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CLINICAL LECTURE ON INJURIES TO THE ELBOW JOINT IN CHILDREN.

By JONATHAN HUTCHINSON, F.R.S.,

Emeritus Professor of Surgery to the London Hospital.

GENTLEMEN,—I have often asked your attention to the fact, that the elbow is almost the only joint which in children is liable to be dislocated from violence. Now and then we see a dislocation at the hip, even in very young subjects, but as regards the shoulder, the knee, the ankle, the wrist, and the finger joints, those of us who have had the largest experience could easily count up all that we have seen. They are exceedingly rare, the cause of their rarity being that, in each, separation of the adjacent epiphysis usually occurs instead. Of this latter accident at the shoulder, the ankle, and the wrist, we see plenty, and at the knee and hip a few; contrary, however, to what is known to obtain at all the other articulations, dislocations at the elbow in young persons, are reputed to be common, more common, I think, than they are in adults. This fact is probably to some extent explained by the circumstance, that in young children the coronoid process is low and imperfectly ossified. It is, of course, in the adult the chief hindrance to dislocation, but in children its cartilaginous tip may easily be crushed down, or possibly detached This explanation, however, does not cover the whole ground. To a large extent, I feel sure that the popular belief as to the frequency of clean dislocations at the elbow in children is a mistake. They are almost all complicated cases, the complication usually being a partial detachment of the lower epiphysis of the humerus. The ossification of the lower end of this bone occurs, as you know, at several separate points. These are, however, pretty much on a level; and whilst it is quite possible for any one portion to be detached alone, it is also quite possible for the whole epiphysis to be cleanly separated from the shaft by a transverse line of detachment, which permits the condyles and epicondyles to pass backwards together with the bones of the forearm. I need not stop to tell you how to distinguish such an injury from a true dislocation, although mistakes constantly occur; they are excusable only by the fact that the swelling is often very great, the child difficult to examine, and anæsthetics usually omitted. I am sure that you will bear me out that cases are very common in which, after the treatment of a case diagnosed as dislocation backwards at the elbow, the joint remains stiff, swollen, and with much apparent thickening of bones for many months afterwards. Other opinions are often sought in such cases, and the surgeon who reduced the dislocation is often discredited. Such cases are almost always examples of displacement of the epiphysis, complete or partial.

I have seen many examples of complete transverse detachment of the whole lower epiphysis, and have had opportunities of demonstrating several to you. Most of them have come to me late, on account of awkward union, but in a certain number I have had an opportunity of examining the state of things immediately after the accident. I show you here a photograph of one which I examined, and had taken within

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half-an-hour of the accident and before any swelling had occurred. The boy had fallen from a horse just by the hospital gates, and was carried straight in, when I chanced to be in the receiving-room. Another such I saw at Stratford, with Mr. John Kennedy. I was visiting another patient with him, when he was hastily called to a little girl of twelve, who had fallen from an apple tree. We went together, gave ether, and had a capital opportunity for examining the points of a most marked example of transverse separation. It was not difficult to get the bone into place, but almost impossible to keep it there. We put it up in a moulded back splint, in which, as in a trough, the elbow rested. Not long after this case, a son of Sir John C., of Sittingbourne, was brought to me for stiffness of elbow, a month after a dislocation. It curiously happened that two years previously I had excised one of his knee joints. He had now fallen down stairs, and, instead of breaking his anchylosed lower limb, had displaced the epiphysis of one elbow. Union had occurred, with much displacement backwards still remaining. The swelling had pretty much disappeared, and the outline of the lower end of the bone was easily distinguished. The elbow was at an obtuse angle, and its area of flexion very limited. I had not sufficient hope of being able to keep it in place to lead me to advise forcible retraction, and we contented ourselves with instituting freer movements. Much improvement has during the subsequent year taken place, and the power of flexion is still far from complete.

Partial separations of the epiphysis are, however, very much more common than complete ones, and much more difficult of diagnosis. Any part of the epiphysis may give way, the central part or either of the condyles. In some cases, in addition to the separation at some part of the epiphysal area there is an oblique fracture of the shaft. You must be prepared for all kinds of complication. It would serve little purpose for me to attempt to describe the symptoms of each variety, a few general rules will serve a better purpose. But then, if there is any obscurity about the case, you may feel sure that the epiphysis is damaged—an uncomplicated dislocation is easy to recognise, easy to reduce, and not very difficult to keep in place. In adults, we all know that dislocations at the elbow are reduced and get quickly well without any stiffness. In children, how different is the prospect! In nearly all cases in them, the elbow remains more or less restricted in its movements. The cause of restriction of movement is not alone the persisting mal-position of fragments, although that accounts for much, it is to be explained in large part by the fact that in such injuries the periosteum is always much stripped up, and that this leads to extensive deposit of new bone. After a while, however, in these young subjects, the bone, although much altered in form at first, becomes remoulded, and in the course of a few years, almost perfect restoration of movement may be expected. Not unfrequently, however, the growth of the bone is, to a certain extent, arrested, and if the separation of the epiphysis had been only partial, it may chance that permanent and very peculiar alterations in form may result. As I have said, we must be prepared for all kinds of displacement, and often it will puzzle the best anatomist to give anything like a confident interpretation of the case; over and over again I have known most remarkable differences of opinion between those who were well entitled to give them, and more than once it has been my lot to save a child from an attempt at the forcible reduction of what was supposed to be an old dislocation, by persuading his surgeon that the case was really one of separation of the epiphysis.

I will not trouble you with citations of cases, excepting just two. One of these illustrates what I have just said as to the formation of lumps of bone, and as to the great difficulty there often is in telling from where they have been detached.

Case 1.—Master L., aged 11, was brought to me by Mr. George Mackenzie, in January, 1882. The history of the injury was that he had fallen whilst running in a meadow, and "dislocated his elbow." His arm in the fall was doubled under him, and his brother rolled on him. The family surgeon, a gentleman of large experience, saw him within half-an-hour, and reduced the dislocation, but said that there was something peculiar in the case, and that he had "difficulty in keeping the bones in." At the end of 5 weeks the boy was taken to a specialist, who used great force, and asserted that he had reduced the dislocation. The elbow was now bent at a right angle, and the hand fastened to the boy's neck. Subsequently, the bandage having been removed, there was, according to the mother's account, a tendency to stiffen in an almost straight position, and the same specialist again forcibly bent the elbow, and fastened it up at an acute angle. The bandage was sealed, in order to prevent its removal, and the elbow kept bent and motionless for three months. It was in this condition that the boy was brought to me, five months after the accident. I found both bones of the forearm dislocated outwards, so that the ulna rested against the capitellum of the radius, and the end of the latter was visible beneath the skin just external to the outer condyle, from which however it was not wholly free. The contour of the inner condyle and adjacent part of humerus seemed natural, and I could not convince myself that there had been separation of any part of the epiphysis.

A most peculiar feature in the case was, however, that in front of the humerus and to the inner side of the ulna there was a large, ill-defined, bony mass. This appeared to be nearly an inch in length, and was deeply placed in the middle of the soft parts. The elbow was so stiff that it was difficult to say whether it belonged to the ulna or the humerus. The most plausible conjecture seemed to be that it had been developed from the coronoid process, which had been completely detached. There was no evidence of other fracture of the ulna, and the outline of this bone from the tip of the alecranon could be easily traced. I advised that the boy should be encouraged to use the elbow as much as possible, and that after a time forcible flexion under ether should be tried. He had at the time I saw him scarcely any movement, either in flexion or rotation.

On Feb. 24, three weeks later on, I examined the elbow under ether, but without establishing any new facts excepting that the mass of bone in front of the internal condyle was certainly fixed to the humerus, and not to the ulna. It was a large hard mass, apparently three-quarters of an inch long. As it was fixed to the humerus, it had probably resulted from some detachment of a part of its epiphysis with considerable tearing up of periosteum. The arm could be bent to less than a right angle, and extended to an obtuse one, but its movements were limited. It was kept in a position of pronation, and could be supinated only to a slight degree.

My next case I quote in order to illustrate a very unexpected direction of displacement of the inner epicondyle.

Case 2.—A young gentleman of 16, whilst playing racquets, fell and struck his elbow against a wall. He was found to have "a dislocation" and within an hour a surgeon reduced it. Nothing further was recognised at the time, but some months later, his father, who was a surgeon, but did not see him in the first instance, found that the inner condyle had been fractured. He was brought to me 6 weeks later, and it was then quite evident that the inner epicondyle was broken

off and displaced downwards, so as to rest against the inner side of the olecranon, where it was fixed a year later. I procured another opportunity for examining the elbow, and found the condition of things exactly as before. On the side of the olecranon was a lump of bone, nearly as large as the end of one's thumb. If not anchylosed to the olecranon, it was certainly very firmly fixed. I could not satisfy myself that there was any motion. The origin of the flexor carpi radialis and also, I thought, a part of the pronator radi iteres could be distinctly traced to this bone. That it was the inner condyle there could not be the slightest doubt, for the part of the humerus from which it had been broken still presented a rough edge, and the condyle had disappeared.

In what manner the displacement of this fragment downwards is effected it is difficult to conjecture, but I have since seen another case, which was in this feature exactly like the one which I have described. Possibly such a displacement can occur only when there is dislocation at the joint, as well as detachment of the epicondyle. Dislocation might be productive of considerable laceration of the soft structures, and be attended by dragging of the epicondyle downwards.

The usual position of the fragment in this accident is, I think, forward in front of the joint, and this is where a knowledge of the muscular attachments would lead us to expect it.

Sir James Paget and Mr. John Wood, both of them, saw and examined the case which I have described. The young gentleman who was the subject of the accident had, when I saw him last, two years after it, regained almost perfect use of the joint.

In conclusion, gentlemen, let me give you a few practical rules for your guidance in dealing with injuries to the elbow joint in young persons.

Never forget the epiphyses, and that they are the weakest part of the bones.

Always suspect that the injury is complicated, in part a dislocation at the joint and in part a displacement at the epiphysal junction.

Remember that simple and complete detachments of the lower epiphysis of the humerus are more common than simple dislocations of both bones backwards.

Never give a diagnosis, if the case is the least puzzling, without putting the child under ether and making a careful examination.

Never be content unless you can easily put the limb up with the elbow well bent.

Be very careful to give a guarded opinion to the parents, knowing that in nine out of ten apparently simple dislocations there is damage either to the coronoid process or the lower end of humerus, and that some impediment to free motion is almost sure to result for a time.

Royal Medical Benevolent College.—The late Dr. William Carr, of Lee, Kent, conceived the idea of founding four free medical scholarships in the College at Epsom, intended for the benefit of orphans of medical men. He contributed largely himself, and obtained subscriptions to a considerable amount, but his death, in March, 1877, prevented his seeing his project carried out, a portion of the necessary sum being then deficient. Mrs. Carr, his widow, who set herself resolutely to accomplish her husband's purpose, has at length collected a sum sufficient to do even more than Dr. Carr contemplated. The original intention was to give each of the scholars £50 per annum, but Mrs. Carr finds herself enabled to increase the allowance to £60; and in addition to this she will have it in her power to present to each of the scholars, on the completion of his studies, £60, with which to commence the world. In this work Mrs. Carr has been liberally assisted by the Duke of Connaught, who, when he was a cadet at Woolwich, was placed under the medical care of Dr. Carr.

ON THE INFLUENCE OF THE AURICLES IN THE PRODUCTION OF CARDIAC SOUNDS AND MURMURS.

Abstract of a Clinical Lecture,

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Clinical Medicine, and Senior Physician to King's College Hospital.

In the strictly normal state of the heart and circulation, the contraction of the auricles is unattended by audible sound; but there are three pathological conditions in which the auricular contractions are directly or indirectly productive of a sound or murmur. 1st. When the surface of one or both auricles is roughened by lymph, we hear a præsystolic or auriculo-systolic brush or friction sound. 2nd. Dilatation with or without hypertrophy of one or both auricles is associated with audible auricular contraction, and consequent doubling of the cardiac first sound. 3rd. In cases of mitral constriction, a præsystolic murmur and thrill result from the forcible propulsion of the blood current through the constricted orifice by the contraction of the left auricle.

In cases of pericarditis, however circumscribed, it is but seldom that the inflammatory exudation is confined to the auricles: some such cases are mentioned in a clinical lecture which I published in the *Lancet*, May 13, 1876. In these cases a præsystolic brush was found associated after death with lymph on one or other auricle. In one case a præsystolic brush between the left nipple and the sternum, and a systolic brush at the heart's apex, were associated with lymph on the right auricle, and another patch on the apex of the right and left ventricle. In cases of acute rheumatism we frequently hear a præsystolic and systolic brush, or, as we may call it, an auriculo-ventricular systolic brush over the base of the heart, unassociated with other physical signs, or with any local or general symptoms of pericarditis. In a fully developed case of pericarditis, the friction sound, which is commonly described as to-and-fro, is invariably a triple sound, rub-rub—rub. The first two divisions of the triple sound occur in quick succession, and are coincident, the first with the auricular and the second with the ventricular systole, the third friction sound occurs after a rather longer interval, and is synchronous with the ventricular diastole; then follows a pause, after which again occurs the rub-rub—rub. The relation of the triple friction sound with the heart's movements and rhythm may be represented as follows:

Rub	Auricular systole.
Rub	Ventricular systole.
Rub	Ventricular diastole.
Post-diastolic pause.	
Rub	Auricular systole.
Rub	Ventricular systole.
Rub	Ventricular diastole.

If any friction sound results from the auricular diastole, this would be blended with the synchronous ventricular systolic friction sound. A friction sound at the commencement of pericarditis is usually single and systolic, but it may soon become double and triple. When the disease is subsiding, the first sound to cease is usually the auricular systolic, then the ventricular diastolic. A single ventricular systolic brush may be audible for days, and even for weeks, after the other signs and symptoms have passed away. It is important to distinguish these exocardial friction sounds from valvular murmurs. A systolic brush near the apex may be mistaken for the murmur of mitral regurgitation. The diagnosis may be aided by observ-

ing that the friction sound is often much increased, and sometimes rendered to-and-fro, by making firm pressure with the stethoscope over the spot where it is best heard. The exocardial sound, too, is often heard most distinctly, not at the apex, where the mitral murmur is loudest, but above the apex over the body of the ventricle; and it is rarely if ever heard at the back of the chest, where a regurgitant mitral murmur is often distinctly audible.

A study of the friction sound which results from contraction of a roughened auricle has helped me, as I think, to understand and interpret the phenomenon of what is called reduplication or doubling of the first sound of the heart. This doubling of the first sound is of common occurrence in cases of advanced Bright's disease, and I have often observed and demonstrated it in connection with emphysema of the lungs and chronic bronchitis. The late Dr. Sibson and other observers have endeavoured to explain the reduplication in cases of Bright's disease by a want of synchronism in the contraction of the two ventricles. In these cases there is high arterial tension in consequence of an impeded passage of blood through the terminal systemic vessels, and Dr. Sibson supposed that this resistance, reacting upon the left ventricle, compels it to contract more slowly than the right, and hence results the doubling of the first sound. One obvious objection to this theory is, that an asynchronous contraction of the two ventricles sufficient to cause a double first sound must of necessity be associated with doubling of the second sound in consequence of the retarded closure of the aortic valves. Another objection is, that the double first sound is heard most distinctly, not at the apex, where, in accordance with Dr. Sibson's theory, it should be, but over the surface of the heart between the left mamma and the sternum. Then it is questionable whether asynchronous contraction of the ventricles is possible. The interlacing of the muscular fibres of the ventricles appears to render their synchronous contraction a physical necessity; and in watching the exposed heart of an animal in the different stages of apnœa, first in the stage of systemic obstruction with extreme distension of the left cavities, and later during the period of pulmonary obstruction, with great distension of the right cavities and almost complete emptiness of the left, I have noticed the uninterrupted exact synchronism of the contractions on the two sides. I have long been of opinion, and the more I have studied the subject the more convinced I have become, that the true explanation of reduplication of the first sound is to be found in the fact, that *the contraction of a dilated, and especially of an hypertrophied auricle, is productive of an audible sound, and that the first division of the double first sound is the result of the auricular systole.* This theory, which was framed simultaneously and quite independently by M. Potain[1] and myself, is consistent with all the ascertained facts. The rhythm of the sounds in cases of reduplication is precisely the same as that of the friction sounds of pericarditis, in the production of which we have seen that the auricle plays an important part. The triple friction sounds being represented by Rub–rub—rub, the triple sounds in a case of reduplication may be expressed by Rat–tat—tat; not that these syllables express the character of the sounds, but their rhythm. The cantering character of the sounds may be imitated by bringing down sharply upon a board in quick succession the ends of three flexed fingers, making the two first taps nearer together that the second and third. The third is, of course, the normal second sound.

The relation of the triple sound to the heart's movements may be represented as follows:

Rat	Auricular systole	Double 1st sound.
Tat	Ventricular systole	
Tat	Ventricular diastole.	Normal 2nd sound.
	Post-diastolic pause.	
Rat	Auricular systole	Double 1st sound.
Tat	Ventricular systole	
Tat	Ventricular diastole	Normal 2nd sound.

In cases of chronic Bright's disease, the left cavities, both auricle and ventricle, are hypertrophied, and the contraction of the hypertrophied auricle is audible in the 3rd left inter-space (that is, about the line of junction between the auricle and ventricle), immediately before the ventricular systole and sound.

With advanced general emphysema of the lungs and chronic bronchitis there is almost constantly associated doubling of the first sound, which is best heard about mid-sternum. In these cases the dilatation and hypertrophy of the right auricle result from the long continued obstruction to the passage of blood through the lungs. In some cases of co-existing emphysema of the lungs and chronic Bright's disease, both sides of the heart become simultaneously hypertrophied, and the reduplication of the first sound is heard over an extensive surface. I have seen many examples of this complication. It is obvious that the theory of asynchronous ventricular contraction gives no explanation of the reduplication which results from a simultaneous equal, or nearly equal, impediment in the pulmonary vessels, the result of emphysema with chronic bronchitis, and in the systemic vessels, a consequence of chronic Bright's disease; while the auricular theory affords a complete explanation of the facts.

A woman now in Twining Ward, under the care of my friend and colleague Dr. Beale, presents some phenomena which afford much support to the auricular theory of the double first sound. A.P.—aged 29, was admitted for disease of the spinal cord. She is thin and anæmic, the front of the chest is flattened. In the third left interspace there is a visible and palpable pulsation which is immediately followed by the ventricular pulsation at the apex in the fifth interspace, directly below the nipple. It is obvious that the pulsation in the third interspace is auricular; over that space there is a double first sound, the first division of the double sound being unusually loud and distinct, while at the apex the first sound is single, the auricular contraction being there inaudible. There is no apparent cause for the dilatation of the auricle in this patient. There is no evidence of valvular or renal disease. I have observed distinct doubling of the first sound over the base of the heart in other cases of simple dilatation of one or more of the heart's cavities without valvular disease or evidence of arterial obstruction either pulmonary or systemic. These cases are inconsistent with the theory of asynchronous ventricular contraction as the cause of the reduplication.

The theory of the præsystolic or auricular systolic murmur and palpable thrill in cases of mitral constriction which attributes the phenomena to the forcible propulsion of the blood by the auricular systole through the constricted orifice, is now so generally accepted and so obviously true as to require no argument in its support.

One of the main objects that I have had in view has been to point out that a careful comparison of the phenomena of the auricular friction sound, reduplication of the cardiac first sound, and the præsystolic mitral murmur and thrill tends to confirm the theory that the doubling of the first sound is the result of an audible auricular contraction and not of asynchronism of the right and left ventricular systole.

[1] "D'un Phénomène Stethoscopique propre à certaines formes d'hypertrophie simple du cœur," by Dr. EXCHAQUET, Interne des Hôpitaux de Paris, 1875.

CLINICAL LECTURES

By J. MATTHEWS DUNCAN, M.D., F.R.S.,
Physician-accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

Lecture III.

TERMINATIONS OF PERI- AND PARA-METRITIS.

You cannot fail to notice the great abundance of cases of this kind in "Martha," half of the beds often being occupied by them, and this commonness is one great sufficient source of importance. Hence also the amount of attention they deserve from you.

You, further, cannot fail to have observed that, while some are tedious, most or nearly all go away with local and general health restored. The sufferers lie in bed under treatment, ailing and sickly, with a temperature chart of rises to 101° or even higher, and falls to normal or a degree below it: then, and often almost suddenly, and generally after three or four weeks, the rises and falls are reduced within the limits of one degree or thereabout, cheerfulness appears, and beauty returns. But there are occasionally fatal cases—septicæmia, pyæmia, sloughing, hæmorrhage, exhaustion, being assigned as causes: they are rare.

It is not the ordinary course of perimetritis and parametritis that I am to consider in this lecture. I desire to call your attention to the rare cases which do not end more or less directly in death or recovery; but in which there are injurious or fatal consequences of the original disease.

The perimetric matting together of parts gives rise to misleading feelings, as of lumps or tumours, and is sometimes very slow in disappearing, the process even occupying years. When such chronic cases come before a practitioner who is unacquainted with the history, he is very liable to be misled into diagnosing fibroids or even cancer: and the aching which the patient has in the lumps, or in the back and limbs, may increase the tendency to mistake.

In the early days of gynæcology (about the first quarter of this century and later) it was held that pregnancy occurring during the persistence of such adhesions entailed great danger to life from abortion and its consequences. But we now know, from large experience, that abortion is very far from being an invariable result of adhesions of the gravid womb, and that danger to life is little increased by them. The minute details of the behaviour of the adhesions, in pregnancy, are not yet described, but of some important points we may be sure. The growing uterus may stretch the adhesions, making more or less long bands, such as are seen in cases of past pleurisy; or, by combined stretching and the rubbing of incessant come-and-go motion, they may be made to disappear altogether. Sometimes, when adhesions are firm, old, and organized, they are not destroyed in this way, but persist till the end. In such a case they may give much trouble during labour. A case was, some years ago, under my care, in which they led to what has been described as persistent retroversion of the gravid uterus. In that case the uterus never became free or mobile.

There are on record some very rare cases where an ovary or a tube, or both, are found isolated, separated from the rest of the genital organs, and adherent to some remote part, say to the colon. This is believed to be produced by well organized strong adhesions, so strong indeed as, in the trial, to prove more tenacious than the natural connexions of the part. The rarity of the occurrence arises from the rarity of such strength of adhesions, and we have already said that, as a rule, they quickly give way when subjected to tension. Peritonitis occurring after delivery may lead to such adhesions high in the abdomen; and then, it may be long after the adhesions were produced, the uterus is pushed down by force sufficient to put the adhesions on the stretch; and, the adhesions not giving way, the force leads to giving way or division of the adherent tube or of the structures connecting the ovary with the broad ligament. The uterus descends, leaving behind it the ovary and tube attached to the colon.

The indurations of parametric inflammation are sometimes very slow in disappearing, and slowness is fostered by work, exposure to hardship, or indiscretions in conduct. Generally, and especially if the patient lies in bed, these indurations melt away more rapidly than those of perimetritis. As they are in progress of contraction and dissolution, they pull the uterus to their own side, and keep it fixed.

Pregnancy may occur at any stage of a parametritis, and be disturbed by it; or, if the pregnancy goes on smoothly, the parametric induration may disappear as it advances. Sometimes, in early pregnancy, the practitioner is, in such a case, alarmed by the fixation of the cervix and its great displacement; and, while I have had to partake in this alarm, I have not seen as yet any disturbance of the progress of labour by it, even though examination after convalescence from confinement showed that the morbid condition still in some degree persisted.

One of the most interesting and practically important points in parametric induration is the rate of its disappearance and the causes of arrest of this good progress to annihilation. It is quite sure that the rate of disappearance varies much, and that it is accelerated by nothing so certainly as by persistent comfortable lying a-bed. A parametric induration or phlegmon is a tender, convex swelling, at first, and pushes the uterus to the opposite side of the pelvis. As recovery begins, it shrinks and becomes flat; and, as convalescence is established, it shrinks more and more, becomes densely hard, concave, and draws the uterus to its own side. At last nothing is felt but the fixed uterus, nailed to the affected side of the pelvis by a very limited dense concave hardness which is not tender to touch. When this stage is reached, we have all the indications of convalescence, and the patient is soon discharged from the hospital, after a residence of from four to eight weeks. The return to home and its duties does not prevent the further desirable progress of the case, the hardness being gradually relaxed and softened, and the uterus regaining mobility and returning to its natural place in the pelvic excavation. Where this relaxation and softening of the parametric induration does not take place or takes place imperfectly, you have a case of what is called parametritis atrophicans.

I have said that return to home and its duties does not prevent completion of recovery, but I believe it always retards it: and we had lately a case in "Martha" where this retardation was so great as to be very noteworthy and instructive as to times. It was indeed scarcely a retardation, rather an arrestment of progress for twelve months. J. C., æt. 22, left the hospital in January, 1882, convalescent, after a left parametritis, not puerperal. The uterus was then fixed and drawn to the left sacro-iliac synchondrosis. She returned in February, 1883, because of increased aching of left hip, menorrhagia, and irritability of bladder. The uterus was found to be as it was when she left the hospital. After four weeks' residence in "Martha" she was dismissed cured.

This patient, you observe, returned to "Martha" after a year's absence in nearly the same condition as when she left it. Finding the uterus fixed to the left side of the pelvis by concave and very narrow induration, we concluded that we had a case of parametritis atrophicans, and we were in error. It was a case of

arrest of progress for the long period of twelve months. The arrest came to an end when proper means were resorted to; and progress was rapid, the uterus gaining the middle of the pelvis as it became freely mobile. The chief of the proper means of recovery was lying in bed, and this she did for a month: besides this, we used local antiphlogistic measures—leeches and mercurial ointment—because there was aching lately increased and some tenderness on pressure. On the use of mercurials I may here interpolate one remark. That they are useful in some inflammatory conditions no one doubts, but they have been said to be useful in destroying old peritoneal adhesions, and this I do not believe. Adhesions are, so far as my experience instructs me, destroyed only by the mechanical processes of rubbing or stretching, or both. But parametric induration may be at any time beneficially affected by mercurials, if it has not reached the inveterate state of atrophicans.

We have said that the uterus may be permanently—that is, for life—fixed by adhesions; and so it may be by the results of parametric phlegmon or abscess. When it is fixed by the cicatricial tissue of a healed abscess the result is easily comprehended: but sometimes, without abscess, the phlegmon, or inflamed cellular tissue, becomes like the tissue of a cicatrix; it has atrophied and become more or less tight or hard—the parametritis has ended by being atrophicans: and by the atrophied tissue the uterus is more or less fixed. Chronic fixation by adhesions is rarely a cause of aching or any kind of suffering, but fixation by this cicatrix-like tissue is not very rarely so. The suffering is that of neuralgia—an aching felt near the part; and it may be intermittent.

Some of the neuralgic aching ascribed to chronic parametric induration may be due to ureteral irritation or obstruction. Ureteritis and ureteral obstruction do both occur occasionally, and it is natural to expect that they will cause some kind of suffering. You must not forget that, besides causing pain, ureteral irritation and obstruction may lead to disease of the kidney—Bright's disease—hydronephrosis—pyonephrosis.

Perimetritis is more rarely a cause of disturbed function of the rectum and bladder, or of inflammation of them, than parametritis. In both rectum and bladder the disturbance arises mainly from more or less severe inflammation communicated to them by contiguity: and of course the suffering is much greater in the vesical than in the rectal complication, and the suffering is greatest when you have a parametritis anterior. In the case of the bladder, the disturbance is very rarely, if ever, mechanical; while in the rectum, if the fæces are not fluid, mechanical disturbance or a degree of obstruction is not very rare.

In perimetritis you may have obstruction of the sigmoid flexure, of the rectum, or of the ileum, by bands of adhesion. Of such accidents I do not here speak: they have no gynæcological peculiarity. In Dr. Church's ward we saw a fatal case of this kind, the ileum being strictured. Parametric partial obstruction of the rectum is rarely sought for, for it is rarely so great as to attract attention. We have lately had several cases of it in "Martha." The obstruction is about as high as the finger can reach, the bowel being encircled by a ring of tissue as hard as bone, the whole firmly fixed and immovable. This condition, in a chronic case, coming before you for the first time, and perhaps without a history, is liable to be mistaken for cancer. In one of our parametric cases, with a sufficient history, it was lapse of time and absence of progress, which alone enabled us to reach assurance that we had not malignant induration. In this case the stricture was so tight as to transmit no more than a finger, and the fixation extended even to the mucous membrane of the stricture part: and the mucous membrane was swollen and not smooth on the surface. These conditions of the mucous membrane lasted only a few weeks, but the stricture persisted when we last saw the patient, about six months after her first dismissal: it caused little trouble. In most cases the morbid rectal conditions disappear just as the main parametric induration goes away.

There is, as I have said, rarely much disturbance by the rectum: oftener by the bladder, and the cystitis may lead to renal disease. The danger from the bladder is easily stated: it is the risk of the cystitis being severe and becoming chronic; the bladder becoming contracted—the case perhaps incurable. The symptoms of cystitis, acute and chronic, and the difficult, and, I am sorry to say, very unsatisfactory, treatment of these affections, do not fall to be considered here.

When long persistent matting, consequent on peri- or on para-metritis, or on both, is found, you should suspect the presence of one or more sinuses, or of sacs of matter, and carefully look for them. There may be no need of searching to find them, for they often open in the groins. Rarely they are found opening in the vaginal roof. They often open in the rectum and bladder, but then openings in these viscera are very rarely discovered. You find induration around the womb, and you find a constant or intermittent discharge of pus per rectum, or per vaginam, or per urethram, and you conclude that there is a sinus, although you cannot find it. We have a preparation from a chronic case which proved fatal by peritonitis acutissima in another region; it shows sinuses opening into the bladder, the rectum, and the uterus.

Lately we had in "Martha" an interesting case worthy of mention here. The woman was 44 years of age, and had been ill for a whole year—that is, since her last confinement with her fifteenth child. She thought herself again pregnant. There was between the uterus and bladder, and rising to within an inch of the navel, a displaceable rounded hard tumour. Three weeks before admission there was a great flow of pus with the urine, and since that time it has always contained a large quantity of pus, but there is no notable increase of mucus. There has been no irritability of bladder: the probe introduced into the bladder made it out to be only slightly contracted and slightly tender: and these circumstances, corroborated by the absence of mucus in the urine, led us to believe that there was only very slight inflammation or only irritability of the bladder, and that the pus must come, not from the bladder, but from elsewhere through a sinus opening into the bladder. At this time we regarded the tumour as probably solid. There being no prospect of our ameliorating the condition of the poor patient, we resolved to search farther for the source of the pus, and with this view dilated the urethra. Then, passing the finger into the bladder, I found a slight prominence on the tumour, rounded, and having on its summit a roughness, and into this, and so into the tumour, it was easy to introduce a probe, and diagnose a suppurating cavity. The pus was discharging freely and the tumour steadily diminishing; the temperature, which had ranged from 101° to 98°, ranged from 98° to under 100° when she left the hospital, to return again for further examination and perhaps further treatment.

Sinuses when established may run very long—years—and then fortunately heal up, and gradually complete cure follows. But you must not forget that sometimes the abscesses unopened persist for years, probably diagnosed as fibroids. We had in "Martha" lately a case that we estimated of five years' duration: it contained fetid pus and fetid gas, and only required opening near the anterior iliac spine. Old sinuses in the neighbourhood of the womb have probably the same pathology as those elsewhere, and they demand

the same treatment. Their persistence depends on mechanical conditions impeding evacuation of a cavity or cavities and healing, or on depraved general health, or on some diseased organ, as a tuberculosis of the ovary, keeping up suppuration. After careful surgical examination and consultation you will do your best by medicine or by the knife. Rarely the cause of delay in healing is carious or necrosed bone, and for the treatment of such a case you have ordinary surgical guidance. Lately, in "Martha," we had a case in a young woman where caries of the crest of the ilium retarded the healing of a large parametric puerperal abscess.

I have read of cases where dysentery was the cause of fatal termination, but I have not seen any. In a fatal case just to be mentioned there was severe diarrhœa. Several cases have come under my notice where persistent sinuses with prolonged suppuration have ruined the constitution and destroyed life by inducing pulmonary or renal disease.

We have just had in "Martha" a good example of death from a chronic perimetric abscess coming on after delivery, and remaining unopened. It led to degeneration of vital organs, and specially of the kidneys, the end being somewhat suddenly produced by an attack of general peritonitis. E. W. bore her second child 20 months before admission to the hospital. She then caught cold, and has never been well since, suffering much from pain in the hypogastrium. For a year she has been getting thinner and weaker, and about four months ago she had much painful diarrhœa. For the last three months she has been confined to bed. Now she is extremely weak and emaciated. Heart has a systolic murmur at apex. Urine copious, of low specific gravity, having a varying but large quantity of albumen. Belly tympanitic. Labia and lower limbs œdematous. Just above the brim of the pelvis is felt a hard, tender, mass, dull on percussion. Vaginal examination finds this hardness, the uterus being displaced backwards, and the bladder found to be extended below the hardness which was diagnosed as a chronic abscess. In this case the bladder prevented us from aspirating per vaginam, and we held a consultation with Mr. Willett, as to opening by dissection through the hypogastric wall. This we decided not to do, because the patient was almost moribund, and we believed the interference would only accelerate the progress to death. At this time the urine was half albumen. The temperature was 97° or 98°, making a sudden rise to 106·6° the day before her death, when it was 97·6°. The pulse varied from 80 to 100. The post-mortem revealed general peritonitis; dilated kidneys, of which the right was pale and fatty, the left pale and disorganized; a sago spleen. A large perimetric abscess was found above the bladder and in front of the uterus, which was pushed backwards, and having its fundus projecting into the abscess-cavity. Both ovaries were cystic, about the size of a hen's egg, the cysts being filled with purulent fluid.

Lastly, I mention some affections of the lower limbs, which, though not ending fatally, are very grave and troublesome. The common parametritic retraction of a limb generally disappears quickly with the disappearance of the disease causing it. Sometimes, in sensitive women, it is a matter of great difficulty to get the thigh again extended and useful. This may arise from mere sensitiveness, or from injury that has been inflicted on the psoas and iliacus muscles. In such cases you may even have to use orthopædic machinery to get the limb extended and restored to use.

Lately a fatal case of parametritis post partum was examined in the post-mortem theatre, and the psoas muscle was found to be destroyed, its place taken by the abscess, and through it, stretched like fiddle strings, passed the bare nerves. This case was fatal; but, no doubt, instances of recovery, after more or less of such destruction, occur; and I mention this case to prepare you for the occasional but rare occurrence of permanent injury to the lower limbs, the injury being of various kinds. I know a case of complete paralysis of a limb, with atrophy, and without contraction. Cases also occur of paralysis of certain sets of muscles; and of paralysis with contraction. Sometimes there is atrophy of the limb, and occasionally a kind of elephantiasis, such as one sees after phlegmasia dolens, and probably owning the same obstructive venous pathology.

If the hip joint has been injured, as by pus forcing its way into it, an event which is on record, you will, if the case survives, have to ask the advice and aid of the surgeon.

ON A RARE FORM OF ITCHING VESICULAR ERUPTION (? HYDROA BULLEUX OF BAZIN).

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The following cases of this disease, which have recently been under our observation, appear to us to deserve careful record. The condition is of special interest, not only because of its rarity (only a few instances having been described), but because, whilst it occupies a position on the borderland of several kinds of skin disease which possess well understood diathetic relations, it cannot as yet be definitely referred to any one of them.

Case 1.—F. B., a portmanteau maker, æt. 20, a tall, thin, but fairly healthy-looking man, presented himself as an out-patient at Charing Cross Hospital in March, 1882, complaining of disease of the skin.

His parents were living and healthy. Of 7 brothers and sisters, one brother was "rheumatic," and another had had rheumatic fever; a sister was said to suffer with a skin affection similar to that about to be described. A grandmother was also said to have had an eruption round the waist of a like character.[1]

He himself enjoyed good health, with the exception of his skin disease and the lassitude induced by disturbed rest. The heart and lungs proved to be sound; the urine free from albumen and sugar. There were scars in the groin from venereal disease, contracted about one year before, but apparently not syphilitic in nature. Since leaving home, some twelve months previously, he had lived indifferently, fish (mostly dried) and shellfish forming a large part of his diet, so that he took on an average ten to twelve fish meals in the course of a week.

On examination of the skin, the following condition presented itself:—Over the trunk, back and front, was a profuse eruption, made up of circular pale red patches, with slightly raised margins, presenting isolated, but somewhat closely placed, vesicles or small bullæ, intermixed with brownish crusts and excoriations. In front the patches were almost confluent, and exhibited a very perfect symmetry of distribution, so that the chest presented an almost continuous erythematous area, bounded by a festooned border corresponding to the margins of the ribs, the border studded with the vesicles and crusts above described.

[1] On personal enquiry, these affections turned out to be Herpes zoster.

Elsewhere on the trunk, the eruption was more broken up, the circular patches less perfect, and more widely placed. Here and there segments only of circles could be traced, or curvilinear outlines, but all were more or less raised and vesicating. The arms and thighs were similarly affected, but in a minor degree; whilst on the thighs and buttocks there were, in addition, many isolated ecthymatous crusts situated on inflamed bases. The legs, forearms, backs of hands, and dorsa of feet were most free from eruption, showing only a few isolated serous and blood crusts placed abruptly on the surface—*i. e.*, unattended by any inflammatory evidence. There were a few scattered crusts of a like character on the neck and face. The vesications were all small, not exceeding a split pea in size; for the most part they were shallow and irregular in outline, and filled with a clear or slightly turbid straw-coloured fluid. A few patches exhibited vesications in the same stage of evolution, but, as before said, they were mostly intermixed with crusts and excoriations. The patient complained that the eruption itched intensely; he habitually scratched the patches when the body was exposed. The many excoriations betrayed the injury done to the vesications by the finger nails, and confirmed the pruriginous nature of the eruption. According to the patient's statement, this condition of skin had been present in varying intensity for about eight months. No medicine had been taken before he came to the hospital. He had never suffered from any skin ailment before.

The above-described eruption steadily disappeared under expectant treatment (alkaline gentian mixture), so that within a month only slight pigmentations remained at the seat of the vesicating patches. Ecthymatous lesions over the thighs and buttocks were still present. The patient continued under observation for 15 months, during which time many partial relapses occurred, and some few acute general outbreaks, such as that described (according to the patient, five). He does not think the body has remained free for longer than three weeks together. In some of the partial relapses the type of eruption was so changed as to present but a very slight similarity to the strongly characterized eruption first seen. For instance, in some relapses there appeared distinct wheal-like lesions, surmounted by vesicles, small bullæ, or excoriations, these being intermixed with single pea-sized bullæ, or small aggregations of vesicles, without accompanying œdema or erythema. All such lesions were liable to present excoriations, the result of scratching. In one attack he had sores in the mouth (palate). In the partial relapses the ringed or patchy character of the eruption was generally suppressed, or but feebly represented. Quite recently the patient again presented himself with a general outbreak, when a portrait of the disease was taken as it affected the trunk and upper extremities. The appearances depicted may be briefly described as follows:—From the root of the neck to the umbilicus the surface is thickly covered with erythematous patches, presenting the greatest irregularity, but mostly of a gyrate or ringed pattern. Nearly all are covered with closely-set straw-coloured vesicles or bullæ, scarcely larger than vesicles. Here and there are rings and S-shaped patches of vesicles, unaccompanied by inflammation.

About a month after the patient first came under notice he began to take arsenic, and, according to his statement, with marked benefit. On this point he has always been most positive, maintaining that a few doses were sufficient to cause the rapid disappearance of the eruption, or check a severe outbreak, which he says he could always predict by the general and extreme itching of the skin. This statement has never been verified, but the strongest reason for believing it is the fact of his continued attendance at the hospital at considerable inconvenience—merely to get the medicine.

Another statement there was reason to credit was, that during an attack some of the wheal-like lesions were produced by scratching or rubbing.

With this case may be mentioned another, which came under observation as long ago as 1877.

Case 2.—R. P., æt. 32, presented himself at Charing Cross Hospital, with an affection of the skin, having the following characters:—The eruption was almost general over the trunk and limbs, and consisted of circinate patches becoming confluent; the margins of the patches presented small vesicles and crusts, so that many patches appeared bounded by a ring of vesicles. There were also discrete vesicles, or small bullæ, scattered over the surface, and even between the fingers. There was much evidence of scratching. Some raised red patches were seen not vesicating. The face and neck were the regions least affected. The itching was complained of as almost unbearable. Exposure to the contagion of syphilis was admitted.

Careful search for acari was made, but with a negative result. No diagnosis was arrived at. Unfortunately the case was soon lost sight of at Charing Cross, but it created considerable interest elsewhere. The patient was admitted into the Middlesex Hospital, under Dr. Cayley, who permitted Dr. Tilbury Fox to take notes of it.. In a communication to the *Archives of Dermatology*, 1880, entitled "A Clinical Study on Hydroa," by Dr. Tilbury Fox, edited by Dr. T. Colcott Fox, the case is alluded to as follows:—"He [the patient, R. P.] is at the present time covered with a large vesicular or small bullous eruption, even to the palms of the hands and soles of the feet. Some parts are less affected than others; thus the back of the trunk less than the front, the head and face very slightly, only a few existing over the whisker area and scalp, the legs very thickly. These small bullæ vary in size from a pin's head to a small pea, but the smaller appear to grow to the larger size, and then usually get umbilicated; the contents get partly absorbed, partly dried up, and a leafy scale is left, which, when joined side by side with others, form large tracts of foliaceous crusts, reminding one of a miniature pemphysis foliaceus. Under these scales a hyperæmic, pigmented, but not excoriated surface is left. When very small, these vesicles have clear contents, but the latter rapidly become milky and yellowish. The eruption rises directly as a vesicle, and there is no precedent erythematous papule to be seen. They are discrete and also aggregated in places in little groups of three or four, but on the left shoulder there is a distinct herpetiform cluster two or three inches square. They are not evolved in rings or festoons, as in inpetigo herpetiformis; and there is one continual succession of vesicles coming out, but more abundantly, the patient thinks, in the night. Lastly, the itching is intense, and consequently many vesicles get broken, and a hyperæmic spot is left, crowned by a reddish black crust."

This was the last of several attacks the patient had had since the first appearance of the eruption. Whilst in the Middlesex Hospital, the patient was shewn at the Medical and Chirurgical Society by Dr. Evans (see *Med. Chi. Proc.*, Feb. 13, 1877), who considered it an example of the disease described by Hebra as *Acne Cachecticorum*. In the account of the case the patient is mentioned as having had five relapses in three months.

It is specially interesting to note in this case that when first seen at Charing Cross Hospital, the markedly ringed type of eruption was altogether different from that described above as the condition present when the patient was in the Middlesex Hospital.

In this respect the case resembled the one (F. B.) first related in this paper—other points of resemblance

being the relapsing character of the eruption, and the extreme itching.

Case 3.—Mrs. C., æt. 21, the mother of one child, came to the out-patient department of the Brompton Hospital on November 13th, 1882, suffering from chronic phthisis of both upper lobes, and from an extensive and severe eruption on the skin.

The family history was remarkable:—The mother, sister, and seven brothers of her mother's father, all died of phthisis. Her mother's mother and brother both suffered from the same disease of the skin, and her mother was still the subject of this condition (and attended shorly afterwards as Case 4). In the case of the grandmother, the disease disappeared at the climacteric period. The only child of the patient, æt. 18 months, exhibited within the first year of life, one or two blisters as large as a pea, but no extensive eruption at any time. Her father was said to have died of cancer of the lungs.

For 6 years she had had cough in winter; and she was now suffering from the usual symptoms of phthisis of very moderate intensity. The present eruption began at the age of 8, since which time she had never been free from it for more than two years—between her 13th and 15th years. The disease was worse during pregnancy.

On the occasion of the first visit, the patient, who was a weakly woman with a badly nourished, rather flushed aspect, presented no active manifestation of the eruption. On her return, after three weeks, she stated that 14 days before, on November 20th, a fresh eruption of the usual kind had made its appearance. During the night chiefly, the skin began to itch intensely; wheals rose, as in nettle-rash, and very quickly became small blisters; and these were either ruptured by scratching, or broke spontaneously in the course of a day. For another day the spots continued to weep, and they then healed.—On examination it was found that the whole of the front of the abdomen, the loins, the thighs and the legs, were covered with patches of skin-disease. This consisted of urticarial wheals, bullæ, and vesicles of various size, partly whole and partly broken, and remains of dead epithelium clinging to red, pigmented, or raw areas of the skin. The itching was still intense, so that the patient was unable to refrain from scratching the skin during examination. The most profuse part of the eruption corresponded with the waist, the region of the umbilicus, the shoulders, armpits, buttocks, thighs, and garter-region, and one patch occupied the areola of the right breast. The lower limbs were less profusely covered than the trunk, the abdomen presenting hardly a single spot of skin which was not affected by the disease in some stage or other. The head, neck, and arms were perfectly free.

One month later it was found that the old eruption had entirely healed, and that fresh spots had come out steadily. On February 8th, 1883, the skin was almost free from disease; but by March 1st, fresh crops were appearing, and Liquor Arsenicalis ℥ iii was ordered three times a-day. Three weeks later there was no improvement; the arsenic was followed by sickness and occasional diarrhœa. The dose was therefore reduced to ℥ ij. t.d.; and in the course of the next two months there was a very decided improvement in the state of the skin, the eruption being entirely absent for longer periods, and less severe in all respects when it did re-appear.

Case 4.—Mrs. W., æt. 45, the mother of Mrs. C., case 3, referred to above, came as out-patient to the Brompton Hospital on April 2nd, 1883, suffering from cardiac disorder, and an eruption similar to that on her daughter. The family history has been recounted above.

The patient has had 6 children and 5 miscarriages, and was always weakly after her confinements. The eruption has appeared at intervals, "as long as she can remember," and was always worse before menstruation and during the whole time of her pregnancies, so that she could tell she was *enceinte* by the state of her skin. *Post partum* she always improved. The longest period of freedom from eruption was about 3 years, whilst she was at Brighton. The affection has always involved by preference the same regions of the body as in her daughter, except that the shoulders have escaped. The arms, face, and ears have always been free. Itching has been intense at all times, and the eruption smarts when the blisters have broken.

A rather thin, but not specially anæmic woman, with a flushed, nervous, heated appearance, active and intelligent, she now presents patches of a rough pigmented appearance over the front of the abdomen, evidently the remnants of a past eruption. She says that any irritation of the abdominal wall would suffice to bring out "lumps" with great itching, and occasional vesication, but that the condition is much less marked now than formerly. The lungs are healthy; the pulse varies much in frequency; the cardiac impulse is distinct, rather low and towards the left in situation; the sounds are loud, but there is no murmur. The patient suffers from occasional palpitation and left submammary pain. Digestion is fair; bowels regular. Menses still regular. To have ℥ ii Liq. Arsenicalis t.d.

Three weeks later, the patient said she felt stronger for the medicine. The eruption was certainly less, no large spots being visible, but a small eruption came out when she was heated, with great itching, which "would raise the spots if she yielded to the desire to scratch." The patient spontaneously stated that perspiration had been less since the mixture was begun. To have ℥ iii of the Liquor Arsenicalis t.d.

Again in three weeks, the eruption proved to be less severe in degree, but to be as readily induced by heat. Ordered ℥ iv of the arsenical solution t. d.

One month later, the eruption was found to be insignificant—in the form of a diffused redness of the skin, without vesicle or sore, but still itching.

A considerable number of cases more or less resembling those above related are to be found scattered through recent medical literature, under various names, but chiefly under the name of *Hydroa*. Whether they deserve a distinctive name is still debateable. On the one hand, there is felt the want of a name for these cases, which may be said to possess a certain individuality; on the other hand, there exists a laudable desire to simplify as much as possible the already encumbered nomenclature of skin diseases, and above all not to distinguish by fresh names diseases which do not differ essentially from others which are already named.

As some obscurity attaches to the extent of the modern acceptation and application of the term Hydroa in this country, a short *resumé* of the subject may not be out of place. *Hydroa* (ὕδωρ, water), is an old Hippocratic term. Bazin revived it and applied it to a group of cases which he said occurred in arthritic subjects, hence the heading under which hydroa, with other diseases was classed, namely, "*arthritides*."

Three varieties were described:—1, Hydroa vesiculeux; 2, Hydroa vacciniforme; 3, Hydroa bulleux (*pemphigus à petites bulles*). The first variety, *Hydroa vesiculeux*, may be briefly described as a disease which may or may not be ushered in by slight constitutional disturbance. Numerous slightly-raised red and circumscribed disc-like blotches appear most constantly on the backs of the hands and wrists (other regions may be affected). In size the blotches range from that of a lentil to that of a 20-centime piece. Soon there appears a transparent vesicle (or small bulla) which rapidly desiccates in the centre, while the

fluid at the circumference becomes re-absorbed. The lesions now put on a special appearance—little red discs are seen with central courts surrounded by a whitish slightly-raised ring. This ring is formed by the macerated and detached epidermis left after the partial re-absorption of the fluid. Successive crops of eruption take place, and the disease may be prolonged for a month. The buccal and labial mucous membranes may be similarly affected.

The second variety, *Hydroa vacciniforme*, may be passed over—Bazin saw only one case, and attempts by other observers to identify the disease have not been successful.

The third variety, *Hydroa bulleux*, is the only one we are most concerned with in connection with the cases just detailed. Bazin's description is nearly as follows:—Hydroa bulleux is an arthritic affection but litttle known. An eruption preceded by malaise, loss of appetite, and slight febrile disturbance, is seen on the arms, trunk, insides of thighs, and occasionally the buccal membrane—the only prodromal phenomenon which seems constant is intense pruritus. The eruption consists of bullæ filled at first with clear fluid, but soon becoming opaque yellow. They occur in groups of three and four on a red surface. The bullæ are unequal in size, ranging from that of a lentil to that of a split pea, which size few exceed. While fresh bullæ are coming out, the older ones dry up and are replaced by a yellow crust. The patient retains his appetite, and nutrition is not interfered with. The disease runs a chronic course, manifesting itself by successive outbreaks and lasting altogether five or six months.

The above then are two diseases to which Bazin gave the name of Hydroa. It seems, however, that they had been described in this country by Willan and Bateman—the first under the name *Herpes Iris:* the second probably under that of *Herpes Phlyctænodes.* Herpes iris was described by those authors as a disease possessing similar clinical features to those peculiar to Hydroa vesiculeux. It was characterized locally by disc-like lesions with concentric vesication. Bazin, after he became acquainted with Willan and Bateman's description of Herpes iris, admitted that the disease was identical with Hydroa vesiculeux.

Some time ago Hebra published his views concerning the nature of erythema—the form of it which runs a definite course and has a special tendency to affect the backs of the hands and wrists, insteps, face, &c. He showed that whether the disease appeared in the form of papules (E. papulatum) or in the form of tubercles (E. tuberculatum), in the forms of single rings (E. circinatum), or concentric rings (E. iris), the clinical symptoms were the same, and united them all in one common bond. Further than this, Hebra recognised the fact that the inflammatory process giving rise to this erythema was one which observed no abrupt limit, and that it frequently terminated in the separation and exudation of the watery principles of the blood between the epidermis and true skin; at such times leading to vesication in various forms. It was but a short step, therefore, to include Willan and Bateman's Herpes iris, which, although possessing certain peculiarities, was obviously of the same nature.

For all these different forms of the same disease Hebra invented the term *Erythema exudativum polymorphicum.* As regards the use and application of the term Hydroa in this country, it has been applied to vesicular forms of erythema multiforme indiscriminately (Report on Hydroa, *British Medical Journal*, 1870). Later still (1875) it has also been applied by Mr. Hutchinson to vesicating forms of Iodide of Potassium eruptions.

So far an attempt has been made to elucidate the subject with regard to Hydroa vesiculeux. It remains to be considered what cases are to be identified as corresponding to the other variety, Hydroa bulleux, and what their relation may be to other diseases.

Besides the cases detailed above, which are assumed to correspond to Bazin's Hydroa bulleux, other cases of a like character will be found in the article referred to by Drs. T. and T. C. Fox; and others again in an article by G. H. Fox, of New York, in the *Archives* for July, 1878. It may be pointed out (1) that the distribution (back of hands, forearms, face, insteps) is in these cases not specially noticed; the eruptions are general, with a tendency perhaps to exempt the face. (2) Itching is a very constant and most marked symptom. In these respects they differ from the cases which belong to Erythema multiforme (Hydroa vesiculeux or Herpes iris). Again (3), the eruption relapses over a period of many months. Although this is only a question of degree—the erythemata tending to relapse—yet these Hydroa bulleux cases are certainly more chronic. Lastly, there are (4) the objective characters of the eruption—lentil-sized to pea-sized small bullæ, varying in their arrangement in individual cases, and in different relapses in the same case, occurring singly, in groups, or in circles or segments of circles, the whole complicated with secondary lesions due to scratching—viz., excoriations, urticarial wheals, and ecthymatous lesions from the inoculation of pus. Thus it comes about that the appearances presented by these eruptions are some of the most complex and bizarre it is possible to meet with.

Are these cases, then, sufficiently individual in their characters to constitute a group by themselves? or is it possible to recognise in them examples of more well known diseases, so to speak, in disguise? For reasons already mentioned, they seem not to be so closely related to the erythema group, but to bear a close resemblance to other diseases, such as Pemphigus, Herpes, and Urticaria. Bazin notes the fact that the disease he described as Hydroa bulleux was already known as *Pemphigus à petites bulles.* Such cases have also probably furnished material for the description of Pemphigus pruriginosus. Recognising the danger of judging by anatomical appearance, it must be admitted that the pemphigus bulla is, as a rule, very different from the large vesicles or small bullæ encountered in this disease. Especially may be mentioned its peculiar abrupt character or absence of surrounding inflammation. Both diseases relapse over a period of months or years; but in Pemphigus a cachexia is readily established, which at times proves fatal. None of the cases described as Hydroa bulleux seem to have materially influenced the health. There is one fact (if it be a fact) that would help to link these curious cases with Pemphigus, and it is the influence on them for good of arsenic. The drug is not mentioned as having been tried in many cases; but what facts are noted, are favourable as to the benefit derived from it.

The cases bear a certain resemblance to Herpes in the grouping and fleeting character of the vesicles. No special nerve distribution is affected however; the grouping is not of that corymbose character peculiar to Herpes zoster; nor are the attacks associated with catarrh or rigor, as is the case in catarrhal herpes.

But perhaps these cases fit in with urticaria as well as with any other disease. The intense pruritus, the general distribution of the eruption, its erratic character and tendency to vary in pattern, especially to affect ringed and serpiginous types, its relapsing tendencies and probable localization in some cases by mechanical irritation of waist bands, garters, &c., are all points suggestive of urticaria. With regard to the last mentioned peculiarity, it may be conjectured that these cases, where the disease persistently attacks the mechanically irritated positions, are analogous to those

cases of so-called "factitious urticaria," where the simplest mechanical irritation is sufficient to raise a wheal.

There are, however, no ætiological facts as yet available to support the urticarial relationship, unless the arthritic tendencies which are common to the two diseases be accepted as such. Lastly, the anatomical appearances of the eruption present but a trifling objection, when it is remembered that experience has taught us to attach but little importance to these in association with diseases presenting cutaneous lesions of a purely inflammatory type. Polymorphic exudative erythema is now recognised; would it not be as well to admit a polymorphic exudative urticaria? Cases of "Urticaria bullosa" have been already described.

For such cases then as those detailed above, at any rate until more is known about them, there is some reason to retain the name Hydroa. As for the other variety, there seems to be little room for the name, inasmuch as they are well included as cases of polymorphic erythema.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

JAUNDICE FROM IMPACTION OF GALL-STONE IN COMMON BILE-DUCT. GENERAL TUBERCULOSIS WITH TUBERCULAR PERICARDITIS, AND MENINGITIS. DEATH.

(Under the care of Dr. FREDERICK TAYLOR.)

T. T. H., æt 60, was admitted into Guy's Hospital, under the care of the late Dr. Hilton Fagge, on February 21, 1883, and was transferred to Dr. Taylor's care with the Clinical wards on April 1st. The following history is from the notes of Mr. S. Worthington, M. B. and Mr. H. H. Wright.

The patient is a bricklayer, and has enjoyed very good health, the only illnesses that he remembers being gonorrhœa 30 years ago, and a strain in the right side, which happened 4 years ago, and was followed by diarrhœa for 6 weeks. He has been a heavy drinker. He dates the present illness from October, 1881, when he got thoroughly wet through and subsequently drunk, so that he was a long time in his wet clothes. Though not apparently much worse for this at the time, he has ever since been getting weaker and thinner, and unfit for a day's work. In August, 1882, he first noticed the jaundice, which was not very intense at first, but has continued with variations ever since, on the whole increasing. During August, he also had epistaxis; he gave up work, went to Bournemouth, and then first felt pain between the shoulders and across the loins. Piles troubled him about the same time. For two months he had much itching, but this has been lately less troublesome: the urine is now less dark-coloured than it was; the bowels have been generally rather confined, and clay-coloured. He has had no indigestion or morning sickness. He gained a little weight at Bournemouth, but the last month has had a bad cold, and has been suffering from shortness of breath.

On admission:—He looks worn and thin; he is jaundiced, but not intensely. There is no itching, no xanthelasma, no œdema. The tongue is moist, with a whitish fur, especially at the edges. Appetite fair, but he cannot eat much meat, and has a distaste for fat. He is thirsty. The bowels act every other day; motions clayey. Abdomen rather large and rounded; the walls rigid; subcutaneous veins enlarged; no evidence of ascites. Hepatic dulness extends from the 6th rib to 1½ inch below the ribs in the mammary line, and in the middle line halfway to the umbilicus. The liver cannot be felt. Splenic dulness extends to the 12th rib. There is no pain or tenderness. He has a slight cough, with frothy, watery sputum; the chest sounds appear quite normal. The heart's impulse is forcible and diffused, and the second sound is accentuated in the pulmonary area. There is no murmur; radial arteries hard and tortuous. P. 88. Urine clear, brown, containing bile pigment, and giving a purple or lake tint with Pettenkofer's test. No sugar, a small quantity of albumen and a few blood discs. He was troubled with headaches at first, but is less so now; he has pains between the shoulders, and in the loins. He is depressed, and melancholic, attributing his present condition to his past excesses; he usually answers intelligently, but now and then makes an irrelevant remark. T 101·2°. Ordered Bicarbonate of Soda, and Succus Taraxaci.

February 23rd. The motions this morning contain no bile, but a large amount of fat. During the next few days it was made out that the liver dulness extended to the umbilicus, and it was tender on pressure; the abdomen also contained a little fluid, and measured on the 28th, 31¾ inches. The urine was passed frequently at night, and contained a few broken pigmented casts, and a few blood discs. The temperature was constantly high, from 99° to 101° in the morning, and from 101° to 103° in the evening.

During the month of March the symptoms varied a good deal. The tenderness over the liver disappeared and he became less jaundiced. The motions appeared to contain bile on the 2nd; on the 12th they contained no appreciable amount: but on the 22nd he was seized with abdominal pains, diarrhœa and vomiting; and on the 28th, it is noted that the motions contained the full complement of bile. The urine became a little less icteric, but a trace of albumen persisted; the ascites became more evident. On March 12th a very hard and distinct nodule was felt, about three inches directly to the right of the umbilicus.

On April 6th, fresh symptoms developed. He complained of pain in the left side, and on examination there was found a loud pleuritic rub below and outside the left nipple; and posteriorly below the scapular angle on the same side, dulness, feeble breath sounds and absence of tactile fremitus. On the following day there was faint bronchial breathing over the same area; and on the 8th a pericardial rub was heard over the whole præcordial area. There was scarcely any pain in this region. This rub was no longer heard on the 12th, but the heart's beat was very forcible. He was ordered Quinine mixture, and Dover's powder at night. During the rest of this month dulness and faint bronchial breathing continued at the left base, but the pleuritic rub gradually diminished. The patient became thinner and weaker. The jaundice and the condition of the liver remained much as before; the former was always present, but seemed to vary much in intensity from day to day. During May he had pain over the abdomen from time to time; he slowly emaciated. He was subject to various mental delusions, and passed his motions under him. Throughout, his temperature had been above normal, ranging between 99° and 102°, and generally about two degrees higher in the evening than in the morning. On May 29th he had a sort of fit; he was noticed to be drowsy and apathetic about 8 p.m., and half-an-hour later he was comatose with stertorous breathing, and the jaundice assumed an earthy tint. He continued so about an hour, and then slowly rallied, putting his hand to his head, and rolling his eyes from

side to side. He had at the same time marked Cheyne-Stokes respiration. The following morning he was dazed and stupid; passed urine and fæces into the bed. On the 31st he had a second fit, with convulsions of the whole body, the mouth being drawn to the left. This was followed by coma, from which he recovered in about 20 minutes, remaining, however, quite demented.

June 2nd. A little more sensible, but his mind soon fails him on talking. About 2 ounces of blood passed from his bowel. June 8th. Another fit to-day: he is more jaundiced. He has pain in the right shoulder, and the right arm is weak. June 10th. Moribund: another convulsive attack this morning. Death at 1 p.m. For several days his voice has not been strong enough for bystanders to understand, but he spoke to the Clinical assistant three hours before his death. The temperature was pyrexial till June 7th, when it fell to subnormal and remained so till death.

The *post-mortem* examination was made by Dr. Goodhart. Much emaciation, deeply jaundiced, olive-green brown. *Brain*, 56 ounces. Excess of fluid on the surface and in the ventricles. Numerous yellow tubercles spread up from the Sylvian fissures over the membranes on the outer side of the hemispheres to the cortex. Extensive meningitis of the base extending into the Sylvian fissures, particularly on the right side and at the hinder part of the right Sylvian fissure. *Lungs:* Recent pleurisy at left base. Both organs studded throughout with small nodules of clustered tubercle, stained yellow with bile. The upper lobes were most affected, and the disease spread more down the anterior borders, where there were masses of considerable size, presenting on section the appearance of caseous pneumonia, and softening into cavities. Two patches of this kind were adherent, one on each side, to the pericardium itself. *Heart*, healthy. The pericardium was toughly adherent all over. On both surfaces a layer of tubercles in the subpericardial tissue, growing still as tubercles with vascular zones around them, but tending to form a thin plate or layer all over the affected surface. *Peritoneum:* A few tubercles on the surface of the spleen and liver, and many on the diaphragm. The *small intestine* contained tenacious mucoid matter, giving no reaction with nitric acid. *Liver:* Capsule adherent to diaphragm; colour, dark olive-green. Texture not noticeably altered, and no appearance whatever of cirrhosis. No marked dilatation of any of the smaller bile ducts, that is to say, no cavities in the liver. But all through, the main ducts were thick and had a good deal of œdematous connective tissue outside them, perhaps in excess. In the left lobe these showed as dilated ducts at the thin edge of the liver, and looked at first like lymphatics, but they contained a glairy mucus, and a probe passed easily from them into the larger ducts. The main ducts were thick, and contained a thin mucoid fluid, which gave a slight reaction to nitric acid. The common duct was dilated from the junction of the two hepatic ducts, in the portal fissure to its termination. It was quite an inch in diameter. At the upper end it had a saccular form and looked scarred, as if a stone had lain there and perhaps produced ulceration. In the last half inch of the dilated duct was a large gall-stone; and the orifice was stretched over this, and exuded some bile-coloured muco-pus on pressure. The wall of the duct was thick, like an aorta. The gall-bladder was closely contracted upon three facetted gall-stones. One of these had set up inflammation of the fundus, with adhesion to the colon, which presented a ragged ulcer at this spot perforating the gall-bladder.

Kidneys:—One or two small tubercles in the cortex; otherwise healthy. *Spleen*, 15 ounces, many yellow tubercles. *Pancreas*, rather small, tissue normal, duct not dilated.

Remarks (by Dr. Taylor).—The case forms an exception to the general rule, that long-continued obstructive jaundice in old people is due to cancer of the bile ducts. This, indeed, was the diagnosis first made; and there was little to contradict this view of the case. He had some tenderness, but no local pain; and the absence of definite tumour was explained by assuming it to be in the portal fissure, the mass which was occasionally felt being, no doubt, the gall-bladder with its contained stones. The detection of a certain amount of ascites, was again in favour of a tumour in the portal fissure. This fluid seems to have been absorbed before death. On the other hand, the jaundice and the colour of the urine and fæces varied from time to time, and this would militate against the view of a persistent cancerous obstruction. But even now it is remarkable how any bile passed by the large gall-stone found in the duct. The severe radiating pain of ordinary biliary colic he seems never to have had, but only such slight pains as might be due to more common ailments. Another interesting point is the ulceration of the colon, into which part of the bowel no doubt the gall-stones would have been discharged, had he lived a little longer. One may ask whether his jaundice would not then have been cured by the establishment of a free exit for the bile. Unfortunately this was prevented by the progress of an entirely distinct pathology, namely, general tuberculosis. The first physical evidence of this appeared two months before death in the simultaneous pleurisy and pericarditis; but there can be little doubt now that his uniformly pyrexial state was due to the tuberculosis, and the cough and shortness of breath noticed before admission were indications of the same. It is surely rare that a patient with tubercular meningitis is conscious enough to speak three hours before death.

UNIVERSITY COLLEGE HOSPITAL.

SQUAMOUS EPITHELIOMA OF LOWER JAW—EXCISION—RECOVERY.

(Under the care of Mr. CHRISTOPHER HEATH.)

ALEX. D., æt. 56, was admitted on October 29, 1883.

History.—Patient is a married man, and has four children alive and healthy. He has always had sufficient food and clothing. Has had typhoid fever, and for a short time was a little out of health from overwork, otherwise has never been ill. There is no history of cancer in his family, nor of tumours of any kind. Patient has never smoked much.

Present Illness.—He first noticed a swelling on the left side of his face four months ago; he has suffered from toothache a good deal, and has lost all the teeth behind his lateral incisor on that side, and all those behind the canine on the right side. When first noticed, the tumour was about as large as a small walnut; it was situated near the angle on the left ramus; it was neither painful nor tender; it has steadily increased in size. Since the growth appeared he has had earache; it has in no way interfered with mastication.

Present State.—On the left side of the face is a rounded swelling with a smooth surface, which extends from the middle of the vertical ramus of the jaw above, to the level of the hyoid bone below; forward to the symphysis nearly. The angle can be felt distinctly; but its outline is rounded by the growth.

The swelling is firm and inelastic; its surface is perfectly smooth, and it is firmly fixed to the jaw. The growth projects into the mouth as a large, red, roundish

mass, with the surface flattened, and sloughy ; it reaches as far back as the vertical ramus, and encroaches about one-third of an inch into the floor of the mouth. There is now at times an aching pain ; but no shooting pains have been experienced.

November 1.—The patient being under chloroform, Mr. Heath made a vertical incision through the lower lip in the middle line, and another at right angles extending to the angle ; the flap was then detached from the tumour and turned upwards ; he then sawed through the jaw between the right canine and incisor teeth ; separated the tongue attachments and other soft parts inside and outside the mouth, and then disarticulated the diseased half, nipping off the tip of the coronoid process with forceps. There was not much bleeding ; each vessel was tied as it was cut. Iodoform was well rubbed in, and the wound sewn up. Two hare-lip pins were put in to close the vertical incision through the chin. Iodoform and salicylic wool were used for the dressing. For some hours after the operation, the patient could not swallow, and he was given enemata.

Examined microscopically (by Mr. Horseley), the growth was found to consist of a fibrous stroma, in which numerous leucocytes and spindle cells could be seen scattered about ; also large columnar masses of squamous epithelium cells, many of which were collected into "birds'-nests" groups.

November 4.—Hare-lip pins removed ; the wound, both inside and outside the mouth looking well.

November 7.—Was a little "off his head" last night, and tried to dress himself. He appears all right at present. Temp. 101°. Urine Sp. Gr. 1·015. No albm. No sugar.

November 8.—Again rather delirious during the night. He is being fed through an india-rubber tube, and keeps his food down well. The wounds are looking healthy.

November 27.—The patient has been steadily progressing up to this date ; the wounds are nearly healed ; he can take both fluid and solid chopped-up food without much difficulty. The man's general condition is very satisfactory. He was discharged.

Remarks by Mr. Heath.—Epithelioma occurs in the lower jaw in two forms, the columnar and the squamous. Columnar epithelioma occurs in connection with multilocular cysts and with single cysts, as was first pointed out by Mr. Eve, in his lectures at the College of Surgeons last year. Squamous epithelioma is the more common form of disease, and is found both in connection with ulceration of the gums and as a tumour of the jaw. The general characters of squamous epithelioma are well seen in the foregoing case. Rapidity of growth, with destruction of the bone and fungation into the mouth, are the leading characteristics, and nothing but early and free removal offers any chance of relief. In the above case the jaw in its upper part was apparently healthy, but I had no hesitation in disarticulating so as to be thoroughly beyond the disease, and I also went well into the healthy bone at the point of section, so as to avoid as far as possible all risk of recurrence.

A Pocket Picric Acid Test Case.—Messrs. Hawksley have devised, and are about to introduce to the notice of the profession, an apparatus for applying the picric acid test, which might almost be called a waistcoat pocket urinary test case. It consists of a graduated test tube, holding two small phials filled respectively with picric acid and fragments of potash, each fragment weighing a grain. The whole is enclosed in a cylindrical leather case. The use of picric acid in testing for albumen, and of picric acid and potash for the quantitative estimation of sugar in urine, is now so well known to, and so thoroughly appreciated by, the profession, that the usefulness of this new appliance will be generally admitted.

EAST LONDON HOSPITAL FOR CHILDREN.

ENTERIC FEVER—FALL OF TEMPERATURE ON THE NINTH DAY—RELAPSE—RECOVERY.

(Under the care of Dr. EUSTACE SMITH.)

A little girl, aged nine years, was perfectly well on September 14th. On the following day, the 15th, she complained of chilliness and frontal headache. That night the skin was noticed to be hot, and for the next week the child was apathetic, languid and feverish, complaining of headache and abdominal pain. She did not vomit and there was no bleeding from the nose. The child was seen on the 22nd ; her temperature was then 102°, and a rose spot was noticed on the abdomen by Mr. Scott Battams, the house surgeon. On the 23rd (ninth day) she was admitted into the hospital. The abdomen was then moderately distended ; the spleen could be felt two fingers' breadths below the ribs ; no spots were seen ; the temperature in the evening was 102·6°.

After this date the temperature was never higher than 99° and a fraction ; the child looked and expressed herself as well ; the spleen quickly retired under the ribs ; the appetite was good and the patient complained much at being restricted to liquid food. On October 5th, the temperature having been normal for twelve days (with the exception that on one occasion, in the course of September 27th, it rose to 111·3°) and subnormal for six, the child was put on ordinary diet. Two days afterwards the temperature rose to 102°, the spleen began to enlarge, rose spots appeared upon the abdomen, and the patient passed through a well-marked relapse of typhoid fever, which lasted nine days.

Remarks :—It is well known that in children enteric fever often assumes a mild type, and soon comes to an end. It is common for the temperature to become normal at the end of the second week ; and during the course of the illness, although the fever is high, the general symptoms are insignificant, and little distress is manifested by the patient. It is, however, exceptional for the temperature to fall as early as in the present instance. The pyrexia ceased on the ninth day, and the child seemed so well that a meat diet was allowed, under the idea that our first impression of the disease had been a mistaken one. The prompt occurrence of a typical relapse, however, at once removed our doubts as to the nature of the primary attack.

South London School of Pharmacy.—The following prizes were awarded to the successful competitors at the School examination terminating the 7th December, 1883, and presented on the 21st ultimo :—Senior Chemistry—Mr. Burford (medal), Miss Flora Mitten (certificate) ; Junior Chemistry—Mr. Williams (medal), Mr. Heaver (certificate) ; Botany—Mr. Wilkinson (medal), Mr. Burford (certificate) ; Materia Medica—Mr. Heaver (medal), Messrs. Williams and Wilkinson (equal) (certificate) ; Pharmacy and Dispensing—Mr. Heaver (medal), Mr. Turner (certificate). Extra certificates were gained by Messrs. Dutton, Hall, Taylor, and Pomeroy.—Ed.

Glasgow Fever Hospital.—A fire broke out on Tuesday last in the above institution. The roof of the laundry, which was connected with the main building, was destroyed, but the flames were quickly extinguished, and although considerable alarm was felt among the officials and patients of the hospital, it was not found necessary to remove any of the latter.

Medical Times and Gazette.

SATURDAY, JANUARY 5, 1884.

A MOVEMENT has for some time been on foot in the profession, originating with the members of the British Medical Association, for the purpose of founding a society for mutual assurance against sickness. The machinery of the Association, with its branch organization, evidently affords a highly valuable means for carrying out such an organization effectually. A similar attempt was made many years since, and not altogether without success, but at that time the organization of the Association was much less extensive than it is now, and the number of members belonging to it comparatively limited; nevertheless several hundred persons joined, and though the society ultimately came to an end, it was rather from inanition than from any other apparent cause. The claims made upon the funds were very few, and adequate means do not appear to have been taken to make the operations of the society continuously well known, and to keep it in active operation. In the end the whole of the funds were returned and no loss was incurred by the subscribers.

DEMANDS for the re-formation of such a society have been repeated for many years, and the project, we are glad to see, has at last taken definite shape. A meeting in connection with it was held, it will be remembered, during the last annual session of the British Medical Association at Liverpool, and documents were presented, showing the written adhesion of upwards of 600 members of the Association to such a society in principle. A provisional committee has been formed, tables have been constructed by Mr. Neison, which include not only temporary and permanent sick pay, but also other benefits such as are usual among Friendly Societies, viz., limited life assurance, and permanent annuity after a certain age. Copies of the draft rules and tables will be found in our advertisement pages, and in view of the constant and repeated applications for charity owing to the breaking down in health of the members of the profession in limited practice, as well as in consideration of the hardships and sufferings that many have to undergo, owing to the loss of income incurred during severe illness, and the absence of means to provide a *locum tenens*, it is to be hoped that the society may be conducted to a successful end, and may cover a large surface in the profession. It appears to be based on a principle of providence which cannot be too strongly encouraged, and if successful, as in the opinion of high actuarial authorities it may fairly be expected to be, such a society will obviously confer a great boon on the profession, and its organizers will be deserving of all gratitude.

THE *Scotsman* of Friday last published an able article on the episodes of interest to the Medical Profession which occurred during the past year. It remarks on the deserved honours profusely showered on its leaders by the State with one hand, while with the other it has dealt blows of the most fatal character against the responsible body of general practitioners. Speaking of the political powerlessness of the profession, it holds that in these days of sanitary reform the men who should most naturally be looked to for taking a leading part in the direction of affairs, and in the formation of a healthy public opinion, are those who, alike from their training and their daily duties, are capable of appreciating the surroundings of the poor and of gauging the difficulties of their lot. Whether in imperial or local politics, the influence of men of scientific training is much to be desired, and in the future must have a wider application than in the past.

CONTRASTING the higher honours conferred on successful generals with the treatment of men of science, the *Scotsman* considers it anomalous that a man like Parkes, whose life-work was devoted to the beneficent end that armies might be kept safe from outbreaks more fatal in war than shot or shell, should go to the grave scarce noticed by the country he had served so well, and that Farr, the founder of the science of vital statistics, whose generalizations are now accepted maxims in dealing with the health problems of dense populations, should, after a life of drudgery at the desk, sink under the weight of years, leaving those nearest and dearest to him dependent on others, while the State and the world continue to profit enormously by his unrequited services. But it also acknowledges that distinctions conferred by the State are not the goal towards which our noblest minds strive, and that the love of truth and of humanity form incentives enough for the highest work. The article concludes with an allusion to the Bower and Keates' case, and an expression of opinion that under the Scottish system such an injustice could hardly have been perpetrated. Seldom have we met with a leader in a lay paper so thoroughly sympathetic to the profession, and so generally right-thinking.

THE January meeting of Convocation of the University of London will be held on Tuesday next, at 5 o'clock. There is nothing of special interest to the Medical Faculty on the agenda.

MR. HOLLOWAY is dead, and the papers have been full of moralizings on his career. There is doubtless a lesson to be drawn from the life of every successful man, and the one who wins his success by playing on the foolishness and credulity of his kind is an object especially worthy of meditation. His prosperity leads one to realize the low average of human intelligence, and tends to check over-weening conceit in one's own powers, just as the sight of a successful conjuror depresses one's estimate of one's own acumen. It is related that Gargantua was taken by his sagacious tutor "to see jugglers, tumblers, mountebanks, and quacksalvers, to consider their cunning, their shifts, their summersaults and smooth tongues, especially those of Chauny, in Picardy, who are naturally great praters, and brave gibers of fibs, in matters of green apes." Mr. Holloway, we are informed by a correspondent, was a great

hypochondriac. In his earlier days, when he lived over his pill-shop in the Strand, he often consulted Mr. Digby, a well-known practitioner of the neighbourhood, whose remedies, we are told, he invariably preferred to his own.

Mr. Holloway will be chiefly remembered as the man who first conceived the possibilities of fortune which lie in the modern development of the advertising system. It needed a certain kind of genius to see that; and he has shown the same grandeur of conception in the two remarkable institutions to which he has devoted such a large part of his fortune. But the moral of his life is not a wholesome one. It is sufficient to tempt unstable minds astray. It is not pleasant or encouraging to the medical practitioner, who, after a life of incessant but honourable labour, barely manages to provide for his family, to see a seller of quack medicines ranking among the richest millionaires in the world. Holloway's success and that of his imitators has not had a good effect on the medical profession, and if there is no open advertising by medical men, there is more than enough of advertising under the rose. There are men amongst us—not greatly respected, it is true—who manage to advertise themselves in almost as many newspapers as Holloway, and without paying a sou; but, happily, we have not heard that they have secured any share of his marvellous success.

The Epidemiological Society will, on Wednesday next, have what by a strange confusion of language it is customary in medical journalism to call a "field-night." Surgeon-General Hunter is to read a paper on the origin of the Cholera Epidemic in Egypt, which will, no doubt, excite much discussion. It is important that the subject should be thoroughly debated, as the future action of our Government in Egypt, at any rate in a sanitary direction, will depend on whether Surgeon-General Hunter is considered to have proved his case or not. If his view is accepted, that cholera has been endemic in Egypt for years, the Government, we believe, are prepared to take energetic steps to improve the sanitary condition of the country, in spite of all opposition. But anything short of conclusive demonstration would doubtless lessen their feelings of responsibility in the matter. The meeting of the Epidemiological Society will henceforward be held on the *second* Wednesday in each month, and in Chandos-street instead of at University College.

When the time comes—if it ever does come—for the Sanitarian to begin work upon the Augean stable of Egypt, one of the first things to which he will have to direct his attention will be the domestic cesspool. It is customary, even in the largest houses in the chief centres of population, for this necessary receptacle to be placed in the very centre of the dwelling-room, where the males of the family live together with their retinue of camels, goats, and donkeys. Once a day, the slab which covers, if it does not conceal, the cesspool, is rolled aside, the accumulated excrement of the twenty-four hours, human and animal, is thrown in, and the slab rolled back again. From time to time the cavity is emptied, and its contents are heaped up in a convenient spot to dry, and serve for future fuel. The Englishman holds up his hands in horror at the existence of such a state of things; but let him compare it for a moment with what Dr. Barry found at North Shields, when he went last summer to report upon the sanitary state of that locality.

North Shields, it may be stated for the benefit of those who are not familiar with the geography of those parts, is hard by Tynemouth, the favourite watering-place and health-resort of the dwellers in the populous Newcastle district. The lower part of the former town was built at a time when all traffic was carried on by means of packhorses, and therefore the streets which run from end to end are exceedingly narrow. Lanes and courts branch off from them at right angles, to be terminated on one side by the river Tyne, on the other by the cliffs. In these side streets the entire houses are divided off into tenements, frequently inhabited by the poorest and most degraded classes. The houses are often situated round close courts, and in many cases are built back to back, so that through ventilation is impossible. But even if it could be ensured, the advantage, according to Dr. Barry, would be doubtful. In many houses there is no privy accommodation, and all the refuse of every kind is thrown into the centre of the court, so that the atmosphere outside the dwellings is more noisome than that within. Dr. Barry was informed that this absence of privy accommodation had been known in some instances to lead to the deposition of all filth under the flooring, or in the cupboards of the houses. It is not surprising to hear that these sanitary conditions have markedly influenced the mortality in North Shields, the Medical Officer of Health reporting in his summary for 1882, that the death-rate for the township had reached as high a figure as 30·4 per 1,000 living. Dr. Barry admits that the Sanitary Authority of the district have devoted considerable attention to their duties. They have enforced the supply of wholesome water, have attended to sewerage and drainage, undertaken the removal of refuse, and provided an ample supply of sea-water for public and private use. But he says, and probably with justice, that much yet remains to be done, in order to deal with the various defective conditions above noted, which do not indeed appear to be very greatly superior to those which prevail in cholera-smitten Egypt. Surely sanitation, like Charity, should begin at home.

In America, coca is now prescribed with tobacco for "chewers." A combination "plug" of coca and tobacco is extensively advertised in the St. Louis papers, and certificates from prominent physicians are quoted to the effect that tobacco *plus* coca is less injurious to the system than is tobacco alone.

A Correspondent, signing himself "M.R.C.P.," has sent us the following extract from an American journal, which bears evident signs of having been written by a man thoroughly conversant with his subject:—

"The social position of the whole medical profession in England is much lower than it ought to be. The distinc-

tions lavished on other professions are very rarely conferred on medical men; but the profession has itself to thank to a great extent for this difference. The amount of gratuitous work done by the profession in no way raises it in the public esteem. It is well known that it is not performed from motives of charity, but for the position which is gained by being attached to a hospital staff, and the hopes of a good practice ultimately accruing therefrom. This custom of gratuitous services to the hospitals has grown on the profession, and many a young physician and surgeon now is exhausting himself in mind and body by attending gratuitously at hospitals patients whose incomes are in some cases much greater than his own. This injustice the public, as represented by the people who support the hospitals, in no wise wish; they would be quite willing that the first charge on the incomes of the hospitals should be to adequately remunerate the medical men who attend upon the sick. But any reform in this direction must emanate from the heads of the profession. No profession can be expected to rise in social position when kept in a state of penury; and this poverty-stricken state of the medical profession, as it is in England, is a great deal due to the action of those who hold the highest position in it. They preach to the younger members, who are getting nothing from their hospital appointments, to keep up the dignity of the profession by never taking from a private patient less than their guinea or two guinea fee, when the same patient can see men of the greatest reputation and obtain their advice for the same amount. The senior men with high reputations ought never to take less than five or ten guineas; there would then be a chance of the junior members of the profession sometimes obtaining a patient. One of the by-laws of the Royal College of Physicians of London is, that 'No fellow or member of the college shall officiously, or under colour of a benevolent purpose, offer medical aid to, or prescribe for, any patient whom he knows to be under the care of another legally qualified medical practitioner.' The spirit of this by-law is being constantly broken, for medical aid and advice is often given by the best physicians and surgeons in London to patients who they think cannot pay their fee, but could easily pay the fee of a general practitioner; and while acting as they think benevolently to the one they are depriving the other of his due, and thereby lowering the status of the profession. In the out-patient departments of our hospitals this injustice is carried to an extreme, and the rank and file of our profession have ample cause for the bitter complaints they level at the London consultants. The elevation of the profession in the social scale is entirely in the hands of those who are called 'the heads of the profession,' and any inferiority under which it may suffer is entirely due to their action, and for it they may be considered responsible. Large incomes in England are made by about ten or a dozen of the leading medical men, and these are not so large as they ought to be. The rest of the profession is in a miserably under-paid condition."

"M. R. C. P." suggests, as a remedy for this state of things, an entire revision of the fees chargeable by consultants, and he recommends the following table as likely, if adopted, to meet the difficulty:—

Table of Fees for Consultants.

	Consultation from home.	Consultation in own rooms.	If in regular attendance (each visit.)	Operations.	Midwifery.
	£ s.	£ s.	£ s.	£ s.	£ s.
No. 1.—Titled Physicians and Surgeons	10 10	5 5	3 3	52 10	52 10
No. 2.—Senior Physicians and Surgeons of Hospital Staffs	5 5	3 3	2 2	25 5	26 5
No. 3.—Physicians and Surgeons of established reputation	3 3	2 2	1 1	15 15	15 15
No. 4.—Junior Physicians and Surgeons	2 2	1 1	1 1	10 10	10 10

All the above fees chargeable in London; or in the town where the consultant may be resident.

Additional fees for distance beyond four miles from Charing Cross, or from the centre of any provincial town.

No. 1.—A guinea a mile (*e.g.*, 60 miles, 60 guineas).

No. 2.—Two-thirds of the distance in miles in guineas (*e.g.*, 60 miles, 40 guineas).

No. 3.—Every three miles, a guinea (*e.g.*, 60 miles, 20 guineas).

No. 4.—Every four miles, a guinea (*e.g.*, 60 miles, 15 guineas).

"M. R. C. P." thinks, that "when once the consultants appreciate their position, and the public have learnt to estimate their assistance at something much nearer its proper value than at present, we may hope to improve the social position of the profession, and to raise in many respects the incomes of the general practitioners; and especially to demand from the State that those medical officers who treat the sick poor in the parishes throughout the country, shall be fairly remunerated."

Our own feeling in this matter, which will be admitted to be one of the first importance, is that the whole difficulty is due to the overcrowded state of the consulting branches of the profession, and the remedy is to be sought in a gradual increase in the dignity and attractiveness of the general practitioner's life. The fees charged by senior consultants might, no doubt, be raised with advantage, and we are glad to hear that one titled practitioner at least is now charging three guineas for every first consultation at his own house. But it must be remembered that each rise in fees would tempt more and more young men to become consultants, and there would soon be as great a struggle for patients as there is at present. In spite of the multiplication of hospitals, there has never before been anything approaching the competition that there is now for hospital appointments, and the scramble for insurance vacancies is little short of ludicrous. What the consulting branches want, to restore to them a healthy tone, is a little depletion, or rather a good deal of depletion. If fifty of the youngest consultants would make up their minds to sacrifice their dignity, learn a little midwifery, and settle down as general practitioners in the best neighbourhoods in London and the chief watering-places, they would find themselves in ten years making incomes that not more than half a dozen of them will ever probably make under existing circumstances, and those they left behind would see some semblance of hope beckoning to them in the future. Science would lose, no doubt, by it, but the general sum of happiness would gain.

The new number of the *Medical Directory*, which has just been issued, shows a quite unusual increase in the members of the profession: there are nearly eleven hundred more names in the present volume than in last year's Directory; the reason for this exceptional recruitment evidently being that large numbers have made haste to qualify themselves before the threatened legislation makes qualification more difficult. The total number of practitioners in the new Directory

is 25,038, divided as follows :—London List, 4,417 ; Provincial List, 11,775 ; List for Scotland, 2,206 ; List for Ireland, 2,430 ; Registered Practitioners Resident Abroad, 1,717 ; Army, Navy, Indian Medical Service and Mercantile Marine, 2,493.

The Navy Medical Blue-Book for 1882 has just been published—too late, however, to allow us to notice it at length. The sick-list returns, the invaliding-rate, and the death-rate from disease, all show a slight increase on the figures for 1881. Some of this increase is accounted for by the sickness and casualties consequent on the Egyptian War. But in addition to this, there was on the Home Station more enteric fever than usual ; on the Mediterranean Station there was a serious epidemic of remittent fever, caused by local conditions at Malta ; at Port Royal, Jamaica, there was an outbreak of yellow fever ; and in the East there was also an unusual amount of sickness from febrile affections. Still a death-rate from disease of only 6·87 per 1,000 cannot be regarded as very unsatisfactory.

At its recent annual meeting, the Paris Academy of Medicine announced the names of the successful competitors for its prizes in 1882 :—1. The Academy Prize for the question "Generalised Arterial Atheroma, and its Influence on the Nutrition of Organs" was adjudged to Dr. Hippolyte Martin, Chief of the Clinical Laboratory of the Diseases of Children. 2. The Portal Prize, "The Lymphatic System from a Pathological Point of View," to Dr. A. Poulet, *Agrégé* Professor at the Val-de-Grâce. 3. The Civrieux Prize, "The Causes of Locomotor Ataxy," to Dr. Landouzy, *Agrégé* Professor of the Faculty of Medicine, and Dr. Ballet, Chef de Clinique of the Faculty. 4. The Capuron Prize, "The Lochia in their Normal and Pathological Conditions," to Dr. Eustache, of Lille. 5. The Barbier Prize was not awarded, but an "encouragement" was given to Dr. Willems, of Hasselt (Belgium), for his works on the "Inoculation of Pleuropneumonia." 6. The Godard Prize was divided between Dr. Leloir, for his "Clinical and Anatomo-pathological Researches on Cutaneous Affections of Nervous Origin," and Profs. Feltz and Ritter, of Nancy, for their work on "Experimental Uræmia." Honourable Mention was also awarded to Dr. Borius for his work on the "Diseases of Senegal," and to Dr. Ballet for his "Clinical and Anatomical Researches." 7. The Itard Prize, for the best work on Practical Medicine or Applied Therapeutics, which had been published at least two years previously, was divided between Dr. A. Poulet, for his "Treatise on Foreign Bodies in Surgery," Dr. Sanné for his "Traité de la Diphthérie," and Dr. Latteux for his "Manual of Microscopical Technics." 8. The Falret Prize, "Vertigo with Delirium," to Dr. Garnier, Inspector of Lunatic Asylums. 9. The St. Paul Prize, for a sovereign and efficacious Remedy for Diphtheria, was not adjudged, but an "encouragement" was awarded to Dr. Leloir for his "Contribution to the Study of the Structure and Development of Pseudo-membranous Productions on the Membranes and Skin." For several other prizes there were no candidates.

The announcement of the prizes in the *Bulletin* of December 18 is preceded by an interesting report by the Secretary to the Academy, Dr. Proust, recapitulating the views which have guided the adjudicators in their reports upon the essays submitted to their notice ; but for this we have not space. The prize-questions for the year 1884 are as follows :—The Academy Prize of 1,000 frs., "The presence of Bacilli in the Sputa, and their Semeiological Value." 2. The Portal Prize of 1,000 frs., "The Pathological Anatomy of Cancers." 3. The Civrieux Prize of 1,500 frs., "Sclerosis in Dis-Pseminated Patches." 4. The Capuron Prize of 1,500 frs., "Traumatism and Pregnancy—their Reciprocal Influences." 5. The Barbier Prize, of many thousand francs, is offered for the discovery of a complete cure of diseases usually regarded as incurable, as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, &c. ; but awaiting this, "encouragements" are to be given from the interest of the money (3,000 frs. in 1884) to those who, without attaining this aim, have approached it most nearly. 6. The Godard Prize of 1,500 frs., for the best work on Internal Pathology. 7. The Desportes Prize of 1,500 frs., for the best work on Practical Medical Therapeutics. 8. The Buignet Prize of 1,500 frs. to the author of the best work, printed or in MS., on the application of Physics or Chemistry to the Medical Sciences. 9. The Daudet Prize of 2,000 frs., "Lymphadenoma." 10. The Vernois Prize of 800 frs. is offered for the best work on Hygiene. 11. The Lefevre prize of 2,500 frs. will be given to the author of the best work on Melancholia. 12. The Falret prize of 1,000 frs. "Diathetic Insanity." 13. The Orfila Prize of 6,000 frs., "Veratrine, Sabadilline, Black Hellebore, and White Veratrum." 14. The Prize of the Committee on Infantile Hygiene, of 1,500 frs., for "The Etiology and Prophylaxis of Scrofula in Early Infancy." 15. The St. Lager Prize of 1,500 frs. is to be awarded for the experimental production of a tumour of the thyroid by the administration of substances extracted from the waters or soils where goitre is endemic. 16. The St. Paul Prize of 25,000 frs. for the discovery of a certain cure for diphtheria—the interest of the prize-money being employed in remunerating those whose researches on the subject are meanwhile approved of. The essays and works competing for these prizes, written in French or Latin, must be delivered at the Academy before the 1st July, 1884. None of these will be returned ; but copies may be made at the expense of their authors at the Academy.

M. Alphonse Guérin has been elected President of the Academy for 1884, and Dr. Fauvel Vice-President.

Yet another advance in abdominal surgery. In the second number of the *Bristol Medico-Chirurgical Journal*, Mr. Nelson Dobson suggests the propriety of opening the abdomen in cases of perforating ulcer of the stomach. The case which brought to his mind the desirability of seriously considering the propriety of this step, was that of a young woman (aged 27), who after a rather laborious day, had been seized with faintness and pain in the abdomen. When seen after the lapse of three hours there was collapse, with pain at

the epigastrium and general abdominal tenderness. Death with symptoms of peritonitis took place in less than twenty-four hours. At the necropsy a hole was found in the anterior wall of the stomach, a situation, as Mr. Dodson points out, readily accessible to an operator. We have so recently, in one of our clinical papers, insisted upon the importance of recognising the diagnostic symptoms of gastric ulcer, that we need not reiterate them. A careful attention to the history of the case would, in most instances, enable a correct diagnosis to be made. Having decided to operate, Mr. Dobson points out that three courses are open to the surgeon: he may content himself with sponging out the peritonæal cavity, and trust to time to heal the ulcer whilst he feeds the patient by means of enemata; or he may bring the edges of the ulcer together with sutures, with or without paring them; or he may stitch the stomach to the abdominal wall and establish a gastric fistula. The last proposal does not commend itself to us, unless perhaps for exceptional cases; nor do we think that to pare the edges of the ulcer would be a prudent proceeding, when we recollect that it might be followed by bleeding into the stomach, which, even if recognised in time, might be difficult to control. On the whole we would prefer to trust to time, and to keeping the patient's strength up by nutrient enemata. We consider Mr. Dobson's idea quite within the bounds of practical surgery, and hope some day to be able by its means to record that a life or lives have been saved.

On Saturday last Earl Stanhope presided at the tenth annual meeting, at Sevenoaks, of the Holmesdale Cottage Hospital. During the past year the hospital has been enlarged, and the committee were able to present a very satisfactory report. To the vote of thanks proposed to the consulting and ordinary staff, Mr. LeGros Clark, the honorary consulting surgeon, replied.

The good Catholics of Paris are advised by their Archbishop to "boycott" the hospitals. The priests are no longer allowed to reside in them, or to visit them at all, unless sent for, and though the Archbishop has provided a special staff of priests for hospital work, the Government will not pay them. He therefore beseeches the faithful not to send the sick in their charge to the hospitals, but to organize a system whereby they can be treated at home. The feeling on this subject must, of course, be very different in a Catholic country from that which prevails in a Protestant one, where less weight is attached to death-bed ministrations; but, making every allowance, the action of the Archbishop cannot be considered anything but childish and ill-advised. A system of efficient out-door treatment is not organized in a day, even with the willing help of the medical profession, and meanwhile many hundreds of sick poor are to be robbed of the advantage of skilled medical aid, because the small percentage of them who die may find some difficulty in securing the last consolations of religion. That is, indeed, making the many suffer for the welfare of the few.

Dr. McCausland, in a communication to the *Philadelphia Medical Reporter* (Oct. 27), furnishes an account of some observations which he and another medical man have made upon a man, aged 28, from one hour before his execution by hanging up to the moment of death. He met his fate in a calm and collected manner, although he seemed to be in a kind of dazed condition, caused no doubt by his mental suffering. The muscular system was tremulous and somewhat relaxed; pupils slightly dilated; efforts at swallowing repeated twice a minute; respiration 28, inspiration being quick and spasmodic and expiration longer, and pulse 112, apparently full and bounding. A tracing was taken with the sphygmograph, which, while it showed the effects of the hot whisky punch which he was taking, in other respects was identical with the tracing of a man suffering from shock. After the trap was sprung his pulse was taken every quarter of a minute. The third quarter of the first minute it was twelve beats per fifteen seconds. It increased rapidly until the last quarter of the fifth minute, when it was thirty-eight per fifteen seconds. It now rapidly declined, or rather became indistinct until the end of the seventh minute, when it could no longer be discerned. By means of a stethoscope the heart's action was noted at the eleventh minute 120 strokes—weak and irregular—and rapidly merging into an indistinct fluttering sound, which was maintained until the end of the fourteenth minute. At the end of the fifteenth, life was pronounced extinct. There was complete dislocation of the cervical vertebræ.

The Registrar-General is an adept in the expression of sarcasm by means of italics. In his last weekly report he tells us, that in the outer ring of London there were registered during the week six cases of "fever." In the Staines sub-districts again two cases of "fever" were registered. "Pray, good general practitioners, do be more accurate," is what those dashed-in italics are meant to convey. Now accuracy in diagnosis is a good lesson to teach, and for preventive purposes, the registration of a death as due to "fever," is practically useless. But there is something to be said on the other side, and from a scientific point of view it is better for a practitioner to admit that he is unable to diagnose a case, than to assume a virtue that he does not possess for the sake of the Registrar-General. Indefiniteness in statement is sometimes a duty, and medical men are as a rule, we believe, much more likely to err in certifying to more than they know, than in candidly recording less than they know.

Except for an epidemic of falls—falls from ladders, from stairs, from chairs, from boys' backs, from scaffolds, and from other undefined elevations, most of them due probably as much to the attraction of the bottle as to that of the earth—the Christmas week of last year was a comparatively healthy one. The death-rate sank below 20—from 21·2 in the previous week to 19·8—but a little of this decline is probably to be accounted for by the reluctance to register deaths in a week of festivity, unless absolutely necessary. As, however, the number of deaths was nearly 500 below the average of the corresponding week in the past ten years, and as

one Christmas is not likely to interfere more with registration than another, it may be concluded that the week was almost as healthy as the death-rate shows. Measles and scarlet fever were again the most fatal of the zymotic diseases, and show over a hundred deaths between them; but whooping-cough, diphtheria, typhoid, and diarrhœa were all active, and accounted together for close upon another hundred of deaths. The quarter just ended, which on the whole has been remarkable for fine weather, was healthier than the corresponding period of the three previous years. The weather of its last week was, however, atrocious. Not an instant of sunshine was registered at Greenwich during the whole seven days, and Paris has not, we hear, been any luckier.

Dr. Domett Stone has recently contributed to *The Times* a letter on Ship Surgeons, in which he takes to task the Marine Department of the Board of Trade, for the *laissez-aller* it exhibits in everything connected with the mercantile marine of this great country, more especially for the apathy it evinces in the appointment of ship surgeons. "It is a notorious fact," Dr. Domett Stone writes, "as reprehensible as it is true—that thousands of emigrants leave these shores for distant parts under the impression (and, in some cases, with the positive guarantee) that, as advertised, 'an experienced surgeon accompanies the vessel,' and therefore there need be no unnecessary alarm in the event of accident or illness during the voyage." The contrary he points out is frequently the case, hence the high mortality of passengers at sea. To prevent the possibility of men unqualified in any respect, and the "ne'er-do-weels" and black sheep of the profession, obtaining such appointments, Dr. Stone suggests that the superintendents of mercantile marine who make a point of demanding from the master of any foreign-going ship his certificate of qualification, as also those of the first and second officers and engineers (if any), should also ascertain the qualification of any medical practitioner seeking employment in the service. It appears that the owners of vessels employed in the North Sea whale fishery, admit the dangerous nature of the traffic in which their ships are engaged, and therefore engage a *surgeon* (?), but it is notorious that for years past mere youths have been shipped to attend upon the crew in the event of accident to life or limb, and it is stated that two vessels sailed last year from Dundee, for the whale fishery, the ages of the *surgeons* (?) being respectively 17 and 20! That so few able men should care to become ship surgeons arises from the fact that the pay is scandalously low, less than the wages paid to the steward, and the accommodation provided scarcely fit for a dog kennel. It will be seen that, in pointing out the bane, Dr. Domett Stone has not omitted to prescribe the antidote, and he concludes his letter, which is full of sound argument and apt quotations, by strongly urging ship surgeons to at once enrol themselves into a Mercantile Marine Medical Service, and to lay their grievances before Parliament.

At the meeting of the Pathological Society this (Friday) evening, in addition to the business already announced, an address will be delivered by the President, Mr. J. W. Hulke, F.R.S.

THE MEDICAL TIMES.

"The work was commenced with a firm determination to unmask quackery, and, by upholding the honour and dignity of medicine, advance at once the wellbeing of the profession and the great interests of humanity. In this attempt we have struck at the root of the mammoth evils which, in the shape of monopoly and misgovernment, choke and almost destroy the profession, defeating the fulfilment of its brighter destiny by removing the stimulus to a high and noble exertion." These are almost the first lines in the preface to the first volume of this journal, published nearly forty-four years ago; and though other times have brought in other manners, and a cry that was not ill-suited for a new-born enterprise may well sound too youthful and ardent in the mouth of one past middle age, we are not sure that the *Medical Times* of the present day might not do worse than adopt the spirit of the policy thus expressed. Every one, at any rate, who has looked into the early volumes of this journal will admit that its policy was carried out with sufficient energy and outspokenness. The first number appeared on September 28, 1839, and was a closely-printed sheet of eight pages, soon increased to twelve. By July, 1850, when a New Series was commenced, it had increased to twenty-eight pages, and its character had grown considerably in solidity. Many of the best lectures of the time were published in its columns, Sir William Jenner's epoch-making Course on the Continued Fevers appearing in the first volume of the New Series. In January, 1852, the *Medical Times* coalesced with the *Medical Gazette*, a long-established and highly-esteemed periodical, published by Messrs. Longmans, and the combined journal then took the name under which it has so long been honourably known. Soon after the coalition, Mr. (now Sir) Spencer Wells assumed the editorship; and, except for a short period (during which he was in the East, at the time of the Crimean War), held it until press of work compelled him to retire in 1862. He was succeeded by Dr. Druitt, who in turn, after a most successful and honourable period of editorship, was, in 1870, forced by ill-health to withdraw from his post. Under these two distinguished leaders the journal gradually assumed a still more serious and scientific tone, and represented more and more the spirit of the most ardent workers and the most philosophic minds in the profession. To enumerate the authors whose lectures have originally appeared in these pages, and the writers who have at one time or another been connected with the journal, would be to give a list of many of the best known and most highly honoured names in the profession. The aims impressed upon the journal by Sir Spencer Wells and Dr. Druitt have been consistently followed by their successors; and, looking back on the last twelve years, we may say, without arrogance or exaggeration, that no medical journal in any country has been more thoroughly respected for its single-hearted devotion to the advancement of science and the welfare of the medical profession.

The above brief summary of the past history of the *Medical Times* will serve appropriately to introduce a rough sketch of the lines on which the journal will be

conducted in the future. The first aim will be to make it—what it has been in the past—essentially a clinical journal. The one permanent and absorbing interest of the average medical reader is his interest in his profession as such. Political and ethical topics ever and anon come to the front, and it is the business of the medical journalist to inform himself and his readers about them in all their bearings. It is his duty to hear all that is being said and thought respecting them by the best men in the profession; faithfully to form his own opinion, and to speak it out boldly, independently, and so far as he can without individual or class bias. On such matters we shall always endeavour to express the higher and more advanced thought of the profession, in the hope that the after progress of events will give us no cause to regret the hastiness or be ashamed of the narrowness of our judgments. But, after all, the laws regulating the relations of the members of the profession to the State and to each other, which fall broadly under the heads of politics and ethics, are but a means to an end. Their final cause is to make the daily work of the practitioner efficient, honourable, and pleasant; and, bearing this constantly in mind, it will be our effort to steer clear of the common fault of politicians and ethicists—medical or otherwise—who are apt to grow so absorbed in the object of their study, that they come to confound the means with the end, and to think that such achievements as the passing of a medical Act, the social elevation of the profession, or the formulation of a strict code of ethics are the main goal of existence, and the objects of as absorbing a passion to their brother-practitioners as to themselves. The one common interest of the medical profession is, we repeat, a clinical interest, and the highest and worthiest function of a medical journal is to stimulate and to satisfy it in all its numerous phases. The lectures, original articles, and cases which we present to the reader in this number are an earnest of the importance which we attach to this part of our *rôle*. The clinical papers—specially written by physicians and surgeons of repute—(the third of which appears to-day) are a further indication of our anxiety to furnish our readers with clinical matter worthy of thoughtful attention. Their aim is to draw on the wide experience and observation of hospital physicians and surgeons, for the benefit chiefly of those who have not their extended opportunities of clinical research. But their value will not be limited to the latter class; for, apart from the fact that honest clinical observation has its pass-key to every brain, a thoughtful mind dealing with the commonest of subjects will often show it in a fresh light, even to those whose range of experience is not inferior to his own. We shall not apologise, therefore, if some of the papers in the series deal with subjects on which some may think that the last word has been said. The Reports of Societies, which form another branch of the clinical work of medical journalism, will make their appearance promptly, and in as brief terms as is consistent with faithful rendering; while in the Abstracts and Extracts from our contemporaries in this and other countries, it will be our aim to supply the reader with a careful epitome of the progress of medical science in all its branches.

The *Medical Times* is comparatively a small journal, and that we claim as an advantage. It renders it a necessity to select only the best original articles and cases that are offered to us, it makes padding superfluous, and it is a constant reminder to the editorial staff to say all they have to say as tersely as possible. The main cause of unreadableness in a journal is not obscurity so much as diffuseness; and the small number of our pages, compared with the bulkiness of some of our contemporaries, will, we hope, result in the *Medical Times* being, as the saying is, "readable from cover to cover." The successive editors of this journal have always attached much importance to literary style, and we hope that the past reputation for restrained and cultured writing will be fully maintained. It is true, again, that style, as such, is only a means to an end, and if one has nothing to say, it is of little credit to him to have said that nothing in graceful language; but the end is often lost through want of sufficient attention to the means, and many writers, even in our profession, have failed to gain for their researches the attention they deserved, simply from their faulty method of presenting them to their readers. In these swift days men have not the time to linger over books, or find a pleasure in unravelling the mazes of obscure sentences. They have been taught to expect from those who cater for their literary instruction or entertainment, a lucid, fresh, and readable style; and though easy reading may be unconscionably hard writing, we promise that no efforts of ours shall be spared to make the *Medical Times* the most thoughtful, most suggestive, and most readable of English medical journals. As to honesty, faithfulness, and independence, we shall say nothing, except that we think them the all-important and essential attributes of a journal written by and for the members of an honourable profession.

OBSERVATION AND EXPERIMENT IN MEDICINE.

It is the proper boast of the present days of medicine that its practice is becoming more and more scientific, or, in other words, increasingly dependent on a rational inquiry into the causes of disease. No arguments are necessary now to prove the advantages of this method to the study of the functions of the human body, and the solid results which have been thus already attained; and it is obvious that the hope that we may entertain of arriving at a truer pathology and the best lines of treatment is largely proportionate to the successful pursuit of the causes of derangements of health. Fanciful superstition, and more or less ingenious guesswork raised to the dignity of a dogma, have nearly played out their part in the domain of medical investigation, or, if still more prominent than is willingly admitted, are in name at least discredited; and the methods of rigid logic based on observation and experiment are now in the ascendant, bidding fair in time to be genuinely, thoroughly, and thoughtfully followed. When this desired consummation shall have come to pass, then, and then alone, will the death-blow have been struck, not only at the fascinations of successful quackery, but also at the premature conclusions of

rash, short-sighted, and over-eager, though, up to their lights, well-meaning adherents of what they deem to be scientific method. The fallacies and pit-falls, however, which are neither few nor far between, upon the path of modern medicine, have perhaps been insufficiently present to the minds of many workers, and it is the existence and nature of some of these that we shall endeavour to point out in these remarks.

A comparison between scientific method, or the search after causes, and the demonstrated results of sufficient inquiry, or *exact science*, is at the bottom of many faulty views as to the nature of medical research, and of much incomplete and erroneous teaching and writing. It is often forgotten that a science becomes exact in proportion to the simplicity of the subject-matter with which it deals. The more obvious the fundamental facts of which we seek the causes, and the less complex their nature, so much the sooner do we arrive at accurate generalizations from them, and the more readily can we utilize them for reasonable practice. A great difference here shows itself between some of the sciences on which the practice of medicine ultimately rests, and the mass of knowledge called "medical science," which is the proper and proximate substratum of the medical art. The aim of all scientific research is to arrive at demonstration and the possibility of true prediction as to what may happen in given circumstances; and this can only be attained by a due study and questioning of nature by observation first, and, when possible, by experiment afterwards. Observation must always come first in every department of knowledge, but in order to try our conclusions, and to keep hold of that which is probable, it is indispensable to test our results by something more than merely collecting facts *ad infinitum*, unaided by a theory.

This testing, which is a necessary factor in all exact knowledge, is performed, generally speaking, by the further employment of the method of observation, rationally guided by a suggestive hypothesis, or by the application of the method of what is more properly called experimentation, or, in other words, by in some way altering, for the purpose of our inquiry, the conditions of the material we are studying. When we know enough of any one subject to apply the method of experiment aright, we arrive at demonstration in the most direct and satisfactory manner, and by what is known as an *experimentum crucis* we may attain to a finally complete answer to our questioning. In physics and in chemistry, so obviously ancillary and introductory to the study of medicine, this stage has been to a great extent reached; and by their use of the method of direct experiment these subjects may claim to be considered as exact sciences. Physiology, too, or at least some chapters of it, is now to be regarded as largely experimental, having arrived at that point where much is to be looked for from the application of the experimental method in its strictest sense. Much, however, of the still untilled field of Physiology, especially the study of purely vital action in the human subject, must perforce be worked, on account of both the confessed complexity and the peculiar exigencies of its material, by the method of observation alone, though this very observation, to be fruitful, must be carried out by the help of rational hypothesis; with, indeed, the spirit of experiment itself, when actual experiment, possible up to a certain limit, can no longer be employed.

Coming lastly to Human Pathology, or the study of diseased conditions, that subsection of Physiology which immediately underlies the rational practice of medicine, we shall find from the very nature of its subject-matter and the greatness of its undiscovered area, that we must still be largely indebted to the method of observation of disease during life, and of its possible sources and results in the body after death, for increasing knowledge and better explanation of its facts and problems. Observation, both clinical and anatomical, is daily adding to our knowledge in this department, and its conquests are great enough to bid us in no way despair of the future. A certain scope for experiment proper is apparently pointed out to us by the hypothesis now so largely occupying the minds of biologists and pathologists alike, of the germ-origin of many diseases. To settle this question satisfactorily experiments on living bodies must be carefully conducted. Such inquiries as these obviously present great, though perhaps not insuperable, difficulties, and they are certainly of the greatest importance. Apart, however, from this question of disease-germs, the conditions of pathological research at large do not lend themselves as yet to strict experimental methods.

Reviewing, then, the sciences which go to make up the knowledge on which the medical art is based, we cannot but acknowledge that the part played by pure experiment, and the results to be hoped therefrom, seem to be in decreasing ratio according to the increasing complexity of the material which we have to study, and that in consequence observation, suggested and guided by hypothesis, comes more prominently forward as the method by which we must at present endeavour to advance. For not only would direct experiment here in any circumstances be ever to a great extent precluded by the very conditions of the human subject-matter, but our knowledge of the natural processes involved is not sufficiently great for us to expect the best or any light from altering the natural conditions, or from *bonâ fide* experiment; and still less to justify our immediate search for an "experimentum crucis." For experiments in this field, indeed, we must greatly depend on those made by Nature herself in the shape of disease.

But though it may thus appear that medical knowledge, taken as a whole, is far from being exact, and only to some extent demonstrable by experiment and permissive of prediction, it by no means follows that its methods are un-scientific, or to be regarded as worthless and unfruitful because they are neither final nor fully satisfactory. It is unfortunately the case that in the very sphere of knowledge which most nearly concerns us all, the attainment to certainty seems hardest and farthest off. And perhaps from an unwillingness to acknowledge this unwelcome truth, many are found in the present day to be following scientific Will-o'-the-wisps, and dazzled by the newest lights, proclaiming loudly that experiment pure and simple is the only path of advance; observation alone taking us round in a perpetual circle. Such an opinion as this is the outcome of an imperfect appreciation of

the fact that a true method must be adapted to its material, and of an insufficient and erroneous notion of the function and possibilities of rational observation; and it is forgotten by those who thus contend, that the spirit which informs scientific observation and experiment is one and the same. There is, then, an important function for observation in the advancement of the scientific knowledge of disease; a function, too, which has already been so productively discharged in the past. The knowledge of our material is not sufficiently great to justify the conclusion that this method is useless or outworn, or that the time has arrived when, even from the scientific point of view alone, we may regard medicine in a purely experimental light. With no disparagement, therefore, it need scarcely be said, to the value of experiment properly devised and employed, with adequate knowledge of the conditions to be elucidated, we may advantageously glance at the results on medicine of observation in the recent past, and the hopes we may entertain from it for the future. It is but comparatively lately that the enlightened observation of men whom we delight to honour has put us in possession of invaluable knowledge concerning many diseases which before lay buried among a mass of confused symptoms. Many of the famous observers of modern days, ably following the method of Hippocrates, have illustrated in their own persons the saying of their great forerunner, that "he is the best Physician who can make the best Prognosis." A correct prognosis is at once the result of a knowledge of the natural history of disease, and indispensable to any rational line of treatment. To the careful observers of the school of medicine at Guy's Hospital alone, our debt is very large. To Bright, and Addison, and Hodgkin, we owe definite knowledge of maladies, without which much of our practice now would be indeed chaotic, and the work of several of their happily still surviving successors has been of great moment, as a perusal of the Hospital Reports will amply show. From the careful and unprejudiced observations of such men as Gull and Wilks, as well as of others in various quarters, much light has been thrown on different forms of paralysis both of cerebral and spinal origin, and on the previously little known manifestations of visceral syphilis. In our own day, too, clinical and pathological observation has almost revolutionized the study and treatment of fevers, the greatest triumph being, perhaps, the individualization in nosology of Enteric Fever, with our consequently improved power of fore-casting the result of this disease, and of both partially arresting its spread and favourably guiding its course. Nor in this rapid glance at the conquests of observation in medicine must we omit to notice the newer researches of the French and German schools, and the flood of light thrown on many nervous diseases by the work of such men as Erb, Charcot, and others. Before our eyes the various subdivisions of the spinal cord seem to be assuming a fresh clinical importance and interest from an able study of symptoms and post-mortem appearances by a host of modern observers, and we can scarcely guess at present how much will be gained for prognosis and treatment when further work and thought shall clear up the causation of the affections of this class which have so recently been made known to us. And if any further illustration be necessary of the value and acknowledged necessity of increased observation for the advancement of medicine, we may refer lastly, though not as least in importance, to the hopeful work of the Collective Investigation Committee of the British Medical Association, inaugurated as it has been by so many leading men, and so largely taken up. Not only in the investigation of little known diseases, but also in that of those long since acknowledged and described, is the want felt of more accurate and carefully ordered observation to make the knowledge of some the useful property of all; and it is indeed to affections of this latter class that the attention of contributors to this laborious undertaking is specially and with wisdom directed. It is well to remember, that not only is new study needed in all forms of disease for the advancement of medical knowledge, but also individual observation of what is already known is absolutely required of all those who would practise their profession aright. The work of others, however final and light-giving it may be, must be appropriated and felt to be our own before we can use it with confidence, and for the full benefit of our patients. There is probably much danger in the present day of forgetting this all-important fact in the confessedly laudable effort to extend the area of our knowledge, and to multiply discoveries by original research, especially when it is so easy to make a kind of scientific reputation by the invention, or even the use, of some new instrument of precision, or by the suggestion of a novel method of treatment. In clinical medicine especially, a thorough and personal grasp of what is already known is necessary for the productive prosecution of new inquiries.

It is perhaps in the domain of treatment that the inaccurate and unfounded antagonism we have alluded to between the methods of observation and experiment is most likely to be brought forward with some plausible appearance; and in a recent controversy, regarding the tentative use of a new drug, we have had occasion to point out this fallacy as occurring in some of the arguments adduced. Were our pathology far more advanced towards completeness than it is at present, and were there an equally increasing probability of curing diseases of the human body by extraneous medicaments, there might indeed be a wider justification than there is at present for trying the effects of drugs in a strictly experimental sense. But modern study appears to point in a different direction, and proportionately narrows this field of experimentation, not to mention the other limits assigned to it by conditions other than those which are purely scientific or medical. With these limits, and, indeed, with this special department of our subject, we have already, perhaps, sufficiently dealt in previous articles, but we refer to it here once more in order to emphasize the fact that in the sphere of therapeutics pre-eminently a careful study of diseases is absolutely necessary. This may seem a useless injunction and self-evident enough, but it is nevertheless too often disregarded. Owing, perhaps, to a natural longing to advance the healing art, or to add to our armamentarium, owing also to the great facility there is for constantly putting forward some new remedy owing to the frequent impossibility

of disproving allegations as to its efficacy, it is not rare to see a superficial regard of symptoms taking the place of scientific diagnosis based on observation ; and an entirely false assumption of the nature of a case being made, a claim to original research under the guise of the method of experiment is put forward in the sphere of tentative treatment. In proportion as the study of the nature of diseases is hurried and incomplete, so is this claim inappropriate and ill-grounded. Of all *specialties*, that of therapeutics being baseless is most misleading. Scientific treatment must ever go hand-in-hand with careful diagnosis : in this union there is strength ; but when therapeutical questions mainly engross the mind there is the ever present danger of relaxing our efforts in the search for causes, and proceeding at once, and at all hazards, to attack a symptom, often regardless of probably concomitant and undesirable effects. It is then an obviously superficial and unintelligent view, though not unrepresented in medical literature, that regards experimental therapeutics as the sign and seal of scientific advance in medicine, and that seeks, therefore, to discredit the method of observation by wrongly describing and depreciating it as old-fashioned and demonstrably fruitless. The truth rather is, that there is no real opposition between observation and experiment as methods of scientific research ; both are necessary in different proportions at different periods of advancement. An observation intelligently carried out is often tantamount to an experiment, and but few experiments conducted without knowlege founded on observation are of any value whatever, being indeed often fallacious, and, in medicine, dangerous. If we are to make advance in the study of the great and interesting subject of functional nervous disease, and to become better acquainted with the intricate matter of the physiology and the pathology of mind, it is clear that we must largely trust to the method of observation. In this vast field, experimentation, even if the soil were ready for it, would be necessarily almost entirely precluded, though much light on it may be looked for from the experimental method in comparative physiology and pathology ; and this leads us in conclusion to remark, that in the very same law which forbids us experimenting on our fellow-beings to their hurt for the sake of useful knowledge, we find a full justification of the proper use of the lower animals for this purpose. The practical test of our social and moral laws is the good of men ; their freedom, mental satisfaction, and bodily welfare. And if it be for this object only that it is allowable and necessary to use and sometimes inflict pain on the lower animals, it follows that our fellow-creatures, unless their civil status or their lives be forfeited, must ever remain exempt from penalties alleged to be for the good of the race ; for the good of men must always mean to our finite intellects the good of our individual fellow-beings.

A CHRISTMAS entertainment was given to the patients in St. Mary's Hospital on Wednesday last. The large ward in the new wing, which has just been completed was utilized for this very laudable purpose.

DR. COUVIDON'S REPORT TO THE FRENCH GOVERNMENT ON THE CHOLERA IN EGYPT.

THERE is reason to believe that within the next week Surgeon-General Hunter's complete report on the Cholera in Egypt will be given to the world. Its publication should be almost coincident with the initiation of sanitary reforms throughout the Delta, for it is generally understood that the British Government will be prepared to act upon the information their delegate has now placed in their hands. A review, therefore, of what Dr. Couvidon has to say upon the subject should have a special interest and value at the present time, for though his personal observations appear to have been chiefly confined to a small area of country, namely, Port Said and its neighbourhood, the conclusions he has arrived at are definite, and drawn in part from evidence collected throughout the whole country. Moreover, as the main question of interest, hygienic and commercial, is connected with the origin of the disease, anyone who is prepared to speak positively, and at the same time lay before his audience the grounds upon which his assertions are made, deserves to be listened to with attention. Through the courtesy of Surgeon-General Hunter we have been able to obtain a copy of the report Dr. Couvidon has issued.

The International Sanitary Conference, held at Vienna in July, 1874, is perhaps responsible for the popular belief that Asiatic cholera is always freshly imported from India; yet the Conference itself did not actually arrive at that conclusion. It agreed that "Asiatic cholera, susceptible of spreading (epidemically), was spontaneously developed in India, and that when it broke out in other countries, it had always been introduced from abroad, and that it was not endemic in any other country but India." This decision, however, does not say that when the disease has once been introduced, it may not exist permanently ; but the language in which the clause has been drawn up is sufficiently diplomatic to be misleading and therefore dangerous — misleading in the sense of allowing a loophole for misinterpretation, and dangerous in influencing those who concentrate the disease by enforcing quarantine and cordons. Since the Conference in 1874, many have raised their voice against the importation theory, notably Surgeon-Major Lewis in his official report upon the cholera outbreak at Aden in 1881. Now, Dr. Couvidon does the same thing, though evidently with the feeling that his cry will be in vain.

The cholera is stated to have first appeared at Damietta, on the 22nd of June ; and two Commissions, one delegated by the Conseil de Santé et d' Hygiène Publique, the other by the Conseil Sanitaire Maritime et Quarantinaine, met at that town on the 24th of June, to investigate the disease which had just made its appearance and to determine its nature.

The medical report of these two Commissions, though somewhat brief, is sufficiently conclusive ; the following are its last two paragraphs :—

"The Commission has endeavoured to find out whether those patients first affected by the disease belonged to the place itself, whether they had quitted it before falling ill, and whether they had had anything to do with persons or things coming from without."

"Being unable to collect any precise information on

these heads, and thus being without adequate data, the said Commission finds it impossible to establish the origin of the cholera epidemic which has appeared at Damietta."

"This statement is clear enough," says Dr. Couvidon, "but I am for my part even more precise : *I affirm, and I prove, that the present epidemic cannot have been imported.* During an epidemic, intemperate zeal exerted by officials may bring about formidable consequences affecting the public and commercial interests. It is not easy to determine the precise motives, either individual or general, which attribute the epidemic to importation, notwithstanding the statement laid down so clearly by the mixed Commission. But, however this may be, the fact remains that nameless Bombay merchants, and phantom ships full of merchandise, have been conjured up, and these are said to have brought the cholera from India to Damietta direct, without leaving any trace behind them at Suez and Zagazig. This is a hoax which has fortunately received no serious attention, either from the public or from official circles." Dr. Couvidon then deals with the old worn-out story of Mohammed Kalifa, the stoker on board the *Timor*, which has long been decided to be "yarn," and need not now be repeated. He concludes his remarks on the question of importation by showing how the littoral of Egypt has only two points at which ships coming from India can touch—Suez and Port Said—and how at neither of these ports was there any appearance of cholera, except among *such people as had come from Damietta.* "*Thus,*" he says, "*it is clearly proved that the present epidemic originated in Egypt.*"

Having in this way summarily disposed of the first question, he proceeds to the second—namely, the nature of the disease itself, and in this part of the report we come upon several interesting pathological observations, though the conclusions drawn from them are, perhaps, somewhat rash and premature. Three patients who came under his notice at Port Said had just arrived from Damietta, and presented all the characteristic symptoms of Asiatic cholera, but, in addition, the conjunctivæ were highly injected and there was delirium ending in coma. All three recovered, but upon a fourth and similar case, which ended fatally, an autopsy was made. Here the cavities of the heart were found distended with liquid blood, the meninges, brain and cerebellum congested, and the ventricles full of serous fluid. This condition Dr. Couvidon declares to be unknown in ordinary Asiatic cholera. He says : "Je n'avais observé rien de pareil de Cholera Asiatique ni en 1849 ni en 1853 ni en 1866 ;" and adds that the disease at Damietta was one *sui generis*, which might be called Cholera of Damietta, or Egyptian Cholera, until some more appropriate name could be found for it. Later on in the report he gives his own interpretation of the disease, and this is prefaced by information which is most interesting and not a little startling.

It appears that in 1868 there was a serious outbreak throughout the Delta, and especially at Damietta of the cattle disease known as "Epizootic." At that time the Viceroy, Ismail Pacha, required some animal charcoal for his sugar factories, so the governor of Damietta issued an order requiring the fellaheen to leave their cattle, when they died, in the open fields, so that the jackals, stray dogs, crows and insects might reduce their carcases to skeletons. Thus he hoped to obtain the bones required for the factories without expense. The order was carried into effect ; but notwithstanding the united efforts of crows, jackals, stray dogs, &c., the bones appear neither to have been picked clean nor removed to the factories.

It was during this time that Dr. Couvidon first noticed the outbreak of special troubles among the people, best described, perhaps, in his own terms "affections cutanées fort graves: anthrax, pustule maligne, ecthyma et enfin charbon pestiiential accompagné de bubons inguineux ou axillaires souvent suivi de fievre, de delire, de coma, et enfin de mort. C'etait bien réellement la peste a different degrés mais elle ne revetait pas un caractère epidemique et nulles mesures ne furent prises contre elle. Tels furent les résultats de la putrefaction â l'air libre de cadavres d'animaux."

After this Dr. Couvidon states that post-mortem examination of his patients disclosed cerebral pathological conditions analogous to those mentioned in the cholera cases already alluded to : and he adds that in Europe he has often met with symptoms resembling those of Asiatic cholera among people who have taken fluid charged with decaying animal matter. The most notable instance being that of a dissecting-room porter, who for a wager drank water from a bucket in which human remains were left soaking.

We now come to the conclusion Dr. Couvidon has thought fit to form upon the observations he has made : it amounts to a belief in the Egyptian form of cholera being a mixed type of the disease, or as he says "en grande partie du Cholera Indien, et en moindre partie de la Peste."

The different effect produced upon the people by the epizootic of 1868 and that of the late year is accounted for by the fact that during the former epidemic the carcases of the animals were scattered over a larger extent of land : thus the emanations from them were inhaled by the fellaheen in small doses only, while the products of decomposition were never drunk. But during the last epidemic of epizootic an astounding order was issued, the results of which, Dr. Couvidon says, are "as manifest and historical as those of the policy of Arabi and Company." It was to this effect—that every fellah who lost a beast from the disease should pay twenty piastres (about five francs) for the right to bury his animal. The outcome of this monstrous order, given to a people already over-taxed and broken, is easily foreseen : rather than attempt to pay a sum which many did not even possess, they cast their dead beasts into the rivers and canals, thus polluting the sole source of their drinking-water supply. Here, then, was an additional factor of disease added to an already sufficiently long catalogue, enumerated by Dr. Couvidon as follows :—General misery, traditional filth, want of air and light, narrowness of streets, encumbered with every kind of rubbish ; improper food, moral depression, want of courage, and terror. This disposes of the third question, namely, the causes of the disease. "Qui ne sont que trop facile à determiner et l'on doit être surpris que n'existe pas a l'epidémique permanent."

CLINICAL PAPERS.

No. III.—The Diagnosis of Mitral Constriction.

Simple mitral constriction is of far more frequent occurrence than is generally allowed, and its diagnosis probably presents greater difficulties than any other serious lesion of the valves on the left side of the heart. We exclude from consideration cases which are complicated by regurgitation, because the latter, when advanced enough to produce grave symptoms, is easily detected; and the presence of constriction as well in such cases is not of great practical importance. But when, as not rarely occurs, the question is whether stenosis of the mitral orifice be present, and the cause of serious symptoms, or whether the heart be healthy, and the distress and danger due to other conditions, accurate diagnosis becomes a matter of the utmost moment. In a typical case the observer feels a thrill at the apex preceding the impulse of the heart; he hears at the base a clear second sound over the aortic valves, an exaggerated one to the left of the sternum, and at the apex a rolling præsystolic murmur, gradually increasing in intensity and leading up to a short and sharp first sound, which is not succeeded by any appreciable second sound. The diagnosis of mitral stenosis under such circumstances admits of little doubt.

But in a second series of cases both murmur and thrill may be absent, and the heart's action regular, and the difficulty of detecting the disease then becomes great. The most striking auscultatory phenomena are accentuation of the second sound at the base to the left of the sternum, and, what is of much greater importance, a peculiar hesitation in the production of the first sound, a kind of hanging-fire, which is easier for the experienced auscultator to appreciate than to describe. Whatever be its origin, whether it be a faint sound caused by the blood passing through the constricted orifice into the ventricle, and so practically a murmur, or be due to a slowly beginning, though suddenly ending, ventricular contraction, it is a phenomenon which at once strikes the ear and suggests the nature of the disease. In these and all other cases of suspected constriction of the mitral orifice, the detection, if possible, of increase in size of the left auricle and right side of the heart, yields valuable corroborative evidence.

There is a third class of cases, in which there may be no murmur, no thrill, no hesitating first sound, but extreme irregularity of cardiac action, the beats being very frequent and very irregular both in rhythm and in force; so much so that a great many of them produce no pulsation at the wrist. In some cases as many as half the beats of the heart are not felt in the radial artery, so that the pulse there may be moderate in frequency, although the cardiac contractions succeed each other with extreme rapidity. Similar phenomena may likewise be observed in cases of simple dilatation of the heart with degeneration of its walls, such as occurs, for example, in chronic bronchitis and emphysema; but then the patient is usually past middle life. If grave cardiac symptoms be found in a comparatively young person, and if auscultation only reveal extreme irregularity in the heart's action, the presence of mitral stenosis ought to be at once suspected. The administration of digitalis in such cases not only often removes the patient's distress, and produces regularity and normal frequency of the heart's beats, but also facilitates diagnosis. For when the heart's action gets slow and regular a præsystolic murmur frequently makes its appearance.

Finally, there are cases of considerable mitral constriction which produce no sufficiently well-marked morbid phenomena to enable the observer to detect the presence of heart disease. But the pathologist not infrequently meets with these narrowed orifices in the post-mortem room in patients who have died from other diseases. The reflection is then forced upon him, how extreme some pathological conditions require to be before they come within range of our present powers of diagnosis.

Ω

REVIEWS AND NOTICES OF BOOKS.

THE CLINICAL WRITINGS OF DUCHENNE.[1]

There are few medical authors of modern times more universally known, or more deservedly appreciated, than Duchenne de Boulogne. This distinguished neurologist, by his indefatigable industry, by the brilliancy of his discoveries, and by his scientific and at the same time graphically vivid descriptive powers, ranks amongst those classical investigators whose labours will leave an indelible impression on the history of medicine. Like Celsus and Sydenham of former days, and Watson and Trousseau of more recent times, he was one of those great clinical teachers who not only during his life added a romantic charm to the study of medicine, but who by the value of his researches, the accuracy of his observations, and the soundness of his doctrines, has left to posterity such a rich store of knowledge and instruction as falls to the lot of few to have accumulated. Duchenne was an almost unique exception to the general rule, an example of an investigator of the foremost rank, who not only held no official position in his profession, but who did not even belong to the staff of any public institution. He himself tells us that, in order to carry out his own system of inquiry, he purposely declined to attach himself as physician to any hospital, as he believed that by so doing his range of observation would become a restricted one; but by utilising the property of others, which was always cheerfully placed at his disposal, there were no limits to his field of inqury. A further peculiarity in the character of this illustrious savant

[1] Selections from the Clinical Works of Dr. Duchenne (de Boulogne). Translated, edited, and condensed by G. V. Poore, M.D. The New Sydenham Society, London, 1883.

was the fact that he rarely studied the writings or investigations of his contemporaries until he himself had mastered the details of that particular research which he undertook; so that, as he expresses it, he might view the subject entirely from an independent aspect, and not through the spectacles of another. From this point of view, most of his work may be said to have been original; although it is well known, and he himself admits, that in many instances some of his discoveries have been shared, or even anticipated by others. There are, however, few branches of medical science to which his attention was directed which he has not adorned with a masterly hand, and there are many which to him entirely owe their existence. Besides a mass of contributions to the literature of his time on a variety of subjects, his two great productions of "L'Electrisation Localisée," and "Physiologie des Mouvements" alone constitute an era in the history of medicine, and will remain as standard works of reference while that science continues to exist.

The labours of Duchenne are already so well known and universally recognised in this country, that a translation of his works seems to have been superfluous. We have, however, before us a volume produced by Dr. G. V. Poore, under the auspices of the New Sydenham Society, the addition of which to an English Standard Library cannot but be looked upon as a national compliment to an illustrious confrère, even if its contents are not novel to the educated physician. Duchenne was a most prolific and voluminous writer; and his somewhat diffuse style, added to the enormous extent of his researches and observations, have led to the accumulation of a vast hoard of literary material. The arrangement of the work under notice has been carried out with judgment; and in a concise yet comprehensive form, all the characteristic and important conclusions of the author are presented to the English reader. The editor points out that, as the electrical investigations of Duchenne have already been translated by Dr. Tibbits, he has confined himself to a reproduction of those researches on clinical medicine with which the name of the author has been more especially associated, and which have been selected from his various writings. These have been in certain parts abridged, yet the essential features have been maintained.

To attempt a criticism of the works of Duchenne would be here not only out of place, but, on account of the vast field over which they extend and the important issues they comprise, by the ordinary reviewer would be impossible, if not disrespectful to the memory of the departed genius. They are the efforts of a great master, and their doctrines must stand on their own merits, to be judged of by posterity in the light of the future advances of science. A re-perusal of the works of this author on many of the diseases which he studied and described, indicates how little has really been added to our knowledge of these affections since his day, in spite of the improved modern methods of research now at our disposal, and how admirable was his graphic delineation of their salient features. His narrative, descriptive of Locomotor ataxy, for example, remains almost perfect, according to our present knowledge of the disease, and with the exception of a few minor points of detail his representation still remains unsurpassed. If the discovery of this malady was not entirely due to Duchenne, as he believed it to be, there can be no doubt that to him is owing not only its name, but the first clear and definite portrayal of the associated symptoms in that form, which has established to the world the clinical and pathological picture of the disorder. How ample also and how accurate is his description of what has now received the modernised terminology of acute and chronic poliomyelitis! Here again, with the exception of one or two minor points, no practical additions to our knowledge of the disease have been made since his day, and in all essential features his description may still be ranked as the standard representation of these morbid states. Of Pseudo-hypertrophic spinal paralysis, the name he gave to what is also known as "Duchenne's paralysis," his account may even now be looked upon as more or less complete. In this affection the author does not seem to have observed its occurrence in adults, believing it to be exclusively a disease of infancy or childhood. We now know however that, although somewhat rare, it not unfrequently appears later in life, and many characteristic cases have of late years been published in evidence of this. Duchenne also does not appear to have attributed any importance to the atrophy of muscles which forms so important a complication to this pseudo-hypertrophy. With these exceptions little has been added to our knowledge since the original monograph on the disease by its discoverer. Almost the same can be said of many of the other conditions which Duchenne delineated, a fact which gives further evidence of the marvellous industry, perseverance, and penetration of that cultivated physician.

At the same time science is always advancing, new lights are thrown on its phenomena, additional facilities are obtained for inquiry, and fresh revelations are disclosed. Even since the time of our author, progress in the histology and pathology of the nervous system has made vast strides, and many of the doctrines only predicted by Duchenne, and put forward by him as hypotheses from analogy, are now demonstrated to have actual existence in fact. Twenty years ago the microscopical conditions of the morbid nervous centres were practically unknown, and their appreciation was attended with great uncertainty and doubt. Now many of these have been determined with the utmost precision, their characteristic features displayed, and their association with certain clinical states clearly recognised. The art of physical diagnosis, which is so important in the investigation of all diseases, and which is more particularly wanting in those of the nervous system, has made improved steps in advance. The discovery for example of the tendon phenomena has given a great impulse to diagnosis and greatly facilitated our conceptions of many morbid states. The advantages of this method of inquiry were unknown to Duchenne, and its general adoption by neurologists is only of very recent date. The science of electro-diagnosis has also by its extended improvement added further assistance to our appreciation of disease. Although Duchenne was the great pioneer and champion of electrical investigations, he almost entirely limited his attention to the effects of the induced current. More recently however, mainly owing to the exertions of Remak, Ziemssen, and Erb, galvanism has in addition been utilised in the same direction. However important may be the revelations of one of these agents alone, there can be no doubt that the employment of both together has been a real advance in the art of diagnosis. Duchenne overlooked the value of the continuous current for this purpose; but later investigations have proved that this, in conjunction with faradaism, is a more powerful auxiliary in the hands of the physician than when the last only is employed. Thus medicine is essentially a progressive science, and the labours of one generation, although they are the necessary pioneers to those of the succeeding one, are rarely found to hold their own with the subsequent discoveries of those which follow. This cannot as yet be said of the works of Duchenne, which now, and in all time, will continue to rank, like those of some of his great predecessors, as lasting monuments of his industry and genius.

CLOUSTON'S CLINICAL LECTURES ON INSANITY.[1]

By giving his book the title of "Clinical Lectures," and by keeping pretty steadily to the intention that this title expresses, Dr. Clouston has been able to evade the greatest difficulties that cluster round the subject of insanity, and to produce a work which raises no abstruse psychological questions, stirs none of the deep problems that concern the connection of mind with matter, starts no dazzling theories, but deals with the concrete practical matters which the asylum physician has daily and hourly to examine and decide, and with which every medical practitioner must more or less often come into contact. The aim of a book which deals with insanity from a clinical point of view only is not a very ambitious aim, but it is an eminently useful and serviceable one, and it has the enormous advantage that it is attainable; an advantage that does not appear yet to belong to the systematic treatment of the subject. The wisdom of Dr. Clouston's determination to limit himself to the concrete aspects of his subject is shown by the result. He has succeeded admirably. As a guide to the management and treatment of insane people, and to the best known means of curing their malady, the book is excellent. It is the epitome of many years' experience of an acute, patient, shrewd observer, and of a sagacious physician. The author keeps his clinical practical aim steadily in view. He rarely loses touch of his facts. He rarely makes a statement of fact without bringing up evidence in support. His pictures of clinical cases, of which he gives some 260, are graphic, concise, and true; and scattered through the book are many acute reflections, and some that are even profound.

Dr. Clouston has, however, the defects of his qualities. In clinical lectures for the use of students and for the guidance of medical practitioners, insanity must of course be looked on as a disease, or (on Dr. Clouston's method) as a group of diseases. Against this there is not a word to be said. But the author is not content with this. He endeavours in every possible way to assimilate insanity to bodily disease, to view the one as a variety of the other, and to apply to the former the terminology of the latter. The inevitable result of such endeavour is confusion. There is, indeed, a superficial and very misleading appearance of simplicity in the use of such phrases as "paralysis of appetite," "paralysis of self-love," "paralysis of thinking and volition," "anæsthesia of conscience," "mental protoplasm," and other expressions in which psychological facts are spoken of in terms that are properly applicable only to physiological facts; but the apparent simplification is dearly paid for by the confusion that is produced between two distinct classes of facts. Dr. Clouston's classification is an extremely good one for the purpose in view—the clinical distinction of varieties of mental disorder—but it is vitiated by the mongrel terms that he applies to his groups—Psychalgia, psychlampsia, psychokinesia, psychocoma, psychoneurosis, and psychoparesis. Psychalgia he speaks of as mental pain, as if there were some other pain which is not mental. The other terms bring into forced contact two ideas that refuse to amalgamate. Eclampsia is a sudden and excessive muscular contraction, caused by a sudden and excessive nervous energising, and applied to bodily processes it has a clear meaning; but when this term is applied to mental processes, it ceases to have a meaning, for mind has no muscles to contract and no nerve centres to energise. Coma we know as a bodily condition, accompanied by loss of consciousness. Psychocoma should be then a mental condition, accompanied by loss of consciousness, which is a contradiction in terms; and similarly with the other names.

Dr. Clouston keeps as far as possible aloof from all reference to the subjective aspect of mind—its composition, divisions, and faculties—but he is sometimes compelled to deal with it, and then is not very successful. In a systematic treatise on insanity this would be a serious defect; in clinical lectures it is not perhaps of much moment, but still a lecturer on mental disorders should not make such a statement as that "The chief faculties, looked at from the mental point of view, are consciousness, perception, ideation, and judgment, volition and mental inhibition, affective faculty or all that relates to feeling and emotion, memory, power of attention, representation and imagination, association of ideas and speech" (p. 24). Nor should he speak (p. 450) of "an identical and simultaneous lesion affecting both the motor and mental ganglia." These blemishes are found, however, only where Dr. Clouston is compelled to touch upon the difficult aspect of the subject, which is scarcely brought into view in clinical work, and they do not in the least affect the accuracy of his portraiture of disease or the excellence of his therapeutic teaching. But as they arise from that neglect of the study of normal psychology, which is so general among those who have to treat disorders of the mind, it is right to point out that even the most practical and experienced psychiatric physician cannot afford to dispense with this branch of knowledge. Like all practical men, Dr. Clouston theorises occasionally, and, as is usual in such cases, he is apt to present his theories in the guise of facts. "There is no doubt," he says (p. 381), "that apoplexies and all sorts of other gross limited lesions produce, in unstable brains, great convolutional disturbance *through reflex excitation*" The words we have italicised convey a theory which is new and requires further explanation to become intelligible.

The literary style is, like the thoughts, as a rule vigorous and lucid. On the whole, it is exceptionally clear and intelligible for a book on insanity; but here and there we meet with terms and phrases that fail to convey a definite thought—such as "mentalisation," "religionism," "the law of solidarity of action" of the brain; and occasionally we find a slip, as on p. 371, where a patient is said to "smell pepper." But these defects are few and rare, while the merits of the book are conspicuous on every page. As to the clinical teaching which forms the bulk of the work, little need be said. If he had not previously done so, Dr. Clouston has by this book established his reputation as one of the very first authorities of the day in his specialty, and he worthily maintains the traditions of the British school of psychiatry.

[1] "Clinical Lectures on Mental Diseases," by J. S. Clouston, M.D., F.R.C.P.E. J. & A. Churchill, 1883. Crown 8vo, pp. 631. Illustrated.

Hurry, Worry, and Money: the Bane of Modern Education; by T. PRIDGIN TEALE, M.A., Oxon, F.R.C.S. Leeds: Goodall.—This is the address recently delivered by Mr. Teale at the recent Social Science Congress, supplemented by an appendix containing a mass of evidence and opinion in support of the views advanced in the address. The whole forms a most powerful indictment against the modern system of education, and deserves the earnest study of every doctor, of every parent, and of every politician. The vast majority of the members of the medical profession, who have exceptional opportunities of forming an opinion on the subject, will agree with Mr. Teale, that education in England is drifting away from a high, wholesome, and sound standard, that the increasing tyranny of innumerable examinations is spoiling the work, and wasting the energy of industrious men and original thinkers, sacrificing the industrious in order to whip on the idle and indifferent, and forcing the accumulation of information at the expense of training. The question is essentially a medical one; education to be really safe and successful must, as Dr. Crichton Browne has contended, be conducted "in harmony with the laws which medical science teaches." We should like to see Mr. Teale applying his principles in another pamphlet to the modern system of medical education, a subject on which he could speak with, if possible, even more authority than on the subject of education in general.

Medical Diagnosis. A Manual of Clinical Methods; by J. GRAHAM BROWN, M.D. Second Edition. Edinburgh: Bell and Bradfute, 1883.—The favourable opinion which we formed of this work a few months ago is fully confirmed by the speedy appearance of a second edition. The value of the book has been very considerably increased by the insertion of copies of the plates of Ziemssen's motor points; the sections on the use of the ophthalmoscope and laryngoscope also constitute useful additions, and we wonder that it did not occur to Dr. Brown to give some general directions for ascertaining the causes of deafness; surely it is not necessary to relegate a patient to a specialist to decide whether he is suffering from Eustachian or tympanic deafness. We hope that in the next edition this little want will be remedied; and we would suggest also, in reference to future editions, that locomotor ataxy is not usually regarded as the most common cause of nystagmus, and is, indeed, so rarely, if ever, a cause of it, that any mention of it might have been safely left out.

Anæmia; by S. LAACHE, Christiania, 1883, pp. 276.—This work, undertaken by Dr. Laache at the instigation of Professor Worm Müller, presents the results of a long series of observations made by its author in the Physiological Institute of Christiania, upon the various forms of anæmia. The experiments ranged over a fairly large field of material, and were directed especially towards the determination of the relative alteration in number and size of blood corpuscles and their variation in hæmoglobin-contents in a series of the so-called "blood-diseases." As a basis from which to work, an analysis was made of observations upon sixty cases of persons in presumably perfect health. From this it appeared that the average number of blood corpuscles per cubic millimetre was, in men, 4·97 million, and in women, 4·43 million. The hæmoglobin ratio per cubic millimetre was, in men, 0·112 milligrammes, in women, 0·099 milligrammes. Observations were then made upon cases of anæmia after hæmorrhage in healthy and unhealthy subjects respectively. In the former cases the results proved that the number of red corpuscles may fall far below 50 per cent. of the normal quantity without a fatal issue. The mode of regeneration of red corpuscles was studied at the same time, and Dr. Laache observes the excessive number of microcytes present in the specimens of blood taken during the period of recovery after hæmorrhage and notes the small amount of hæmoglobin which the new corpuscles at first appear to contain. In one case of recovery after severe purpura hæmorrhagica, however, the regeneration of the corpuscles and of their hæmoglobin-contents appeared to go on simultaneously. The anæmic conditions supervening upon typhoid fever, Bright's disease, phthisis, &c., were each in turn examined. The investigations into cases of chlorosis are given very fully. The action of iron in aiding the reproduction of corpuscles is also carefully considered, and a confident opinion expressed that its influence is chiefly to be noted in the hæmoglobin-content of the cells rather than in the increase in the number of the cells themselves. The subject of "pernicious" anæmia is treated at greater length, and the observations upon the cases recorded form a valuable contribution to the literature of the disease. Eleven cases accurately observed and carefully reported, most of them rendered complete by post-mortem examination, form solid material from which to draw conclusions. The frequent occurrence of microcytes in this, as in other forms of anæmia, led Dr. Laache to investigate them with especial care, and he records his belief that they are in reality simply small sized red corpuscles. In reply to the observation made by other investigators, that they sometimes assume a globular form, he points out that this only occurs when the blood is diluted with a saline solution, and is not to be found in any preparation of undiluted fresh blood. The poikilocytosis observed by Quincke and others, is regarded by the author as by no means characteristic of this form of anæmia, and he suggests the possibility of artificial modifications of form as a result of preparation. His own observations lead him to regard the occurrence of large highly coloured blood discs as more truly pathognomonic of the disease. The work, which concludes with some useful observations upon leukæmia and pseudo-leukæmia and a series of illustrative charts, bears upon it the stamp of genuine study and careful observation. Whilst enunciating clearly his own deductions from the observations which he records, the author does not disregard the opinions of previous workers in the same field.

Diseases of the Brain and Spinal Cord: by DAVID DRUMMOND, M.A., M.D. *London: Henry Kimpton*, 1883.—The amount of attention that has been given of late years, and is still being given, to diseases of the nervous system, would probably cause considerable surprise to some of our predecessors, who managed to put all they wanted to say on this subject in as many lines as it now takes pages. The volume before us is addressed to students and practitioners. We think that it will prove of more service to the latter than the former, mainly because the various descriptions seem to us to assume, and certainly require for their due appreciation, a certain amount of knowledge on the part of the reader. In his preface the author apologises for the rough character of some of his illustrations on the score of expense; it is an excuse for, but not a justification of, a defect, to which we should certainly have otherwise called attention. In discussing the differential diagnosis of apoplexy due to cerebral hæmorrhage from that due to other causes, we would prefer to almost reverse the order in which he deals with these latter, and would say, that cerebral hæmorrhage is to be distinguished first from an epileptic fit, then from alcoholism, injury to the head, narcotic poisoning, and uræmia. To place uræmia first on the list is, to our thinking, misleading, as the student might thereby infer that this was the most common condition likely to be mistaken for cerebral hæmorrhage. It seems to us, too, that Dr. Drummond does not lay enough stress on the important aid to be derived from the history of the case. In the absence of a history, it is often impossible to exclude epilepsy or injury; and, on the other hand, it is sometimes possible to arrive at a correct diagnosis of cerebral hæmorrhage from the history alone; another point, too, which is sometimes of great value, but to which no reference is made, is the condition of the pupils—a patient in a state of coma with unequal pupils should never be treated as suffering from the effects of drink alone. The chapters on basilar meningitis, and meningitis of the convexity, are amongst the least satisfactory in the book. The symptoms of the latter affection are, indeed, most obscure, and it seems to us that Dr. Hammond is really describing cases of acute general meningitis, which are not very uncommon, and are often probably of a pyæmic nature. Such symptoms, for instance, as irregular respiration or retraction of the head, point to a basic affection

rather than one of the convexity. Nor can we agree with the statement, that in tubercular meningitis optic neuritis is seldom met with, and that in simple meningitis of the base it has been observed with tolerable frequency, our own experience pointing to an exactly opposite conclusion. The chapter on syphilis of the brain contains a concise account of the various lesions that may be met with—periostitis, caries, pachymeningitis, gummata of the pia mater, sclerosis, periarteritis, endarteritis, and neuritis. The extreme importance of the early recognition of the fact, that any given symptom is the result of a syphilitic lesion of the nerve centres, gives to this subject a value at least as great as that of any other in the whole range of diseases of the nervous system, and the precision with which the symptoms and diagnosis are given in this chapter proves that Dr. Drummond is fully alive to this fact. The insertion of a chapter on general paralysis of the insane is certainly a step to be highly commended. In these days of specialists, we are too apt to relegate this disease bodily to the alienists, and one result of this is that the majority of practitioners cannot recognise the disease when they meet with it, often to the very great detriment of their patient and his friends. The last part of the book is devoted to diseases of the spinal cord. Dr. Drummond is in accord with all modern writers as to the pathology of infantile paralysis, progressive muscular atrophy, and locomotor ataxy, but he differs from the majority of them in including pseudo-hypertophic paralysis amongst the diseases of the spinal cord. He apparently relies mainly on a case in which he had himself examined the spinal cord, and found that "disintegration of the lateral gray network, especially of the left side, and most marked in the lumbar enlargement, was clearly discernible; and in addition there was a conspicuous bulging on one part of the left lateral column, due to a cavity containing serum which was surrounded by gray matter, and extended a considerable distance up the cord from the lumbar enlargement. The ganglionic cells appeared to be normal." It appears that Dr. Bramwell and Dr. Gowers had previously described very similar changes, which, however, neither of them seems to have considered of much moment. It does not appear to us that there is as yet such evidence as would justify us in classifying the disease in question as a disease of the spinal cord. Although neither chorea, tetanus, hydrophobia, paralysis agitans, nor any of the many forms of neuralgia or spasmodic affections find a place in this book, it is nevertheless a work which, as we said at the commencement of our remarks, will be of much service to the busy practitioner.

Sir Thomas Browne's Religio Medici; a Facsimile of the First Edition. Eliot Stock, 1883.—This delightful edition of a delightful classic should have the effect of making Sir Thomas Browne known to many of his modern successors who have never before studied him. It is admirably printed in old type, is bound in stamped oak boards, and is altogether a book to be treasured. The *Religio Medici* is chiefly of interest as conveying the picture of a rare and loveable mind, and as an example of a prose style of exquisite strength and delicacy. Like all great classics it exerts a powerful charm upon the reader and carries him in imagination out of this age of hurry back to a period which, but for its meditative calm, seems singularly akin to the present. Sir Thomas Browne had many qualities which should endear him to the medical reader. He was largely tolerant, happy in disposition, bold and independent in speculation, free from petty prejudice, fond and at the same time distrustful of paradox, and full of imagination, and of a quaint quiet humour. His mind was a strange mixture of the sceptical and the superstitious. Some of his views, which seemed startling to his contemporaries, are to-day accepted as commonplaces, while in other respects he cherished beliefs that are now universally discredited except at the Psychical Research Society. Nothing can better express the distance from us of the time in which he lived, and the nearness to us of himself, than the following passage:—"I feele not in me those sordid and unchristian desires of my profession, I doe not secretly implore and wish for Plagues, rejoyce at Famines, revolve Ephemerides and Almanackes in expectation of malignant effects, fatall conjunctions, and Ecclipses: I rejoyce not at unwholesome Springs, nor unseasonable Winters, my Prayer goes with the husbandman's; I desire everything in its proper season, that neither men nor the times be out of temper. Let me be sicke myselfe, if sometimes the malady of my patient be not a disease to me. I desire rather to cure his infirmities than my owne necessities. Where I doe him no good me thinkes it is no honest gaine, though I confess it to be the worthy salary of our well-intended endevours. I am not onely ashamed, but heartily sorry, that besides death, there are diseases incurable, yet not for mine owne sake, or that they be beyond my art, but for the general cause and sake of humanity, whose common cause I apprehend as mine owne." That is very finely said, and though it is almost the only passage in this book in which the author speaks of his own profession, it is a fair sample of the whole. The reader who would study Sir Thomas Browne will find an admirable essay on him in Mr. Leslie Stephens' "Hours in a Library."

The Diagnosis and Treatment of Diseases of the Ear; by OREN P. POMEROY, M.D. New York: Bermingham and Co.—A number of text-books on aural surgery have been published of late, so many, including new editions of old works, and translations of German authors, that we should hardly have thought another book on the subject needed. Dr. Pomeroy, however, seems to think otherwise, and we feel bound to admit that he has written a valuable and very readable work. In two respects Dr. Pomeroy departs from the plan generally adopted by writers on aural surgery. In the first place he has left out the introductory chapters on the anatomy and physiology of the ear. In the preface he very properly says: "Where it is desired to study the anatomy and physiology of the ear thoroughly, the books devoted to such subjects treat the matter more exhaustively than ordinary text-books on the diseases of the ear, can possibly do." Why authors should deem it necessary to turn to a work on anatomy, and extract from it more or less fully the chapters on the structure of the ear, has always been a mystery to us. They do not pretend that the material is original, and do not even attempt to stamp their individuality on the description, with the notable exception of Professor Politzer. To return, however, to Dr. Pomeroy's book; it is not disfigured in the second instance by cases spread *ad nauseam* throughout its pages. The cases given are aptly chosen, and more frequently than not are taken from the practice of others. The book is not a mere compilation. One feels the individuality of the author in almost every page. Each disease is treated of with due regard to its importance, or to what is definitely known about it. The description of acute purulent, and non-purulent catarrh of the tympanum, is as finely written as anything we remember to have read on the subject. In conclusion, we can heartily commend the book to the favourable notice of our readers, and we feel sure it will take its place among the best text-books on diseases of the ear.

The Dissector's Manual; by W. BRUCE-CLARKE, M.A., M.B., and C. BARRETT LOCKWOOD, F.R.C.S. *Cassell and Co., London*, 1883, pp. 390.—In this manual an attempt is made to collate the broad facts of anatomy, with a view to giving the student "a description of the way in which the structures that go to make up the human body may be displayed." Prior to entering upon a description of each dissection, the authors direct the student's attention to the position of the more important underlying structures, and excellent instructions are given for marking them out on the surface of the skin. Chapters three and four are sufficiently clear to be of service to the student who is learning to dissect; but the remaining portions of the book are compressed to such an extent, that, it seems to us, the student would be so confused with the mass of facts presented to his notice, that he would derive but little benefit from their perusal. This compression of the latter part of the work is the more to be regretted, as the major part of the first, and the whole of the second, chapter might well have been omitted. It is no doubt true, that the greatest ignorance often exists

among students as to the meaning of the simplest terms; but, surely, a glossary, in which such words as "*capsule*," "*dissect*," and "*clean*" are explained, is an unnecessary addition to the work. We must take particular exception to the chapter on the preparation of the body for dissection. There appears to be an increasing inclination on the part of authors of anatomical works to treat of *anatomical technics*, and, though in a large systematic work, a chapter on such a subject might be admissible, it is wholly out of place in a popular students' manual. The study of practical anatomy has hitherto been conducted without any undue publicity, and we think it is extremely injudicious to call unnecessary attention to the methods by which it is prosecuted, and to acquaint those external to the profession with the duties of a dissecting-room porter. (*Vide* pp. 14, 15.) We are aware that this is an era of manuals and aids, and pocket editions; still, we must confess that, though this little book contains many interesting and valuable hints, it is not at all clear to us what part in anatomical literature it is destined to occupy; and we would still prefer to see a student take his "Ellis" and patiently study his subject until he thoroughly understood it. The lett-r-press requires revision in many places, as such expressions as "a good foot," "if the foot is a really good one," and, again, when writing about the mammary gland, the statement that "a female about 30 years old would be the likeliest to afford a good one," might be altered with advantage.

The Alienist and Neurologist, Oct., 1883.—This quarterly journal maintains, on the whole, its high character, but its pages are disfigured by a bitter personal controversy concerning the case of Guiteau. A translation of Dr. Bianchi's article on Changes in Handwriting is of some interest. Dr. Kieman relates a third case of insanity from quinine, in which the causation appears indisputable. Dr. Van Derveer of New York, has removed Meckel's ganglion for the relief of severe facial neuralgia, with complete recovery from both the operation and the neuralgia in two cases, and partial relief in a third. The ganglion is exposed from the front by trephining the front and back walls of the antrum of Highmore. The editor contributes some useful hints on the minor treatment of insane patients, and the value of the number is enhanced by a fairly complete bibliography for the preceding twelve months. This section concludes with the declaration that "the hour is coming when it will be a proud distinction to a man that, living in the last quarter of this nineteenth century, he simply did his duty, neither speculated nor peculated; and, dying universally respected, they wrote above him as the best evidence of his philanthropy, this inscription: "For he had compassion on the multitude, and published nothing—not even his memoir."

The American Psychological Journal, Oct., 1883, continues its useful work of endeavouring to improve the position and treatment of the insane. The chief article in this number is a strenuous insistance on the point, often urged in these columns, that the business of asylum medical officers is not to manage the farm, or purchase the stores, or supervise the machinery, but to treat the patients. This desirable limitation of their duties is, however, as far off as ever, and there is not yet the slightest sign of its approach. Meanwhile, our knowledge of insanity is at a standstill, and our treatment is chiefly castor oil.

Elements of Practical Medicine; by A. H. Carter, M.D. Second Edition. London: H. K. Lewis, 1883.—As an introduction to medical students at the outset of their professional studies, this book is well adapted to its purpose, and the present edition seems to be as full of information as could reasonably be expected from its size. There are two doctrines, however, contained in it upon which the student will do well not to retain a firm hold; one is the view that the large white kidney ultimately becomes a typical granular kidney; the other, that membranous laryngitis "may probably, in some cases, be due to diphtheritic infection, and in others to severe inflammation of a non-specific kind." It is true that membranous laryngitis is not always due to diphtheria, but in the very large majority of cases it is so, and the quotation we have given is decidedly misleading.

ABSTRACTS AND EXTRACTS.

The Pathology of Cervical Erosions.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a long article by Dr. Carl Ruge, of Berlin, on the above subject. It is mainly devoted to the consideration and refutation of the views of Fischel[1] as to the origin of these erosions. The position of the question is this; according to Fischel, as our readers will be aware, cervical erosions are due to the stripping off of a superficial layer of pavement epithelium, and the consequent exposure of a glandular and papillary structure which previously existed underneath the last epithelial layer. This glandular structure he regards as a prolongation of the structure of the cervical canal beyond the external os, or, in other words, a physiological ectropion of the cervix. Ruge regards them as due to a new formation of glandular and connective tissue. He holds that no glands whatever exist beneath the epithelium of the healthy vaginal portion of the cervix. One of the main arguments advanced by Fischel is, that he has found glandular structure like that of the cervical canal, and the so-called granular erosion, on the vaginal portion around the os externum of newly-born infants, and also of virgins and nulliparous women. Ruge, in commenting upon this, says that the microscopical appearances of the granular erosion are perfectly distinct and different from those of the cervical canal. The morbid appearance of an eroded cervix often stops abruptly at the external os, the mucous membrane of the canal being healthy. The glands of the healthy cervix are more elongated, they show in their whole course little difference in breadth: while those of the erosions present numerous rounded bulgings-out, and collections of mucus; on section their borders appear like papillæ between which their orifices are irregularly disposed. Ruge has examined many specimens of the healthy cervix uteri, and has always failed to find glands on the vaginal portion; and in this he is supported by similar failure on the part of other independent observers. He therefore concludes that the glandular structures seen on the eroded cervix are not pre-existing glands, but new formations. Another argument which he advances, is the mode of healing these erosions, a process which he has watched step by step. The glands gradually diminish in size; their single layer of cylindrical epithelium changes into several layers of pavement epithelium, and the gland cavities become filled up. These changes sometimes take place uniformly over the whole surface of a gland: sometimes at one side of it only, and the appearance of a microscopic section varies accordingly. He therefore argues, that as they disappear in loco so they may arise in loco. The next piece of evidence which our author brings forward is derived from the examination of the hymen (or rather vaginal septum), in cases of hæmato-corpus. He found on the external surface of this membrane pavement epithelium, on the internal, cylindrical epithelium and glandular structures. He points out that there is a stage in the development of the genital canal in which the whole of it is lined with cylindrical epithelium; and thus the structure of the internal surface of the vaginal septum is only a persistence of a temporary natural condition. The bearing of this in the theory of Fischel is, that it shows that the presence of glands and cylindrical epithelium is not peculiar to the cervical canal, and that the existence of such structures on the vaginal portion of the cervix does not demonstrate that where they are found ectropion of the canal is present. Dr. Ruge has moreover examined cervical erosions in newly born children, and has found the histological appearances characteristic of them continued on to vagina. A further argument is derived from his own researches into the histology of cancer of the uterus. He holds that the appearances of cancer originating in the cervical canal, and the same disease commencing on the vaginal aspect of the cervix, are quite distinct: that he has traced the development of each form of the disease out of simple erosions; and that as the disease to which the two kinds of erosions lead is different, therefore the erosion of the vaginal portion is not a mere continuation of the cervical structure, but a new and different formation.

[1] *Medical Times and Gazette*, 1881, Vol. I., p. 107.

Histological controversies seem often of little moment in practice; but in this case the question at issue has important practical bearings, for we are told by Americans that almost all cervical erosions are nothing but the cervical mucous membrane, exposed by eversion, in consequence of laceration during childbirth, and are to be cured only by repairing the torn cervix. If Dr. Ruge be correct, that the common granular erosion results from a morbid process having its seat quite outside the cervical canal, it is clear that trachelorhaphy cannot be so often requisite as some of its advocates would have us believe.

Kairin in Acute Rheumatism.—A paper by Dr. H. Menche, of Rheydt, published in the *Centralblatt für Klinische Medicin*, No. 47, 1883, forms a small but instructive contribution to the slowly accumulating evidence of the action of kairin, the latest antipyretic drug. The experience of the writer as to its action in the pyrexial stages of pneumonia, pleurisy, and pernicious anæmia is by no means so satisfactory as that of some other observers. It cannot fail to be noticed, however, that a very large dose was employed in every case. In a case of asthenic pneumonia, in which one gramme of kairin was given every hour for seven hours, a marked reduction of temperature took place, but at the same time the toxic effects of the drug became very manifest. It should be added, that large doses of quinine and smaller doses of kairin had been tried previously without result. Depression of pulse, rigors, discolouration of urine, and a marked tendency to collapse were the symptoms accompanying the reduction of fever. In phthisis and anæmia similar effects were produced, severe sweating being also present in the former case. In a case of typhoid fever, in which hyperpyrexia had been uninfluenced by baths and quinine, the administration of seven and a half grains of kairin every hour for five hours had a very powerful effect in reducing temperature, but at the same time severe rigors, great depression of pulse, and delirium rendered the features of the case rather more serious than they had been before. Noting the points of resemblance between kairin and salicin, viz., their rapid antipyretic effect, and their tendency to induce delirium and other toxic symptoms, Dr. Menche tried it upon a case of acute rheumatism. The patient had been ill for six days, and several joints had been affected. Three and a half grains of kairin were given three times in one morning, and seven and a half grains four times in the same afternoon. Severe sweating was induced. Less pain was felt, but the joints were still tender in the evening. On the following day the drug was given again in smaller doses, with still further relief to pain. A relapse followed in twenty-four hours, pain returning as severely as before, with signs of pericarditis. With the free use of kairin (seven grammes in twelve hours) the pain and febrile disturbance were again reduced. The whole illness lasted nineteen days, during nine of which the patient took fifty grammes of kairin. A second case, of a patient with long-standing mitral disease, was also treated with frequent doses, with equally good results. Dr. Menche's experience of the drug thus leads him to compare it favourably with salicylate of soda as an antipyretic in cases of acute rheumatism, but to use it with caution in cases of other specific fevers.

Vaginal Cysts.—Dr. Max Graefe, of Berlin, contributes to a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* a short but interesting paper on vaginal cysts. He believes that these are less uncommon than is generally supposed, because they generally cause no suffering, and therefore are probably often unnoticed. He gives an account of ten cases under his own observation (occurring in Prof. Schrœder's clinic), in each of which a careful microscopical examination of the cyst wall was made. Adding to these cases published by Winckel, Klebs, and other writers, our author arrives at the following conclusions:—Out of 61 cases, in 29 the cyst was on the anterior vaginal wall, in 21 on the posterior, and in 11 laterally situated. He points out that this statement must be taken with the qualification that in many cases the cyst is not seated exclusively upon either vaginal wall. The colour, consistence, and morphological elements of the cyst contents differ widely, even in cysts apparently similar in structure. The thickness of the cyst wall varies from a millimetre to a centimetre. It is composed of connective tissue, with, in thick-walled cysts, smooth muscular fibres, that is, the structure of the vagina. Outside it is covered with pavement epithelium, like that of the vagina. Internally most cysts are lined with cylindrical epithelium, but now and again we find a single or several layers of pavement epithelium. There may be in the same cyst cylindrical epithelium at one part and pavement at another, as shown by Lebedeff[1] and in three of Dr. Graefe's cases. After describing their anatomy, our author discusses the different opinions that have been entertained as to their origin. Klebs looks upon them as dilated lymphatic vessels, for the reason that he has found them lined with lymphatic endothelium. Dr. Graefe has only been able to find records of three cases in which the interior had such a covering; and even in them he does not think that the inference follows, that the cyst must have arisen by dilatation of a lymphatic vessel, because Lebedeff[1] has shown that cylindrical may, in these cysts, become changed into pavement epithelium. For the rare cases in which the cyst is without any epithelial lining, Dr. Graefe accepts Winckel's suggestion, that they may be merely spaces in the submucous connective tissue resulting from œdema, injury, or hæmorrhagic effusions. Cysts provided with an epithelial lining he regards as retention cysts, due to occlusion of the orifices of vaginal glands. He accepts the evidence brought forward by Von Preuschen as to the occasional existence of glands in the vagina. He points out that there is a stage in the development of the vagina in which it is lined by cylindrical epithelium, and refers to a case reported by Dr. C. Ruge, in which that observer found a small cyst on the vaginal portion of a fœtus of four months' development. Dr. Graefe therefore puts it, that the membrane lining a vaginal cyst, in producing cylinder epithelium, is "true to its embryonic tradition." There are, however, also cases in which the interior of the cyst presents a structure identical with that of the vagina itself. Of such, our author thinks Veit's conjecture a probable explanation: viz., that they are formed out of remains of the duct of the Wolffian body. Freund has suggested that some cysts may be rudiments of the ducts of Müller; and Dr. Graefe thinks this explanation applicable to one of his cases, in which there were six cysts, arranged in a row one behind the other. Another of his cases, in which there were three cysts, but not serially arranged, he thinks may be accounted for by the combined hypotheses of Veit and Freund.

In the same number of the *Zeitschrift* we find a short paper by Dr. J. Veit, published as a kind of appendix to that of Dr. Graefe, in which is described a case of a vaginal cyst of unusual size, as large as a child's head, projecting from the vulvar orifice in such a manner as at first sight to resemble prolapsus; and above reaching to the broad ligament. Dr. Veit thinks it probably originated in the remains of the Wolffian duct.

The Pathology of Hemichorea.—An interesting case of this affection is published by M. Mabboux, in the *Revue de Médecine* for December, 1883. His patient was a young soldier, aged twenty-three, who had been for some time under treatment for melancholia with various delusions. One morning he was discovered to have hemichorea of the right side, more marked in the arm than leg; twitching of the right side of his face had been observed occasionally during the few preceding days, but no importance had been attached to it. A careful examination of the patient elicited the fact that there was neither paralysis nor anæsthesia of the affected limbs, nor was any cause found for the movements. From this time the patient rapidly grew worse, the movements became more violent, the melancholia more intense, and he died sixteen days after the hemichorea was first observed. The author on repeated occasions examined the patient, but never found paralysis or anæsthesia. On examination a blood clot was found in the left lenticulo-optic region, surrounded by a zone of softening; the hæmorrhage involved the internal capsule, but not the most posterior

[1] *Medical Times and Gazette*, 1883, Vol. I., p. 13.

portion of it, invading also the postero-external part of the optic thalamus and the tail of the corpus striatum. The mental symptoms were fully accounted for by a tolerably extensive chronic fronto-parietal meningo-encephalitis. M. Mabboux explains the absence of hemiplegia by the slight degree to which the corpus striatum and optic thalamus were involved, and the absence of anæsthesia by the fact that the most posterior portion of the internal capsule was intact. But it seems to us that too much stress ought not to be laid upon the supposed absence of hemiplegia and hemianæsthesia in this case, for accurate observation on either of these points was impossible, at any rate during the last week of the patient's life.

PROPHYLACTIC TRACHEOTOMY IN EMPHYSEMA.—Dr. H. Schmidt relates the case of a man in whom emphysema ensued some hours after his receiving a wound in the neck, and spread so rapidly, especially in the vicinity of the larynx, that suffocation become imminent. The larynx was opened below the cricoid cartilage, and as soon as a tube had been introduced (which was done with some difficulty) breathing became entirely tranquil. By the third day all traces of the emphysema had disappeared, and the wound of trachea healed by the twelfth day.—*Betz Memorabilien*, 1883, No. 7.

THE TOTAL DESTRUCTION OF HUMAN BODIES.—M. Aimée Girard having lately proposed at the Académie des Sciences the destruction of the bodies of animals dying of virulent diseases by means of sulphuric acid (as their interment does not always secure from the danger they may cause), M. Régnard resolved to try the effect of this substance on the human subject. His experiments with the bodies of new-born infants and fœtuses have been completely successful, and would no doubt be equally so if tried on the adult. To the body of an infant he adds about double its weight of the sulphuric acid of commerce, and after 24 or 30 hours of maceration, not a vestige of the body remained —the decomposition having taken place silently and without any smell. Neither the microscope nor the test-tube can detect the slightest trace of the body, beyond the presence of some fat, phosphoric acid, and nitrogen. M. Régnard points out how easily a body may be made away with by means of a substance so easily procured, and suggests that some restrictions should be placed on its sale.—*Revue Méd.*, Dec. 1.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, DECEMBER 21ST.

Dr. DUDFIELD, President, in the Chair.

[SUGGESTIONS FOR THE AMENDMENT OF THE ARTISANS' DWELLINGS ACTS.]

Dr. TRIPE read a paper on the above subject. The improvement of the dwellings of the poor, on which so much had been written and said of late, was, he held, a question essentially belonging to the Medical Officer of Health, since it was his representation alone which could set the law in action, whether for the improvement or the demolition of the premises concerned; and if, as Dr. Tripe believed, the present state of the law and the course of procedure were defective and inconvenient, it was the duty of the Society to point out the directions in which they might best be amended. First it seemed to him a serious defect that when actual demolition was the only practicable course, the work should be entrusted to different authorities proceeding under different acts according as the area were large or small, the former being cleared by the Metropolitan Board of Works at the expense of London generally, and the latter by the vestry or local board at the cost of the parish or district. He thought that wherever total demolition, whether of individual houses or of large areas, was imperative, it should be carried out by a single authority, and the cost defrayed from a single source; what the authority should be, he would leave to our legislators, provided only it were one representing the entire metropolis, while mere repairs and improvements might be left as at present to the local authorities. The question was complicated by the fact that while the inhabitants of these houses and areas did not as a rule earn more than 15*s.* a week, the dwellings now erected in their place were let at an average rent of 4*s.* 4*d.*, and therefore were taken at once by persons earning 24*s.* or more. The population for whom provision must be found was composed not only of the labouring poor, and those who picked up a living around the docks and markets, but of costermongers and street dealers, for whose donkeys and barrows accommodation must be made, with others who would not submit to the restraint imposed in model dwellings, and lastly, the filthy and destructive. The latter either still further overcrowded adjacent or similar districts, or were dispersed and perhaps improved, but the labouring poor must live in the immediate neighbourhood of their work and could not pay more than 2*s.* weekly, if so much, for which they had to be content with the wretched accommodation of a single room, or even only a part of one. Landlords had been unfairly blamed for the state of these tenements, but in fact the cost of keeping such places in repair, owing to the habits of the occupants, was so great, and defaulters were so many, that comparatively high rents were required to cover the losses incurred. The Medical Officer of Health might insist on repairs, whitewashing, &c., but the prevention of overcrowding presented great difficulties. Greater facilities for night visits, without which such overcrowding often could not be ascertained, were urgently required. Dr. Tripe would also propose that a landlord might be enabled to obtain from a magistrate an order for the speedy eviction of a tenant on the certificate of the Medical Officer of Health, and his own oath, that a room or house was unfit for human habitation from dirt, dilapidation, or overcrowding. If he neglected to avail himself of such power he would forfeit all sympathy when penalties were imposed on him on account of the condition of his property. Houses capable of being rendered habitable by simple alteration or repair should be dealt with by the local authority, and those requiring demolition by the central power, the certificates of the Medical Officer of Health and district surveyor determining the class to which they belonged; but a simplification of the present cumbrous machinery and enormous expense of compulsory purchase and arbitration was necessary. No house should be allowed to be occupied after having been legally condemned even pending an appeal. Summary powers should therefore be given for closing not only such houses, but also those where a landlord had neglected to carry out an order for repairs to be done within a certain time. Demolition, however, was but the first step; the problem was how to provide fresh dwellings in the place of those pulled down, and for the same class of persons. Neither the central nor the local authority could undertake the work without pecuniary loss to the ratepayers or suspicion of "jobbery." Public bodies, too engaged in other duties, could not exercise the requisite supervision of house property. State loans would involve needless expense in materials and construction, which would be required to be of the best, and unaided private enterprise would be insufficient to meet the need. The only alternative seemed to be the co-operation of persons willing to take shares in building houses suitable for the classes in question, and content with dividends not exceeding 3 or 3½ per cent., which was all that could be expected in London, even if the ground floors were let out as shops. These considerations, however, did not fall within the field of work of the Medical Officer of Health, and were mentioned here only to show the difficulties surrounding the question. Houses capable of improvement could be dealt with by existing acts, but increased powers must be given to the sanitary authorities, and orders should be obtainable from any two local justices, for at present there was too great delay in the issue of such by the police magistrates, a fortnight often elapsing after an application for an order at the Worship Street Court, and the hearing was again frequently adjourned from press of business. Further suggestions made by Dr. Tripe for dealing with this kind of property were as follows:—

The names and addresses of the actual owners, as well as of the legal owners, *i.e.*, persons receiving the rents, of all

houses let in lodgings or occupied by the poor, including all houses under £20 per annum, should be registered with the local authority, and such houses should be visited by an inspector at least twice a year, or oftener in case of complaint. Notices should be served on owners for all necessary improvements, and enforced under the 35th section of the Sanitary Act: the regulations under this clause being made uniform for the whole metropolis instead of being as at present left to the discretion of each local authority. If the owner neglected to comply with the order by a given day, he should be subject to a penalty of, say, 5*s.* per day during such neglect. If he after being summoned still made default, the local authority should have power to close the house or room. No appeal should be allowed against carrying out ordinary sanitary work, as repair or cleaning of premises and drains, or providing proper water supply to closets, and a separate supply for domestic use, but only in cases of structural improvements and the construction of drains. As regarded a separate water supply for drinking and domestic use, apart from that to the closets, the local authorities at present possessed no powers, though it was much to be desired that such were enforced in houses of every class. It would be well if regulations were made affecting all houses alike, prohibiting all direct connection of waste and sink pipes with the drains, and requiring in all new houses proper ventilation and interception of the house drains from the sewer, and the substitution everywhere of better forms of traps for the objectionable bell; and all persons wilfully damaging closets, traps, &c., should be summarily compelled to make good such damage.

Lastly, to determine overcrowding, some limit of cubic space per head must be fixed: this should not be too high, so as to raise the rent, or so low as to be injurious to health; 350 cubic feet for each person over twelve years, and less for children, would appear unobjectionable. If this were required, there would be no reason why several persons of different families, if of the same sex, should not occupy a single room, but indecent occupation by persons, even of the same family, ought to be put down.

Mr. WYNTER BLYTH gave an account of the work done in the parish of Marylebone under the Artisans' Dwellings Act during his tenure of office.

In the discussion that followed, Dr. EDMONDS, of St. James', Westminster, Dr. DIXON, of Bermondsey, and Mr. LOVETT, of St. Giles', as well as Mr. Greenwell, vestry clerk of Marylebone, Mr. Jones, district surveyor of St. Giles', and other gentlemen, took part. Agreeing entirely with the recommendations made by Dr. Tripe, they insisted that all improvements recoiled on the poor, whom they were intended to benefit; the cleared areas being subsequently occupied by a better class, and landlords recouping themselves for sanitary improvement of houses by raising the rents out of all proportion to the outlay.

Dr. DIXON complained of the unreasonable delay of the Metropolitan Board of Works in dealing with unhealthy areas unless their clearance would afford opportunities for the erection of warehouses or the opening up of better routes for traffic, instancing an area in his own district which he represented eight years ago, but as to which they had as yet taken no steps, the area in question having meanwhile nearly disappeared by the erection of a Board School, the falling down of some houses, &c. He expressed a strong feeling that the possession and letting of insanitary dwellings should be made penal in itself, and a fine of from 10*s.* to £5 imposed on the *agent*, since the landlord, if an absentee, might be ignorant of their state. No rent should be charged until the repairs ordered had been carried out, nor, he thought, should the rents be raised in consequence until after the expiration of a year.

Dr. EDMONDS suggested the utilisation for the class of dwellings required of the sites of the metropolitan workhouses, which might well be removed to suburban districts.

Dr. SAUNDERS, of West Herts, called attention to the Labouring Classes Lodgings Acts, of the existence of which many members were unaware, and which had remained a dead letter, though empowering local authorities, with or without State aid, to provide such dwellings, either by building them on lands purchased or leased by them, or by acquiring and improving existing tenements.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 27th December, 1883:—

Edwin Alfred Bennett, Cornwall-road, Bayswater, W.
Herbert Crowley Dent, Wood-street, Woolwich.
Alfred Cromwell Frames, Belsize-park, N.W.
Charles Leopold Hudson, Bungay, Suffolk.
Laurie Asher Lawrence, Belsize-avenue, N.W.
Edward John Lewis, Great Coram-street, W.C.
George Lewis Rugg, Stockwell Villa, Clapham-road.
William Albert Wetwan, Tavistock-place, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination:—

George Douglas Hunter, St. George's Hospital.
Edwin Charles Tatam, King's College.

THE BOWER AND KEATES' CASE.

At a Meeting of the Committee, held on Jan. 3rd, 1884, at 8.30 p.m., present Sir Wm. Jenner (in the chair), Dr. Wilson Fox, Dr. Moxon, Dr. Bright, Dr. Quain: *Resolved*, "That the Committee having obtained Subscriptions sufficient to meet the legal expenses incurred in the case of Messrs. Bower and Keates, beg to intimate that the list will be closed on Saturday the 5th inst. They will, however, be glad to receive further signatures to the Memorial.

F. A. MAHOMED, R. W. BURNET, } *Hon Secs.*

WE have received, too late for insertion in full in the present issue, the fourth list of contributions to the Indemnity Fund received up to Saturday, December 29. Since that date a still larger number of replies have, we hear, been sent in.

The following are the subscriptions above two guineas in the fourth list:—

Wilson Fox, F.R.S.	£10	10	0
W. S. Savory, F.R.C.S.	10	10	0
Sir Henry Thompson, F.R.C.S.	10	0	0
Thomas Smith, F.R.C.S.	10	0	0
Chas. A. Adey, M.D., St. Leonard's-on-Sea	5	5	0
Wm. F. Butt, Esq.	5	5	0
Ed. Clapton, M.D.	5	5	0
John E. Erichsen, F.R.C.S.	5	5	0
Barnard Holt, F.R.C.S.	5	5	0
Sir Edwin Saunders, F.R.C.S.	5	5	0
W. H. Walshe, M.D.	5	5	0
E. G. Barron, Esq., Plymouth	5	0	0
W. W. Kershaw, Esq., Surbiton	5	0	0
A. Farre, M.D.	3	3	0
Ed. Lund, F.R.C.S., Manchester	3	3	0
W. S. Playfair, M.D.	3	3	0
Wm. Priestley, M.D.	3	3	0
Septimus Sibley, F.R.C.S.	3	3	0
Edgcombe Venning, F.R.C.S.	3	3	0
John Wood, F.R.S.	3	3	0
J. M. Bright, M.D.	2	12	6
J. J. Eyre, Esq.	2	12	6

The name of Sir Andrew Clark, Bart, £10 10*s.*, was accidently omitted from the first list.

APPOINTMENTS.

GARDNER, P. H., M.R.C.S.—House Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, *vice* W. C. Beevor, M.B., resigned.

GRIFFIN, JOHN, M.B., C.M. Ed.—Senior House Surgeon to the Royal South Hants Infirmary, *vice* H. Wynter Shettle, M.R.C.S., L.R.C.P., resigned.

GUNN, CHR., M.D.—Surgeon to the Jervis Street Hospital, Dublin, *vice* J. E. Kelly, resigned.

HERON, G. A., M.D.—Physician to the City of London Hospital for Diseases of the Chest, *vice* E. L. Birkett, M.D., retired.

LIPSCOMB, A. A., M.R.C.S., L.S.A.—House Physician to the London Hospital, *vice* C. M. Chadwick, M.B.

MASON, S. R., M.D., F.R.C.S.—Master of the Coombe Hospital, Dublin, *vice* G. H. Kidd, M.D., whose term of office has expired.

MUMFORD, WILLIAM ELLIS, L.R.C.P., L.R.C.S. — Re-appointed Medical Officer of Health for the Pudsey Urban Sanitary District.

PULLIN, HARRY L., L.D.S. Eng.—House-Surgeon to the Dental Hospital of London.

SHAW, L. E., M.B.—House Surgeon to the Victoria Hospital for Children, Queen's-road, Chelsea.

WILLIAMS, J. F., M.R.C.S.—Assistant Medical Officer and Dispenser to St. Saviour's Union.

NOTES, QUERIES, AND REPLIES.

THE ROGERS TESTIMONIAL.

The following is the tenth list of subscriptions:—An Admirer of Disinterested Work (per *Lancet*), £5; J. Harris Ross, M.D., C.M., Brighton, £1 1s.; Daniel Iles, Esq., Fairford, 10s. 6d.; B. Powne, Esq., Chard, 10s. 6d.; F. J. Flower, Esq., Warminster, 10s.; Geo. Hepworth, Esq., Gloucester, 10s.; Dr. A. Robertson, Town Hospital, Glasgow, 10s.; Dr. Hugh McLean, Corbridge, 10s.; J. W. Wolfendale, Esq., Tutbury, 5s.; Jno. Russell, Esq., Neath, 5s.; Geo. W. Rhodes, Esq., Huddersfield, 5s.; Thos. Fuller, Esq., M.D., New Shoreham, 5s.; Dr. Nathan Hannah, Ashton-in-Makerfield, 5s.; Jno. Clare, Esq., Hamley, 5s.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly inform me under what authority the College of Physicians of London confer a qualification in Surgery as well as in Medicine—that is, a double qualification—on gentlemen who obtain their licence.

1st January, 1884. I am, Sir, yours, &c., ENQUIRER.

[Licentiates of the Royal College of Physicians of London are legally entitled to practise surgery as well as medicine, by the Act of Parliament 32 Hen. VIII. cap. 40, Sec. 3, which runs as follows.—"And forasmuch as the science of physic doth comprehend, include, and contain the knowledge of surgery as a special member and part of the same: therefore be it enacted that any of the said Company or Fellowship of Physicians, being able, chosen, and admitted by the said President and Fellowship of Physicians, may from time to time, as well within the City of London as elsewhere in this realm, practise and exercise the said science of Physic in all and every his members and parts, any Act, Statute, or provision made to the contrary notwithstanding."]

Dr. Kinsky, St. Petersburg.—We regret not to be able to accept your proposal.

A. E., Burton-on-Trent.—Certainly not.

Dr. Thompson, Launceston Hospital, Tasmania.—Letter and enclosure received with thanks.

John Forster, Esq., Crafers, Adelaide, South Australia.—Letter and enclosure received with thanks. Orders may be drawn on any post-office.

COMMUNICATIONS RECEIVED—

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APPOINTMENTS FOR THE WEEK.

January 5. *Saturday* (*this day*).

7. *Monday.*

ODONTOLOGICAL SOCIETY, 8 p.m. Annual General Meeting; election of Officers and Council. Casual communications by Mr. Morton Smale, Mr. Storer Bennett. Paper by Mr. Bland Sutton, "On Comparative Dental Pathology." Valedictory address by the President.

THE MEDICAL SOCIETY OF LONDON. Mr. R. Brudenell Carter will deliver the First Lettsomian Lecture, subject—"Modern Operations for Cataract."

8. *Tuesday.*

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, 8 p.m. Mr. H. H. Johnston, "On the Ethnology of the Congo and South Western Africa."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 p.m. Mr. F. Treves, "On the Direct Treatment of Spinal Caries by Operation." Dr. Radcliffe Crocker, "Three Cases of Xeroderma Pigmentosum (Kaposi)."

9. *Wednesday.*

EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square), at 8 p.m. Surgeon-General Hunter, M.D., "On the Origin of the Cholera Epidemic of 1883 in Egypt."

ROYAL MICROSCOPICAL SOCIETY (King's College), 8 p.m.

OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown. The following Papers will be read:—"Observations of Puerperal Temperatures," by Dr. E. S. Tait. "On the Corroding Ulcer of the Os Uteri," by Dr. J. Williams.

HUNTERIAN SOCIETY (7 p.m. Council), 8 p.m. Mr. Reeves, "The Treatment of Rectal Stricture, with special reference to Inguinal Colotomy." Mr. Charters J. Symonds—"The Reliable Signs of Fracture of the Neck of the Femur."

10. *Thursday.*

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8½ p.m. Living Specimens, 8 p.m. Discussion, "On Sympathetic Ophthalmitis," adjourned from last meeting. Simeon Snell, "Two Cases of Retinal Glioma, in one of which Shrinking of the Eyeball occurred without Perforation." Dr. G. A. Brown, "A Case of severe Conjunctivitis with Formation of Membrane on the Cornea, caused by Whisky thrown in the Eyes." Henry Eales, "Complete Paralysis of Convergence and Accommodation in a girl æt. 13." J. B. Story, "On the Treatment of Cystoid Cicatrix." A. Stanford Morton, "Congenital Absence of Lacrimation in a Boy." M. M. McHardy, "Some Clinical Observations which appear to Indicate a Means of Reducing the Danger from Malignant Glaucoma while Increasing the Efficacy of Iridectomy in the Treatment of Chronic Glaucoma."

11. *Friday.*

CLINICAL SOCIETY OF LONDON.—Annual General Meeting for Election of Officers and Council. Papers:—1. Dr. J. K. Fowler, "On a Case of Subcutaneous Nodules;" 2. Dr. Coxwell, "On a Case of Cortical Tumour with Unusual Frequency of Epileptiform Attacks;" 3. Dr. R. J. Lee, "On a Second Case of Creeping Eruption.

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NOTICE.

THE MEDICAL TIMES will in future be stitched.

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MODERN OPERATIONS FOR CATARARCT.

The Lettsomian Lectures Delivered at the Medical Society of London,

By R. BRUDENELL CARTER, F.R.C.S.,

Ophthalmic Surgeon to St. George's Hospital.

Lecture I.

When I first became acquainted with the honour which had been conferred upon me by the Council of the Medical Society of London, by my election to the office of Lettsomian Lecturer, my thoughts naturally ranged over the whole field of ophthalmic surgery, in search of some topic which might furnish me with sufficient material for discourse. I have been able to discover nothing of greater promise than the operative treatment of senile cataract, an affection which still levies its annual tribute of victims, and which the advances of therapeutical science have done nothing either to prevent or to cure. In the character of the malady itself, there is something which appeals with irresistible force to our most kindly sympathies. At a period of life when the physical powers are beginning to decay, when the approach of old age is making itself felt by the gradual curtailment of all pleasant activities, and when the resources afforded by vision are therefore relatively increased in value and importance, these resources are themselves threatened by a degeneration of such gradual progress that its oncoming cannot be overlooked by the sufferer, to whom it brings home the anticipation of loss of sight, in a manner so forcible as to become almost as distressing as the reality. At a period not far distant in actual time, even although, when measured by the growth of modern improvement, it may now almost be called remote, it was held as a canon of surgery that no operation for the removal of cataract should be performed so long as the state of the patient admitted of being made worse by failure; and the long misery of suspense, which this practice entailed upon numbers of people, received but a poor compensation from the completeness of the relief which, in cases of favourable issue, was eventually afforded. The operation for cataract was occasionally brilliantly successful, and was frequently followed by great improvement of sight; but yet, in a deplorable proportion of cases, it led only to complete and irremediable failure. For reasons which I will presently assign, I do not think that any of the statistics of cataract operation prior to the introduction of the ophthalmoscope can be regarded as quite trustworthy, or can be used with entire satisfaction as the basis of a comparison between former times and the present; but it was a common estimate, when I commenced the practice of ophthalmic surgery, in 1859, that about 15 per cent. of all extraction cases ended in total loss of sight, and that in about 25 per cent. more the results were imperfect, leaving only about 60 per cent. of the whole which were fully satisfactory. There can be no doubt that the average results of the present day are greatly better than this; and also that we have gained in a direction almost equally important to our patients, by being able, with safety and propriety, to operate at a much earlier period than was formerly customary, and thus not only to deal with younger and stronger people, but also to relieve these people from anxiety about the

issue before the defect of sight amounts to actual incapacity. It will be my endeavour, on this and subsequent evenings, to trace out the steps by which these improvements have been attained, and the extent to which they have been carried; and I trust to be able to establish the position that ophthalmic surgeons have not only profited by the better means of exploration and diagnosis of which they have in recent years become possessed, but also that they have laboured with zeal and success to keep pace with the advances which have been made in general surgery, and to render their treatment of long familiar conditions more successful than heretofore. The assertion that ophthalmology has been revolutionised as a branch of science is one the truth of which will be universally admitted; but the assertion that it has also been revolutionised as a branch of surgery is one which some among my hearers may regard as still requiring the support of evidence. If such there be, I will do my endeavour to satisfy them.

I have just said that none of what may be called the earlier statistics of cataract extraction appear to me to be satisfactory; and I am afraid that I must extend the remark to some of more recent date. Prior to the use of the ophthalmoscope, the diagnosis was extremely difficult and uncertain; and I have no doubt that many of the instances of reputed failure were not cases of cataract at all. If we turn to any moderately old treatise upon the subject, we shall find elaborate rules for distinguishing cataract from glaucoma, the real or supposed differences between them, but more frequently the latter, being placed in parallel columns for the purpose of ready comparison; and it is impossible but that errors must have been of frequent occurrence. Even now, I sometimes see cases in which, but for the help afforded by the opthalmoscope, I might possibly feel some doubt; and, as a matter of fact, I was once asked by a London physician, well known to many of us, to perform extraction for a lady whose lenses were as transparent as his own, and in whom the appearances by which he had been misled were produced by the character of the light-reflection from the fundus of the eye. When we come to more modern times, this source of error no longer exists, for the cloudiness or transparency of the lens can be determined with the ophthalmoscope almost by a glance; but we have been brought face to face with conditions of a totally different order. We have been in the presence of unquestionably improved methods, and in the presence also of a vast number of small modifications in points of detail, each suggested by some operator, often of very limited experience, who claims to have improved the operation of extraction by its means, who wishes what he is perhaps pleased to describe as "his" method to be called after his name, and who is almost bound to justify his claim to have effected an improvement by publishing better statistics than those of his contemporaries or of his predecessors. In England there has been little or nothing of all this; but in some countries a good deal, and the foreign constructors of statistics have well-nigh come to occupy the position of the manufacturer who adopted, in the furnace of his steam-engine, all the patented contrivances for diminishing the expenditure of fuel. He adopted the improvement which saved fifty per cent., and the improvement which saved forty per cent., and the others which saved thirty, twenty, and ten, respectively; until at last he not only ran his engine for nothing, but actually derived a handsome income from the payments made to him by coal dealers as a recompense for keeping it going. In like manner, a due regard for accuracy would certainly compel some of the originators of improved methods to confer normal vision upon three eyes for every two upon which they were called to operate. As a matter of fact, however, they hardly go so far as this; and some of the gentlemen whose exploits are chronicled in Germany or in America are so modest that they profess to fall short of a perfect result in at least one per cent. of their cases. Their scrupulous veracity reminds me of the American sportsman, who related how he had killed 999 wild ducks by a single discharge of a swivel gun; and who, when asked why he "did not say a thousand at once?" replied that he "would not peril his immortal soul for the sake of one duck!" I feel strongly that the time has come for an endeavour to explode some of the pestilent nonsense which has been talked and written on this subject. The operation of extraction has, no doubt, been greatly improved in directions which have added much to the general proportion of success. The fact remains that the patients on whom it is performed are, upon an average, 70 years old or more; and that the opacity of the lens is itself a degenerative change which indicates failure of nutrition. It will be associated, in a considerable number of instances, with failure of nutrition in other directions also, with arterial degeneration, with cardiac weakness, or with renal inadequacy; and these conditions must militate against the completion of the processes of repair which are essential to the success of any operation, be it what it may. We may be fairly content to have attained to methods of procedure which reduce the demand upon the reparative powers to the lowest point; and we cannot expect to operate without having any demand at all, or that this demand shall invariably be responded to in the right manner and at the right time. An operator who aimed at a very large percentage of success would have to select his cases with extreme care; and to do this would be to refuse relief to numbers of patients who ought to have at least the chance of obtaining it. Even when the selection had been made, he would still be exposed to a class of occurrences which can only be described as accidents, to accidents from vomiting, to accidents from intra-ocular hæmorrhage, to accidents from spasm of the recti muscles; and some of these things would now and then turn the scale against him. It is far better, in my judgment, because far more truthful and more manly, to admit that in the extraction of cataract, as in every other human undertaking, "time and chance happeneth to all." The prospects of success are sufficient to afford great encouragement to patients; the prospects of failure are certainly such as to require to be taken into account.

Among recent statistics which strike me as being reasonable and trustworthy, although in some respects very incomplete, I may mention those furnished by the annual reports of the New York Ophthalmic Institute. Taking the last two years, these reports show a total of 144 operations, by Von Graefe's method, for the extraction of senile cataract. The results are stated to have been "good" in 128 cases, or 88·9 per cent.; "moderate" in 12 cases, or 8·4 per cent.; and "failure" in 4 cases, or 2·77 per cent. The value of the figures is much diminished by the absence of any statement of the precise quality of the vision which is described as "good" or "moderate" respectively; so that cases may have been included in the former category which would by some surgeons have been relegated to the latter, and cases which were hardly distinguishable from failures may have been described as moderately successful. It is safe to assume, however, that, out of 144 eyes, 140 were left in an improved condition by the operation; and that in only four was the sight irretrievably lost.

The analogy may at first sight appear to be a somewhat strained one, but the improvements which have been effected in the extraction of cataract often remind me of those which have been effected in the operation of ovariotomy. In the latter there is, of course, a question of mortality which does not complicate the

former; but, otherwise, the resemblance between the two histories is very close indeed. In both of them the efforts of the surgeon are directed to the removal of a substance from within a closed cavity, which is liable, when wounded, to become the seat of severe inflamation; and in both an increased measure of success has been attained by the careful observation and study of all circumstances which tend towards an unfavourable issue, and by bringing these circumstances under control. In both a main feature of the improvement has been the diminished size of the external wound, together with the adoption of precautions for rendering the absolute exit of that which is taken away a process less irritating or injurious to the textures through which the removal is effected. The antiseptic methods which, according to some operators, have exerted a favourable influence upon ovariotomy are not available, or only in a very limited degree, in cataract cases; but the general conditions by which healing is promoted require to be equally borne in mind in the management of both. The details of ovariotomy are familiar to all who hear me; and I think an outline sketch of the differences between ancient and modern cataract extraction will fully bear out what I have ventured to assert with regard to the resemblance which exists between the two kinds of surgical improvement.

For about one hundred and ten years prior to 1860, the method of cataract extraction had remained substantially unchanged. It was the operation of Daviel, modified only by the introduction of Beer's triangular knife to supersede that which Daviel had originally employed; and it displaced the still earlier operation of depression or couching, in which the dislocated lens was apt to act as a foreign body, and to set up destructive inflammation after a longer or shorter period of time. In Daviel's operation, which of late years has been commonly distinguished as "flap" extraction, the knife was introduced through the cornea, on its horizontal meridian, about one millimetre in front of the corneo-scleral junction, and was carried across the anterior chamber, with the cutting edge upwards, and the plane of the blade parallel to that of the iris, to a corresponding point on the opposite side of the cornea, at which it was brought out again by a counter-puncture, and was then pushed straight on so as to divide the whole of the tissues between the wound of entrance and the wound of exit. When this was correctly done, the result was a semi-circular section of the cornea, concentric with, and about a millimetre within, its actual periphery, so that the greater part of its upper half was detached in the form of a flap; and the triangular shape of the blade, which always filled its own wound as it advanced, permitted the aqueous humour to be retained until the section was almost completed. The next step was to divide the capsule of the lens by a curved needle introduced through the wound, and the next was to press out the lens, which had first to stretch and pass through the natural pupil, and then to emerge from the eye through the corneal section. When all this had been accomplished, the lids were closed, and, as a rule, were not opened for any purpose of examination until after the lapse of from five to seven days.

Even after the introduction of anæsthetics, they were but seldom employed in flap extraction, chiefly because the large size of the external wound rendered vomiting an extremely dangerous occurrence; and one consequence of the want of them was that accidents were frequently produced by the unsteadiness of the patient. The eyeball was originally not fixed or held, but only supported against the knife by the fingers of the free hand of the surgeon; and hence the precise line of incision was in a great degree dependent upon the conduct of the patient. If he struggled, or rolled the eye upwards, both the points of puncture and of counter-puncture and the line of section were liable to be misplaced, the former being either too high or too low, too near the centre of the cornea or too near the sclerotic, and the latter either too far forward or too far back, thus either encroaching too much upon the cornea or entering upon vascular tissue beyond its margin. From the same cause there was frequent failure to retain the aqueous humour for a sufficiently long period; and, when it escaped prematurely, the iris was apt to fall over the edge of the knife, and to be wounded more or less severely. The pressure by which the cataract was extruded often caused the extrusion of more or less of the vitreous body; and many other accidents, too many indeed to enumerate, were prone to occur.

Of these several accidents there was scarcely one which was not calculated to impair, while many were calculated to destroy, the character of the result. If the patient were unsteady, one of the first consequences was likely to be a misplaced counter-puncture. When this was made too low, so that more than half of the cornea was severed from its attachment, the exit of the lens was facilitated, but at the same time the risks of loss of vitreous, and the risks of sloughing of the cornea, were increased. When the counter-puncture was made too high, or too far forward, the corneal section would probably be too small for the free exit of the lens. The operator was armed against this contingency by an apparatus of "secondary knives," "right and left-handed scissors," &c., &c., for the enlargement of the section; but the results of being compelled to have recourse to these weapons were often disastrous. When correctly performed, the operation was bloodless; but, if the iris were wounded by falling over the edge of the knife, or if the corneal section were carried too far back, so as to trench upon the corneo-scleral junction and to divide vessels, in either case the anterior chamber became filled with blood, which obscured the pupil, and rendered the subsequent steps difficult and uncertain. If the upper part of the corneal section descended too low, in consequence of the edge of the knife being directed forwards, not only was the wound likely to be too small for the exit of the lens, and thus, by calling for increased pressure, to promote the loss of vitreous, but it was also liable, in cases which otherwise terminated favourably, to occasion distortion of the corneal curvature by the contraction incidental to healing, and thus very seriously to diminish the resulting acuteness of vision. Loss of vitreous was always a grave disaster. Whenever it occurred, it lifted the iris between the lips of the wound, and was followed by iritis and closure of the pupil. In a certain proportion of such cases, more or less vision could be ultimately restored by a subsequent operation for artificial pupil; but, in the majority, a period of much suffering was the prelude to complete extinction of sight.

When all these shoals and quicksands had been avoided, when the corneal section had been correctly made, when the capsule of the lens had been divided without injury to the iris, and when the lens had been pressed out without either loss of vitreous or protrusion of the iris into the section, the risks of failure were by no means set aside. The eye was closed, the lids being generally fastened together by a strip of plaster, and it was not opened again for some days. About forty-eight hours after the operation, it was not uncommon for the lids to be a little swollen, and for a small amount of muco-purulent discharge, which rapidly assumed a purulent character, to make its appearance at their edges. These symptoms were, almost without exception, the precursors of suppuration of the eyeball, terminating, of course, in total destruction of the organ, which, after many days of acute suffering, shrivelled into a sightless button in the bottom of the

orbit. Very little was known about the origin of the changes which led to so disastrous a termination; for the rule of practice was to abstain from any examination of the eye until either fair success or total failure was sufficiently declared. It was believed that to separate the lids during the first two days would add to the risks of suppuration; and surgeons were content to learn that all was well from the absence of eyelid swelling; while, if such swelling occurred, they were fearful of aggravating the mischief, or of destroying any prospect of partial recovery, by an inspection of the inflamed tissues. The feeling was that it was better for the patient, and an addition to his chances, whether these were good or bad, that his eyelids should rest undisturbed; and, as the surgical traditions of this country place the welfare of the patient before every other consideration, undisturbed they were suffered to remain.

It is perhaps possible, however, for even a sound principle to be carried too far; and this one, in the case under consideration, was carried to the extent of depriving surgeons of all opportunity of observing the initial stages of mischief of a very grave character. Von Graefe was the first operator who departed from the accepted routine; for, being wishful to know why some eyes underwent suppuration, while others escaped, he adopted the practice of opening every eye daily, after extraction had been performed, so as to observe the first signs of suppuration and the precise locality in which they occurred. He succeeded in establishing two distinct varieties of the process, if so they may be called; or, at all events, two distinct classes of cases. In one, the initial phenomenon was iritis, commencing at the portion of iris opposite the section, at the part, in short, where the iris was most exposed to suffer bruising or compression during the exit of the lens. In cases of the other class, the initial phenomenon was necrosis of the cornea, produced by its extensive severance from the sources of its nutrition. There were, therefore, two possibilities to combat, the plastic inflammation, which, in the recently wounded eye, always led on to suppuration; and the direct necrosis which produced the same effect. As soon as Von Graefe's results were made known, and before he himself made any attempt to turn them to profitable account, Dr. Mooren, then of Crefeld, suggested that the risks of iritis from contusion might be diminished by the performance of iridectomy as a preliminary operation, to be followed by extraction after an interval of time; and he proceeded to put his suggestion into practice. His results were so excellent, that the pamphlet in which he published them was received, in Germany, with very general incredulity; insomuch that the author, referring to this incredulity in a second edition, made it a reason for publishing the name and address of every patient upon whom he had operated by his method, so that all who pleased might go and verify his statements. I may perhaps remark, in passing, that both the incredulity, and the means adopted to combat it, seem to me to indicate that the standard of scientific veracity is less high in some countries than amongst ourselves, and in some measure to justify the doubts which I have expressed concerning the trustworthiness of certain statistics with which the profession and the public have from time to time been favoured. However this may be, it soon became manifest, not only that Mooren had succeeded in diminishing the liability to iritis after extraction, but that his method, by permitting the escape of the lens through a smaller external wound, had also served, in an indirect manner, to diminish the risks of corneal suppuration. The cases on which he laid most stress were some successful operations upon very feeble and emaciated old women, in whom sloughing of the cornea would almost certainly have occurred, if they had been subjected to flap-extraction in the ordinary way.

Mooren's pamphlet reached me towards the latter end of 1862; and, in December of that year, I adopted his method, this being, I believe, the first time that it was used in England. The patient was an old man from whose right eye I had previously extracted cataract in the old-fashioned manner, and with complete success; so that I felt myself at liberty to use his left eye for what was then almost an experiment. There was a very general feeling, among those with whom I discussed the operation, that the quality of the visual result would be lowered by the iridectomy, as a consequence of the altered shape of the pupil; but I had the gratification of finding that this was not the case. The left eye made an excellent recovery; and the sight obtained from it was equal to that of the right eye, which had its iris unbroken, and its pupil central and circular. A single case could do nothing, of course, to prove the advantages of the new method of operating; but it did prove that the method was practicable, and that the result might be of the best kind. The interval between the iridectomy and the extraction, in my first case, was 14 days; but it was ultimately found better, by the general experience of operators, to prolong this interval to about six weeks.

A sufficiently extensive trial of Dr. Mooren's method may be said to have established three propositions:—1st. That the artificial coloboma iridis produced by the iridectomy afforded a safe way of exit for the lens, and that, by removing the upper part of the iris from injurious pressure, it to a great extent set aside the danger of iritis as a consequence of the final operation. 2ndly. That when the exit of the lens through the pupil was thus made easy, its ultimate exit from the eye could be effected through a smaller external wound than it had formerly been customary to employ, thus diminishing the dangers of corneal death as a consequence of the extensive severence of that membrane from the sources of its nutrition. 3rdly. That while the two principal sources of total and irretrievable failure were thus either set aside or greatly diminished, the visual results were nearly or quite as good as any which had been obtained, even in the most successful cases, from the employment of the old or prior form of the operation.

Mooren was speedily followed by other innovators, the most remarkable being Dr. Schuft, who afterwards assumed the name of Waldau, and who proposed to remove cataract by scooping it out of the eye with a little spoon, through a comparatively small wound at the corneal margin. If I remember rightly, Schuft did not propose to perform iridectomy, but to use his spoon through the natural pupil; but on this point I am not absolutely certain. He published some statistics which induced other surgeons to follow his example; and the chief thing worthy of note about his method was that it was extensively tried at the Royal London Ophthalmic Hospital, and that both Sir William Bowman and the late Mr. Critchett thought sufficiently well of it, at one time, to make endeavours to improve the form of the scoop. Schuft's scoop was a small oval spoon, with a margin all round perpendicular to its base. Sir William Bowman did away with the margin, excepting at the tip of the spoon, and there had it carried forward into a sort of point, as if to glide under or behind the lens more easily. Mr. Critchett also limited the margin to the front part of the spoon, but had it brought backwards towards the handle, in a fashion roughly resembling the toe of a slipper, or the barb of a fish-hook, as if to give it a better hold upon the further margin of the lens when in course of withdrawal. These modifications were not very important, but they were sufficient to show that English surgeons were from the first dissatisfied with the form of Waldau's instrument, although at one time prepared to admit the soundness of the principle on which it was based. Experience soon showed, however, that the

method of "outscooping" was beset by many dangers; and, after a comparatively short trial, it was abandoned even by most of those who had at first been its advocates. Coincidently with the general distrust of its value or safety came the announcement that Von Graefe was engaged upon the development of a new form of operation, from which great results were being obtained; and, after a short period, a description of this, under the name of "modified linear extraction," was given to the world. Von Graefe's plan essentially consisted in making an iridectomy the first step of the operation, instead of, as Mooren had done, a preliminary and distinct proceeding, and in placing his section in such a manner that the line of wound was entirely outside of the cornea, and in a plane which would pass through the centre of the eyeball. In his first attempts, he removed the lens by means of a small curved hook; but experience taught him to refrain, as much as might be possible, from the introduction of any form of traction instrument within the eye, and he ultimately brought out the lens by pressure alone, exercised below the cornea or upon its lower part, and assisted by a simultaneous gliding pressure upon the posterior lip of the wound with the back of a thin scoop, this gliding pressure being described by him as the "schlitten-manœuvre." Its object was not only to open the wound by holding back its posterior lip, but also to tilt the edge of the lens forwards, and so to assist it to clear all impediments to its free exit. As time went on, we heard less and less of the "schlitten-manœuvre," and more reliance came to be placed upon judiciously exercised direct pressure, made upon the lower part of the cornea by the back of a whalebone or tortoiseshell spoon, which was made to follow the issuing lens upwards as it passed through the section.

Von Graefe's section was made by puncture, counter-puncture, and division of the intervening bridge of tissue, by means of the slender straight knife now so widely known by his name. The centre of the section was just outside of the corneal margin, while its extremities were separated from this margin by an appreciable interval; and one advantage claimed for this situation was that the wound had no tendency to gape, but that its edges fell spontaneously into contact, and were placed in tissue possessing sufficient vascularity to promote rapid and easy healing. On the other hand, it was before long rendered manifest by experience that the situation, whatever might be its advantages, had also its peculiar dangers. If the section were at all unduly prolonged, or if either the puncture or the counter-puncture were placed at all too far back, the extremities came distinctly into the ciliary region, to which, indeed, they were always perilously near; and it is well known that wounds of the ciliary region have been fertile sources of sympathetic ophthalmia. Cases of this kind following upon extraction were before long reported; and I well remember, on seeking a consultation with Sir William Bowman concerning the first of these which occurred in my own practice, and on remarking to him that I had not seen one previously, his reply to the effect that he wished he could say the same. After awhile it came to be distinctly recognised, by those who had frequent opportunities of operating, that while a truly corneal section always involved more or less danger to the eye from sloughing or necrosis of that membrane, so a section entirely posterior to the cornea involved its own peculiar risks of plastic inflammation, with a possibility of extension to the sound eye. This contingency was, I need hardly say, even more serious than the other; and surgeons generally began to return towards the corneal section. It is surprising, within the narrow limits of the available space, how many differences in the precise position of the incision have been described, if not actually accomplished in practice, for it is one thing to lay down a line upon a diagram, and quite another to adhere strictly to it in the actual conditions of the operating couch. The late Mr. Critchett, with the happy practicality which was so conspicuous among his great merits, was at one time accustomed, whenever he was able to operate upon both eyes at once, to make a corneal section in one of them, and a slightly post-corneal section in the other. He held, doubtless with much correctness, that the circumstances which determined the occurrence of unfavourable results were possibly as much constitutional as local in their character, and that any individual patient was not likely to suffer, at the same time, from necrosis and from plastic inflammation. By making in one eye a section which had its chief risks on the side of necrosis, and, in the other, a section which had its chief risks on the side of plastic inflammation, he thought himself able to make almost certain of a good result in one or in the other; and, in carrying out this practice, it is manifest that he would generally be rewarded by a good result in both.

A method of operating which must not be overlooked was that of Pagenstecher, who advocated the extraction of the lens in its unbroken capsule. His plan was to make a rather large section, with a broad lance-knife, at the margin of the cornea, and an iridectomy of equal magnitude, and then, in some cases, the lens may be extruded, still within its capsule, by gentle pressure from the side of the corneal margin most remote from the incision. This only happens, manifestly, when the tenacity of the lens-capsule is greater than the strength of its attachment to the hyaloid membrane behind it; for, if the latter be the stronger, one of two results must follow. Either the hyaloid becomes ruptured at the zonule, and vitreous humour escapes before the lens, or the capsule itself yields to the pressure, and the lens escapes through the rent in the ordinary way. The latter event does not place the eye in any peril; and it permits the accomplishment of a successful ordinary extraction, the visual results of which are perhaps rendered somewhat less good than they might be by the large size and the downward position of the coloboma iridis. When the vitreous escapes, the consequences are more serious. Not unfrequently, the capsule yields also, and then the best attainable result is to leave behind in the eye more or less of the cortical substance, entangled by the more viscid vitreous body. Frequently, however, the lens shows no tendency towards emergence, but is rather inclined to recede within the eye as more and more vitreous passes away through the section. When this occurs, the surgeon has no alternative but to lift out the lens with a spoon, which the originator of the operation contrived for the purpose. Even then, the amount of vitreous lost is often considerable; and the use of a spoon or other traction instrument within the eye is a proceeding which should be avoided whenever possible. When Pagenstecher's operation succeeds well—which is chiefly in very aged people with dense and mature cataracts—its results are as good as can be desired; and the pupil, being perfectly free from every trace of opacity, displays a brilliancy of blackness which is not often witnessed as an effect of other methods. When the scoop is introduced, however, some of the cases in which success is at first obtained become afterwards obscured by a peculiar turbidity of the vitreous, which has been attributed to a chronic hyalitis; and it may be said, speaking generally, that the average of success has not been sufficient to satisfy the desires of surgeons. When employed only in selected cases—namely, in very old people whose cataracts are mature—the operation often succeeds extremely well; but even in them it has a drawback, in the shape of the very deep anæsthesia which is required in order to preserve entire passivity of the eye, since any contraction of its muscles might suffice to rupture the hyaloid, and to

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expel vitreous through the large iridectomy and external section. The reason of the greater applicability of the method to the aged seems to be that in them, while degenerative processes have loosened the attachment between the lens capsule and the hyaloid, they have at the same time produced some thickening or condensation of the capsule itself, by which it is rendered at once more easily detachable from its connections, and more resistent under pressure.

The methods introduced by Jacobson, and by one or two others of less distinction, seem hardly to call for notice in the limited time at my disposal; but it is perhaps advisable to refer briefly to a group of operators who have distinguished themselves by the advocacy and practice of methods which seem to me to set all the principles of surgery at defiance. The first of this group was Dr. Kuchler, of Darmstadt, who extracted cataract by making an incision straight across the cornea, on its horizontal meridian, and by pressing out the lens through the natural pupil. He then returned to old ways by bandaging up the eye in many folds of plaster of Paris bandage, which were not to be removed for a week. I say of this operation, that it sets all the principles of surgery at defiance, and for these reasons:—In the first place, the ultimate visual result must be dependent on the integrity of the cornea and the unaltered character of its curves; and an operation which produces a horizontal corneal wound must necessarily be followed by an opaque line, more or less broad, along the track of the section, and by a modification of curvature, incidental to the contraction which attends or follows the completion of healing. In the next place, there are few sources of greater danger to the eye than adhesions of the iris, whether to the cornea or to the lens; and in this operation, the completion of the section permits the iris to fall forwards into contact with the posterior surface of the divided cornea, and thus, almost inevitably, to become adherent to it during the process of healing. As a matter of fact, both these occurrences were frequent in Dr. Kuchler's hands, so that, besides a large proportion of patients whose eyes perished, sooner or later, from the effects of the adhesions of the iris and of recurrent iritis produced by them, he had also a large proportion in whom the corneæ were converted, by a cicatricial contraction, into distorting media, through which no good vision could ever be obtained. Notwithstanding this, and notwithstanding the tolerably obvious necessity of such issues, the operation was one which could be performed with extreme facility, and this circumstance, no doubt, led some who should have known better to adopt or to modify it. Mr. Liebreich, for example, introduced to the profession in the St. Thomas's Hospital Reports, and I believe actually performed, what he called a "new" method of cataract extraction, which was, in fact, nothing more than a slight modification of Kuchler's proceeding. The section was made across the lower part of the cornea, instead of across the horizontal meridian, and a notch was cut out of the lower margin of the pupil, to give easier exit to the lens, but these were practically the sole differences. The corneal distortion certain to be produced was more in the lower half of the membrane, and less directly opposite the pupil. It was therefore likely to be somewhat less disturbing to distant vision; but more disturbing even than Kuchler's cicatrix in the act of reading, when the gaze is usually directed downwards. Inasmuch, moreover, as the majority of operations would be performed upon aged people, in whom the general activity of the body is somewhat curtailed, and to whom the power of reading is relatively increased in value, I am disposed to think that the chief difference between Liebreich's and Kuchler's methods is not in favour of the former. As regards liability to iritis and to the formation of adhesions, I should judge them to be much upon a level. Mr. Liebreich recommended his operation by the odd arguments that it was very easy of performance, and that all the instruments required for it might be carried in the waistcoat pocket. It is of course very easy to take a lens out of the eye if you make a hole large enough, and the practical question is rather what becomes of the eye after you have done so. In these days of antiseptic surgery, moreover, the waistcoat pocket would hardly be the receptacle one would select for a knife which was intended to penetrate the anterior chamber; and the method always appeared to me to be surpassed, both as regards simplicity and as regards ease and celerity of performance, by one with which I became acquainted when Surgeon to the Royal South London Opthalmic Hospital, where we were accustomed to describe it as the "marital" method. The patients were mostly of the female sex, and were persons in whom the lens had been expelled from the eye by the smart application to the margin of the orbit of the clenched fist of a male companion. The only instruments required were such as every man carries for daily use, and no pocket at all was needed to contain them. Some of the patients made excellent recoveries; and I have heard that the same assertion might be made with regard to those who have been operated upon after the manner of Mr. Liebreich.

The general results of the work of the last twenty years may, I think, be summed up by saying that the performance of iridectomy permits the escape of the lens through a smaller section, and also, by preventing bruising of the iris, diminishes the risk of inflammation of that membrane, an occurrence which, when it followed immediately after the operation, was always destructive to the eye. The smaller corneal or corneo-sclerotic section diminishes the risk of sloughing of the cornea; and in this way, by the diminution of the two chief dangers of the old operation, a notable increase in the percentage of success has been obtained. For several years after the general principle of these results was well established, surgeons were still more or less bound by the old rule of not operating until the cataract was "mature"—that is to say, until the opacity has extended to the whole of its cortical substance. In time, however, it came to be recognised that this long delay, which had been undoubtedly called for by the results of the contrary practice, as applied to flap extraction, might to some extent be departed from; and now, to the great benefit of many persons, it is customary to operate at any earlier period than would formerly have been prudent or right. Of the steps by which this progress has been attained, and of the degree to which it has been carried, it will be my duty to speak in the next lecture.

EXTRACT FROM A CLINICAL LECTURE ON TOBACCO POISONING.

By JONATHAN HUTCHINSON, F.R.S.,
Emeritus Professor of Surgery to the London Hospital.

In this connexion let me relate to you a case which is instructive, although not so well authenticated as to detail as I could wish. I had the narrative from a medical man of great intelligence, who was himself the subject of it. He told me that some years before I saw him, he had for some months been "nearly blind." He lost reading power and, "could scarcely recognise his friends." He consulted, separately, four distinguished ophthalmic surgeons. One said that he could find nothing amiss, but gave a gloomy prognosis. Another thought the optic discs pale, and another, that all that he could see were unusually large physiological cups. Two conjured him not to smoke; a third said he might

smoke as much as he liked, and another omitted any opinion on this point. He had been smoking very heavily, and drinking very moderately. The failure had begun whilst on a visit to Germany, when he had smoked still more than usual, but a mild tobacco. In spite of the advice given he did not, as he says, in any way diminish his smoking. He took strychnia until his muscles jumped, but was no better. On one occasion, whilst at his worst, he dined with a friend and took "quite as much champagne as a respectable person ought to do." This was against his usual habit, which was to be abstemious in wine. The result was that when he reached his home after the dinner, he found, to his delight, that he could read small print. In the morning, however, his sight was as bad as ever. At length he consulted a fifth specialist, who ordered him small doses of opium. Finding some, but not all the benefit he desired, be took not small doses, but large ones, and had the good fortune to have his vision steadily improve, until he could see again almost perfectly. He had some difficulty in leaving off his opium, but gradually diminishing the dose, he at length did so. Now Dr. —— assured me that he knew of no cause for this attack of amaurosis, nor of any explanation of its cure excepting that assigned. He had been in good health all the time, and neither before nor since had he suffered from any indications of nervous exhaustion. He was not overworked, nor subjected to any mental distress. You will see that I have no accurate information as to the degree to which the amblyopia had proceeded, nor excepting from what he remembered as to the exact state of his discs. Still the case fits very closely indeed with the facts with which we have been familiar in a hundred instances of so-called tobacco-amaurosis. I have seen many a patient affected in just the same way improve immediately and permanently on leaving off smoking. But here we are assured there had been no diminution whatever at any time. Let me say here that my patient was a man clearly fond of pictorial effect and he may have unconsciously exaggerated. It may have been that he did reduce his quantity or quality, it may have been that he indulged to very great excess before the outbreak, or that there was something in the German tobacco which he got which specially poisoned him. I incline, however, rather to the belief that we have here an instance of one drug efficiently counteracting the ill-influence of the other. The opium perhaps relaxed the set of blood-vessels which the tobacco had thrown into spasm. This suggestion is in keeping with what was noted after the champagne dinner.

I have known many cases in which the subjects of smoker's amblyopia recovered perfectly although they never left off smoking; and of those who had given it up for a time, I do not know that I ever once witnessed a relapse when the habit was, as it always is, resumed. It may be thought that such facts go against the belief that tobacco has anything to do with it, and that this is made almost a certainty by such a case as that which I have just related. For myself I do not think so. Show me parallel cases occurring in those who do not smoke. It is possible even that one or two of such might be produced, but they are infinitely rare; whilst in heavy smokers, this form of transitory amaurosis is an everyday occurrence. If cases were forthcoming in which there had been no smoking, my reasoning would be this—there is probably a form of nerve disorder, perhaps a passing neuritis, perhaps only a vascular ischæmia, which may be induced by exciting causes of the precise nature of which we know nothing, but concerning which it is still in the highest degree probable that something acts as the predisposing cause. No doubt there is idiosyncrasy in the furthest background; as a middle stage the long-continued habit of smoking, and lastly, some unrecognised influence,—some depression of nervous tissue perhaps,—which determines the attack. The final exciting cause may in some cases be important, and in many it may perhaps be absent, the tobacco being itself sufficient.

You will see that these conjectures open to us a very interesting chapter in reference to the influence of drugs in general, especially of those drugs which we give over long periods of time and of those which become, with many persons, articles of ordinary use quite independent of medical prescription. We do not know but what other articles of which the chief influence is upon the nervous system may after long continuance produce injurious results. We can by no means safely assume that because a nervine stimulant is borne with impunity, or even with apparent advantage, that therefore it is wholly innocuous. It may be that its use involves the risk of very peculiar and wholly unexpected disorders. In the light of this conjecture we ought to examine as to all that is possible in reference to the different kinds of wine, tea, coffee, hops, quinine, absinthe, chamomile, and many others. I shall ask you presently to observe the facts as to the connexion between arsenic and attacks of herpes zoster, facts which are, let me say, somewhat similar to those in reference to tobacco and attacks of amblyopia. Before proceeding to this subject, I wish to take an illustration from an article which comes into the diet category. The study of drugs is often sufficiently difficult, but that of diet is surrounded by peculiar fallacies. Especially we must remember that both in prescribing and in feeding combination is often everything. A thing which might have agreed well alone, may poison when taken with something else, or conversely, that which alone would certainly have disagreed, may go all right with its proper adjunct. If you put tannin with your tobacco, a man wholly unaccustomed to smoking may take a pipe with impunity. So also camphor counteracts the effect of tobacco, and belladonna prevents the headache from opium. Not only must we keep in mind, in all questions of diet, the possible influence of some unremembered combination, but we must bear in mind, that the state of the individual varies at different times. Most of our patients are marvellously unobservant in these matters, or, rather, observe in a hurry, miss out facts, and arrive often very confidently at most erroneous impressions. Sometimes, however, we chance upon an acute and careful witness as to his own health and the things which help or hurt him. When such is found, prize him and listen in patience to his narrative. I have told you in a former lecture how in respect to "egg poisoning" it is often unsuspected by the patient, and how also in some cases it is only in certain conditions of health and under certain circumstances that eggs do disagree. Now just the same is true of tea and coffee, they will agree under certain conditions, and not under others. The man to whom tea has appeared for years to be an essential of comfortable existence, may suddenly find himself compelled to abstain from it. It may be that slowly this beverage has itself induced a change in the state of the nervous system; but it may also be that some other change in diet has taken place, or perhaps that it is mere result of advance in age.

Royal Institution of Great Britain.—The ordinary lecture season will begin next week. Mr. R Stuart Poole is to give the first of two lectures, on the "Interest and Usefulness of the Study of Coins and Medals," on Tuesday, January 15. Professor Ernst Pauer will on Thursday, January 17, give the first of a course of six lectures on the "History and Development of the Music for the Pianoforte and its Predecessors." And on Saturday, January 19, Professor Henry Morley will give the first of six lectures on "Life and Literature under Charles Ist." The Friday evening meetings begin on the 18th inst., when Professor Tyndall will give a discourse on "Rainbows."

CHOOSING ONE'S FATHER.

By ALEXANDER HARVEY, M.D.,

Consulting Physician to the Aberdeen Royal Infirmary; Emeritus Professor of Materia Medica in the University of Aberdeen, &c.

I.—Choosing one or other of two possible Fathers; and being allowed by Law the Choice of Either.

II.—Choosing two Fathers; and being by Law allowed the Choice of Both.

Strange—nay absurd—these two headings may seem. On reading, however, the details which follow, it will be seen, it is hoped, that there is substantial warrant for them—for the designations given to the cases about to be brought into view—the one, a hypothetical, yet a possible case; the other, one of actual occurrence.

I. Choosing one or other of two possible Fathers.

A man dies—is cut off suddenly, in the prime of life and in the full vigour of his powers. He leaves a young widow who has borne him two or more children, the younger or youngest being—say, sixteen months old. Losing no time in unavailing regrets, this young widow straightway marries another man—marries him, we will suppose, within two days after the death of her former husband. By-and-by she bears a child; and this child is born within such time as that by the laws of nature it may be the offspring of either husband. She may herself be unable to *say* which of the two is its father—quite unable to *conjecture* even which is the father. Physiologically, it may be impossible to determine the question. On the side of the child, there may be nothing in the way of resemblance to either husband to indicate that it was begotten by the one rather than by the other. Moreover, the circumstance of its having the features, or some of the features of the first husband would not, we know, be decisive as to the paternity.

As to this, it is now known, and indeed it is an accepted fact in physiology, that, by reason of the very intimate, albeit indirect vascular connection which obtains between the child while in the womb and its mother, and of the interchange of materials, as well effete as nutrient, continually taking place between the two through that medium, the infant may impregnate or inoculate the mother with the peculiarities, normal and abnormal, of its father. And thus it may happen, and often does happen, that in the case of a woman twice married and fruitful by both husbands, the children of the *second* marriage may, in not a few particulars, as regards both physical conformation and mental capacity and disposition, resemble the mother's *first* husband, and bear unequivocal traces of him. Many examples of this general fact are now on record. Let one suffice:—One day a young woman, residing in Edinburgh, called on the late Sir James Simpson in order professionally to consult him. He had never seen her before. Much struck he was, and not a little perplexed, at seeing in her very marked traces of the negro. On inquiry made of her, Sir James learnt that her parents were both of them white people—Scotch in fact; but that her mother, now respectably married to a butcher in Edinburgh, who was her father, had the misfortune while yet unmarried, and a servant in a gentleman's family, to be seduced by a negro, then also a servant in that family, and to have a child by him—a mulatto.[1]

This case is adduced simply in illustration of the agency of the child while *in utero* on the subsequent reproductive powers of its mother, and of the influence which that child may thus exert on the children its mother may afterwards bear to a second husband. Beyond this, the case cited has no bearing on the question at issue. If taken indeed as bearing on a question of this sort, it would be decisive of the paternity. If in the case of this young woman, there had been a question whether she were the offspring of a black or a white father, the circumstance of her not being a mulatto, but having traces only (however well marked) of negro blood, would make it clear that she was the issue of the white.

To revert now to the hypothetical case in hand, and assuming that there are no grounds of any kind, physiological, domestic, or circumstantial, for determining the real paternity of the child thus born into the world, Blackstone rules, that "it is more than ordinarily legitimate," and that on coming to the years of discretion, it may choose which of the fathers it pleases.[2] How important to it this question of choice might be, one may readily imagine.

Whether, in a case otherwise so insoluble, if legally brought in question, and especially if involving the succession to a peerage or to some thousands of broad acres, our lawyers would be content to solve it by a rule as simple as that indicated by Blackstone, may well be doubted.

II. Choosing two Fathers; and being allowed by law the free choice, not of either but of both.

Some seven-and-twenty years ago, or thereabout, a case was before the Courts at Westminster, and was eventually carried to the House of Lords, which very fairly warrants this other heading. A gentleman, who believed himself childless, and had no relatives he knew of or cared for, bequeathed by Will a sum of over one hundred thousand pounds to the town he was born in—a town not a hundred miles distant from London—in order to the founding therein of an Institute for the promotion of Art, Science, and Literature.

The Will, however, was not allowed to go unchallenged. A female, who had always been regarded, and had regarded herself, as the child of her mother's second husband, and who as such had long ago come into the possession of a handsome fortune, now stepped into Court and affirmed that she was the lawful child of her mother's first husband. The testator was this first husband. He had been married to the claimant's mother; but just after, or shortly after or before the claimant's birth, he had been divorced from her—divorced in due form, yet not with all the requisite legal formalities.

This defect, or something arising out of it, was, I believe, what gave the claimant a *locus standi* in disputing the Will. It was, as I have said, because the testator believed himself childless and heirless that he devised his estate in the way he did; and peradventure, the expression in his Will of that belief as a guiding motive with him in the disposing of his estate, may, for aught I know, or can now remember, have given strength to her position. Be this as it might—apart from her—the testator had no relatives that he knew of; and had he died intestate, the Crown was understood to be *ultimus hæres*. As such, it watched the case in its progress through the several Courts into which from time to time it passed. As we have seen, the claimant had never before considered herself the testator's child, neither had her mother, nor any one else; and, on the presumption of her being the issue of her mother's second husband, she had already inherited an ample fortune. I have no recollection now of the pleadings in the several Courts, or of the decisions pronounced; it will suffice to state that the case passed on to the House of Lords, and that on behalf of the party intended by the Will to be benefited, the services of the late Lord Westbury—then Attorney-

[1] See a series of papers by the Author "On the *Fœtus in-Utero* as inoculating the Maternal with the peculiarities of the Paternal Organism; and on the influence thereby exerted by the Male on the constitution and the reproductive powers of the Female." *Edinburgh Medical Journal* for 1859-60; also an Essay, by him, on "*A Remarkable Effect of Cross-breeding.*" Blackwood & Sons. Ed., 1851.

[2] *Commentaries.* Book I. chap. viii.

General—were secured, with a retaining fee of eight hundred guineas.

Fortunately, or unfortunately, on the eve of its being called in the Lords, the case was settled by compromise, without the question of paternity being there raised and determined. The town thought it better to get something rather than run the risk of losing all. And so it came about that the claimant was allowed—whether by my Lords, or without their leave, I cannot say, but with the consent of the Crown—to take out of the estate, or rather, out of what now remained of it, as the child of the testator, a sum little short of twenty thousand pounds. The amount that eventually came to the town for the purposes of the Institute, dwindled down from about one hundred and five thousand pounds to twenty-five or thirty thousand.

Thus possible is it in law, or by the favour of law, or at least with the concurrence of law, not only to choose one's own father, but to choose and be allowed two, and to derive very substantial benefit from both.

In choosing and being allowed the choice of *this* father, ought not the claimant to have been called on to renounce the other, and in doing so to disgorge all that she got by him? Her not being required to do this fully justifies, I humbly think, the heading given to this singular case. Nay, ought she not, in honour and in justice, to have herself arranged beforehand that, in the event of her being allowed, whether formally or informally, to be the child of her mother's first husband, and as such to take out of his estate the amount she did, she would hand over to the heir or the heirs-at-law of her mother's second husband, whom once she considered her real father, what she derived from him?

In the account now given of this second case, I stand open to correction in respect of incidental and subordinate particulars; not however as regards the substance of it.

P.S.—I have submitted what is written above to the friendly perusal of an able barrister, who has written to me as follows:—"The subject is curious, and the interest of it by no means merely abstract. I find your first doctrine is still laid down for law by Blackstone's latest editor, but he observes that that great lawyer Hargrave has questioned it. Upon your second doctrine I have some doubt whether you have used technically correct language. I should understand that the child was born after a stage in the divorce proceedings, equivalent to what is now a divorce decree *nisi*, and before the stage which would correspond to a decree absolute. If this was so, the man and woman were still at that time husband and wife, according to the judgment of Lord Chancellor Cairns, in *Norman* v. *Villars*, in 2 Ex. D. 359; consequently the child was the daughter, legally, of that man, in accordance with the principle *pater est quem nuptiæ demonstrant*. In this there would be nothing inconsistent with the fact that the child obtained property as the supposed child of someone else. *E.g.*, if the second man gave her a legacy upon the ground of a mistaken belief that she was his daughter, her title to the legacy would be good, although the belief were proved to be mistaken, unless it were proved that the belief was produced by fraud on her part. This is the rule laid down by Lord Chancellor Cottenham in *Rishton* v. *Cobb*, 5 Myl. & Cr. 145. In such a case I do not think it could correctly be said the child would take the gift as the second man's daughter; she would take as the person named by him to take, the fact that he thought her his daughter being immaterial. I have one other criticism to make—would not the Crown be said to claim the property as *bona vacantia*, if it was a sum of money, and not to claim as *ultimus hæres?* since in England there is no heir of moveable property."

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

THREE CASES OF DERMOID CYSTS IN UNUSUAL SITUATIONS.

(Under the care of Mr. HENRY MORRIS.)

Case 1.—*Dermoid Cyst in Floor of Mouth; treated by Excision of part of Cyst-wall, and plugging with Lint soaked in Iodine Liniment—Subsequently, Death from Cancer of the Œsophagus.*

(From notes by Mr. ROBERT S. BOWKER.)

THOMAS H., æt. 54, a labourer, was transferred in October, 1882, from Dr. Powell's ward to Mr. Morris, on account of a large soft swelling on the right side of his neck and cavity of the mouth. He had been admitted on the 4th of August, because of a difficulty in swallowing which began five months previously, and went on increasing. For a month prior to admission he had swallowed only fluids, as the deglutition of solid food caused pain in the throat and dorsal region of the spine, and the bolus quickly returned after appearing to lodge opposite the second piece of the sternum. There was an indurated enlarged gland just above the inner end of the left clavicle, and a second a little higher up, in front of the sterno-mastoid. Beneath the right body of the lower jaw was an elastic rounded swelling, which occupied the floor of the mouth and raised the tongue distinctly above the level of the upper edge of the teeth. A No. 14 œsophageal bougie was passed into the stomach, but met with an obstruction, easily overcome, however, about three inches from the cardiac end of the stomach. No. 18 bougie could not be made to pass this spot, which was 14½ inches from the margin of the teeth. The patient was emaciated, had never brought up blood, was rarely sick; had had syphilis fifteen years ago, and knew of no malignant disease in his family, which was a very large one, viz., five brothers and nineteen sisters; eight of whom are alive now.

Over twenty-five years ago, Mr. Campbell de Morgan had incised the sublingual cyst and let out a large quantity of creamy matter; but it soon refilled and subsequently burst spontaneously. It had been many years coming to its present size.

By October 6th, swallowing had become still more difficult, though No. 14 bougie could still be passed into the stomach. It appeared, however, that there was some obstruction about six or seven inches from the margin of the teeth, and it seemed probable that the large swelling, which filled his mouth and spread backwards to the root of the tongue, was causing some of the difficulty in deglutition. Mr. Morris accordingly incised the cyst through the mouth on October 19th, cutting out a piece of the mucous membrane and cyst-wall as large as a florin. At least from 18 to 20 ounces of a creamy yellow semi-liquid substance, containing innumerable solid masses, escaped. Its general appearance was like egg sauce with grains of sago or rice thickly sprinkled in it; it gave an alkaline reaction, and consisted largely of saline and fatty matter.

On introducing a finger into the cyst after it was emptied, it was found to extend downwards, a long way below the symphysis and lower border of the inferior maxilla, and backwards to the body of the hyoid bone (which the finger touched, except only for the cyst wall intervening) and to the angle of the lower jaw. The cavity was stuffed with lint, soaked in iodine liniment, and daily irrigated with Condy's fluid. The cyst-wall suppurated, granulations slowly formed, and the space

contracted. On Oct. 26th, at 6 p.m., the patient had a severe rigor, and his temperature went up to 104·4, but there was nothing in the state of the mouth to account for this. The next day he was feeling very well, and no further rigor or elevation of temperature occurred. By Nov. 9th, there was nothing more remaining than a broad sinus opening into the mouth near the frænum of the tongue.

Immediately, and for a long time (after the cyst was evacuated), his power of swallowing was improved, and he was altogether much comforted by the operation; but by degrees the cancer increased, and he died of asthenia on February 13th, 1883.

Dr. Fowler made an examination of his body next day and reported: "The tongue was normal; in the mid-line close to the frænum there was an opening, the size of a crow quill, leading into a cavity about as large as a hazel nut, the remains of a ranula which had been opened and stuffed."

There was a cancerous growth in the lower part of the œsophagus 3¼ long, completely encircling the tube and constricting it, though a No. 12 catheter passed easily through it. The lower end of this growth was within half an inch of the cardiac extremity of the stomach: it had invaded the bronchial glands, and was adherent to the left lung, but had not perforated into the lung tissue. The stomach was of normal size, and there were no secondary growths upon it. The glands in the root of the neck and behind the pancreas were infiltrated with cancer, and a cancerous nodule growing from behind the œsophagus on a level 2½ inches below the cricord cartilage displaced the tube to the left, considerably narrowed its calibre, and had caused ulceration of the mucous membrane at one spot. There were caseous and miliary granulations on each lung. The kidneys were granular and the spleen large, soft, and pale.

Case 2.—Dermoid Cyst containing Hair in the Floor of the Mouth—Removal through an Incision below the Jaw.

(From Notes taken by Mr. A. Kirby.)

Chas. A., æt. 23, a potman, was admitted on March 6, 1883. Two and a half years ago he first noticed a lump below the left border of the lower jaw. It was then the size of a walnut, but has been gradually and painlessly enlarging ever since. He has had no difficulty in swallowing. When a child he had an abscess under the chin, the scar of which remains.

He is a healthy-looking young man, his general health has always been good, and he knows of no cause for the recent increased growth of the swelling. There is nothing in his family history pointing to an hereditary tendency to cystic or other growth of any kind.

The left submaxillary triangle is the seat of a considerable swelling, the greatest prominence being at the apex of the space; above it is limited by the posterior two-thirds of the base of the jaw. The skin over it is quite uninvolved, and there is no enlarged gland in the vicinity.

On looking into the mouth, a slight swelling of the whole of the left side of the floor, extending further back than the angle of the jaw, is noticeable; and the tongue as it rests is higher on the left than the right side. When pressure is made on the swelling in the neck, the left side of the floor of the mouth and base of the tongue bulge upwards considerably. Fluctuation extends across the swelling, from the neck to the floor of the mouth. A little yellow fluid escaped on puncturing the swelling through the mouth.

March 7th.—An incision about 2 inches in length was made below and parallel to the base of the jaw down upon the cyst.

The submaxillary gland was covering a large portion of its surface, and the facial artery and vein crossed it obliquely. On holding these structures aside with retractors, the cyst immediately protruded through the wound, and was so loosely connected with the surrounding tissues, that a good part of the cyst-wall separated from them by simple traction and a few touches with the knife. The deeper part dipped beneath the posterior border of the mylohyoid muscle, and in that way reached the floor of the mouth and base of the tongue. The cyst had no connection with the sheath of the cervical vessels, and its firmest attachment was with the tissues beneath the mylohyoid.

The wall of the cyst was very thin; the contents were a clear yellow fluid, with small gritty particles, and from its inner surface a single long light-coloured hair was growing. It was not thickly studded with fine downy hairs, as dermoid cysts about the orbit sometimes are.

For the first three days after the operation the temperature was 101·6°–102°. On the third day there was difficulty of breathing and a constant hawking up of thick mucus, which collected about the palate and fauces; there was also very extensive œdema of the whole of the left side of the neck.

Six leeches, followed by hot lead lotion fomentations, gave him almost immediate relief.

The temperature went down the next day to 99·2°, two days after to 98°; the œdema entirely subsided in the course of nine days, and he left the hospital quite well on March 22nd.

Case 3.—Dermoid Cyst containing Bone on inner part of the Thigh.

(From Notes by the Dresser, Mr. T. D. White.)

Robt. W., æt. 10, a schoolboy, was admitted on February 3rd, 1883, with what looked very like a fatty tumour of the thigh. It was stated that rather more than a year before he had first noticed a swelling and pain just above the right knee. He was a well nourished and healthy-looking boy, with a lobulated moveable subcutaneous swelling on the inner side of the left thigh, just above the knee, about the size of a Tangerine orange.

The tumour was removed, through an incision 2½ inches long; it proved to be cystic, with semi-solid sebaceous contents, and some small fragments of bone. The walls were thin, and adhered firmly to the vastus internus and upper part of the quadriceps extensor muscle,

The wound was dressed with terebene and oil (1 in 6) on lint, and the limb fixed upon a back splint. He was discharged quite well on 27th February.

St. John Ambulance Association.—A Public Meeting to inaugurate the formation of a St. John's Ambulance Association Centre in Hamilton, Bermuda, was held on December 6. His Excellency the Governor presided, and after some opening remarks, introduced the speakers, Dr. Hudson, Sir Thomas Brassey, and Lady Brassey, who addressed the Meeting, explaining the object in view. Chief Justice Rees having moved a resolution to form a Centre, seconded by Vice-Admiral Sir J. E. Commerell, V.C., K.C.B., the Hon. W. H. Gosling then proposed as the Local Committee, three Members of the Legislative Council, three Members of the House of Assembly, the Rev. Mark James, and Dr. P. B. Tucker and Brigade-Surgeon Kidd, P.M.O., and Attorney-General Gray having also advocated the movement, the usual votes of thanks were tendered to Sir Thomas and Lady Brassey, Dr. Hudson, and His Excellency the Governor. A Meeting for a like purpose was also held, attended by Sir Thomas and Lady Brassey, Dr. Hudson, and the Chief Government Officials at Port of Spain, Trinidad, a short time previously, with a similar result.

Medical Times and Gazette.

SATURDAY, JANUARY 12, 1884.

During the past week the Societies have been very active. At the annual meeting of the Pathological Society which was held on Friday last, January 4th, the President delivered an address, an abstract of which we print in our report of the meeting. He gave a brief but interesting review of the history of the Pathological Society, and referred to the various changes that had taken place in the doctrines of inflammation during that period. The following officers and Council were elected for the present year, viz. :—President—John Whitaker Hulke, F.R.S. ; Vice-Presidents—William Henry Broadbent, M.D. ; * William Cayley, M. D. ; * George Johnson, M.D., F.R.S. ; Samuel Wilks, M.D., F.R.S. ; Sir William Bowman, Bart., F.R.S. ; John Croft ; Arthur Edward Durham ; * George Lawson ; Treasurer—* John Wood, F.R.S.—Honorary Secretaries—James Frederick Goodhart, M.D. ; * Henry Trentham Butlin ; Council—Robert Barnes, M.D. ; John Curnow, M.D. ; Frederick Akbar Mahomed, M.D. ; Joseph Frank Payne, M.D. ; George Vivian Poore, M.D. ; Frederick Thomas Roberts, M.D. ; * Seymour J. Sharkey, M.B. ; Reginald Southey, M.D. ; * Francis Charlewood Turner, M.D. ; * Samuel West, M.D. ; * Arthur E. J. Barker ; * Henry Hugh Clutton ; William Harrison Cripps ; Alban Henry G. Doran ; Alfred Pearce Gould ; Thomas Ridge Jones, M.D. ; John Langton ; R. Clement Lucas ; * Henry Morris ; Edward Nettleship. The gentlemen whose names are marked with an asterisk (*) were not on the council or did not hold the same office during the past year.

The subject of diseases of the pancreas, which Dr. Moore introduced with his three cases of pancreatic calculi, is one on which it will probably be admitted by all that our ignorance is more complete than on any other. The records of the Pathological Society are wonderfully barren in respect of affections of the pancreas. One reason for this is doubtless the great difficulty in determining on the post-mortem table whether the condition of the pancreas is normal or abnormal. The exact degree of hardness which must be considered to be beyond the limits of a healthy state is far from easy to agree upon ; and if we cannot recognise disease of the pancreas with the naked eye, it need cause no surprise that we know so little of the symptoms it produces during life. Everyone has met with cases of carcinoma of the head of the pancreas, but what do we know about syphilitic or tubercular diseases of the gland? The debate was mainly limited to cases of disease of the pancreas that had been observed in association with diabetes. Bourchardat, some years ago, laid considerable stress on this association, and Seegen found atrophy of the pancreas present in fifty per cent. of his fatal cases. Drs. Hale White, and Savage, made an interesting appendix to their former paper on holes in the brain by describing cases of the same affection in the liver, and pointing out the reasons for not considering the changes to be due to putrefaction. Dr. Samuel West detailed two interesting cases of fatal hæmoptysis dependent upon aneurysm of a branch of the pulmonary artery, and Mr. Jessett brought forward a case of multiple sarcoma of the bones of the cranium in a young child, of which not a few examples have been exhibited at the Society during the last few years.

On Monday evening, at the Medical Society, Mr. Brudenell Carter delivered the first of his Lettsomian Lectures on "Modern operations for Cataract" which appears in full in another column ; the 21st of January, and the 4th of February, being the dates fixed for the second and third lectures. The following syllabus of the series has been issued :—Lecture 1.—Interest of the Subject—Progress made in dealing with it—Unsatisfactory character of so-called "statistics"—The old "flap" extraction—its merits and dangers—v. Graefe's early examinations—Mooren's method—Schuft—v. Graefe's "modified linear extraction"—Pagenstecher's method—Corneal sections. General results. Lecture 2.—The "maturity" of cataract—How ascertained—Advantages of waiting for it—Compensating disadvantages—Varying conditions in which the lens way be found—State of the nucleus—of the cortex—Conditions which justify early operation. Methods of procedure. Lecture 3.—The accidents incidental to early operation—Risks of the preliminary iridectomy—of the ultimate extraction. The advantages and disadvantages of anæsthetics—Complications which may arise after the operation—Treatment. Summary and conclusions.

A very interesting discussion followed on the reading, before the Medical and Chirurgical Society, of a paper on the "Direct Treatment of Spinal Caries," by Mr. Treves. Believing that the gravity of spinal caries depends not so much upon any special pathological feature in the process as upon the depth at which the disease is situated, and its inaccessibility to the ordinary operative procedures applied elsewhere, Mr. Treves advocates cutting down through the loin, and so reaching the seat of the disease by a direct route. He claims that by means of such an operation the vertebræ can be readily examined, and that carious or necrosed bone can be removed, and that abscesses can be reached, evacuated, and drained while they are small, and before secondary disease or changes have occurred.

There was a full meeting, and a long debate followed. This debate may be easily summed up by saying that, with hardly an exception, the speakers were in favour of the proceeding for the treatment of abscess ; while they deprecated, for various reasons, operative interference with the carious bone. If necrosed bone were present, of course it might be removed ; but this, in the experience of all, was a rare occurrence. Mr. Treves, in his reply, gave a much-needed hint that the treatment by mechanical means might be carried too far, and that it was a mistake to think that rest alone would suffice to effect a cure in all cases.

Mr. Treves' first case was that of a young woman with urgent symptoms. He cut down through the loin, got into a large abscess cavity, came upon diseased vertebræ, and found in the centre of one of them a loose sequestrum. Such a condition belongs to the greatest of pathological rarities; unfortunately, the case was almost lost in the consideration of the important surgical proceeding, which formed the gist of the communication, although it alone was worthy of a separate mention, of careful record, and of close clinical study.

There was a large attendance both of members and of visitors on Wednesday evening, at the Epidemiological Society, to hear what Surgeon-General Hunter had to say on the cause or causes of the recent outbreak of cholera in Egypt. The paper will not appear in full until next week, and for the present our readers must be content with the brief abstract which is contained in our report of the meeting. His contention, that the disease has been endemic since 1865, and that it was roused into activity by insanitary conditions, and perhaps atmospheric influences, is one of paramount importance; but as the brief discussion that followed his paper showed, it will not be allowed to pass unchallenged. The proverbial differing of the doctors was most forcibly illustrated by that discussion, for whilst Dr. Hunter and others did not believe in the communicability of cholera, Dr. Murray and Professor de Chaumont considered that this had been established beyond all doubt; and whilst Mr. Scriven thought that Dr. Hunter's conclusions were in advance of his evidence, Sir Joseph Fayrer considered that he had amply proved his case. The adjourned discussion will take place on Wednesday, February 13th, at 8 p.m., and will, we have no doubt, prove of great interest.

The paper on the same subject, which Surgeon-General Hunter was advertised to read at the Medical Society, on the 14th instant, is postponed to March 3.

At the last meeting of the Société Française de Tempérance, Dr. Dujardin-Beaumetz read a communication on the "Treatment of Alcoholism by Strychnia" (rather a curious subject, by the way, for a mixed lay and medical audience), in which he noticed the recommendation made some time since by Dr. Luton, of Rheims, that strychnia, being now recognised as the appropriate medicinal agent for alcoholism, the Government should authorise its addition to alcoholic beverages, in order to guard against their ill effects. Dr. Dujardin-Beaumetz, however, demonstrated, as the result of his experimental investigations and of observations made on man, that, although strychnia may be advantageously used in combating the symptoms of intoxication and acute delirium caused by alcohol, it is powerless as regards the multiple alterations in different organs which are the results of the presence of alcohol in the different tissues of the economy. Strychnia, therefore, is only, at the very most, a therapeutical agent, capable of causing the disappearance or mitigation of some of the symptoms induced by the abuse of alcoholic drinks.

Dr. Somerville, of Galashiels, read a most sensible paper "On the proper Age for commencing School Life," at the Congress of the Educational Institute of Scotland, on Thursday week. He maintained that, for Scottish children generally, the age of seven was a better time for beginning education than five, which was the recognized age, or three, which those in authority were contending for. By forcing children prematurely into school, a good deal more of what was really valuable in man would be obliterated, than if they were encouraged for two or three years longer to grow as nature and natural instincts would have them. One hour a-day was quite enough for a child to be kept to lessons, but when an infant went to grant-aided schools, he must be three hours in school every day, and if he got religious instruction, that must be extra. In the case of a little girl, she must be kept in still longer to get sewing; and he was told that a little girl of five or six might be in school from nine in the morning till half-past three in the afternoon. That was perfectly monstrous, and if the object had been to ruin the health of the child, and to make it, in other respects, a poor useless creature, the means could not have been better adapted to the end. Their rigorous climate did not admit of young infants going day by day to school with impunity, during the winter especially. On the fine days he would say they ought not to go to school at all. Fine days were too precious for an infant to waste them in school; they should be spent out of doors. Dr. Somerville's contention did not meet with the unanimous assent of his hearers, more than one of whom asserted that it was better for the children to be at school than at home. But it is a sign of the times that even Scotland should begin to kick at the educational goad.

Mr. Collier, Deputy Coroner for the eastern division of the county of Middlesex, recently saw fit to hold an inquest on a child who had died of bronchitis, without having had, as he considered, proper medical attendance. The infant had, it appeared from the evidence, been taken a few days before to Guy's Hospital, where it was seen by a "Dr. Stevenson," one, we presume, of the resident officers, who on being informed of its death, did not hesitate to certify as to the cause. A local practitioner had been called in, and finding the child dead when he arrived, he very properly refused to give any certificate, but regardless of the fact that it had been so recently seen by a qualified medical man, reported the case to the coroner. Considering how prone the poor are to seek medical advice, solely to avoid "trouble" *i.e.*, an inquest, and when it is too late for any other use, we should have little fault to find with the conduct of the coroner or of the Bethnal Green practitioner; but this does not seem to have been the case, seeing that the child was taken to the hospital.

At the inquest, Mr. Collier declared that a medical man, who had seen a patient only once, had not been in attendance in the legal sense, that the certificate offered was in itself illegal, and had been illegally obtained. If this be the law, he is in duty bound to

institute proceedings against Dr. Stevenson; but setting aside the circumstances of this particular case, it is perfectly monstrous to lay it down as a general principle, that a man who has seen a patient only once during life is not competent to certify to the cause of death. A patient may be attacked with profuse hæmoptysis or hæmatemesis, with apoplexy or cardiac angina, and die within an hour, and yet not a shadow of doubt exist as to the cause. Nay, more, we think that a man would be justified in certifying to a death from profuse hæmoptysis in a phthisical patient, even if life were already extinct, since there is no form of foul play or violence, the detection of which is the aim of the coroner's enquiry, that could well simulate the appearances of such a death. In the case in question, we should think that the medical man who saw the child when alive was more competent to vouch for the existence of bronchitis than he who only saw it when dead, and did not make a post-mortem examination, but on whose evidence the coroner instructed the jury to give their verdict. With the action of the parents in obstructing the entrance of the jury, and so on, we have nothing to do.

"Curious rumours, worthy of more or less credence, are daily reaching us," says the *Overland Mail*, "from Egypt, and all, unfortunately, tend to show a condition of internal dissension and antagonism among State bodies and State officials. It is, perhaps, not difficult to understand why the late Conseil de Santé should have fallen into disrepute with the Ministers, but it is most difficult to conceive why on that account those Ministers should think fit to ignore certain recommendations that have been made to them. The work done during the late cholera epidemic by the twelve English surgeons whose services the Foreign Office placed at the disposal of the Egyptian Government, has been admitted on all sides to have been most valuable and praiseworthy; moreover, it was carried out under circumstances which required very special qualifications: tact, courage, energy, and power of organisation had to be combined with great industry and professional skill, for in many cases the introduction of sanitary reforms meant that the reformer should assume the power and position of a governor. The Conseil de Santé strongly recommended that the Order of the Medjidieh or Osmanieh should be bestowed upon these gentlemen; now it is generally reported that the Egyption Government are afraid to decorate any one recommended by the Conseil de Santé. If this be the case, it is a fact more curious than creditable, and were it not for the length of time that has elapsed since the recommendation was made, the report would be unworthy of notice. As it is we can only hope to hear it contradicted." It is to be hoped that the new Egyptian Ministry may have more courage than the old. But we suspect that if the majority of the twelve doctors had their say, they would beg the Pashas not to let so small a matter interfere with their peace of mind.

A demonstration of the micrococcus of osteo-myelitis was successfully made before the Verein für Innere Medicin in Berlin, on December 17th. The cultivated micro-organisms having been injected subcutaneously, and into the blood stream, of healthy animals, produced no result except in those cases where some injury had been inflicted on one of the bones. In these a definite osteo-myelitis was induced, from the purulent discharges of which the micrococci could be again demonstrated and cultivated.

As we briefly mentioned last week, the Statistical Report on the Health of the Navy for 1882 was issued (as usual) at the close of the year following. In the limits of this short notice, it will be sufficient to record that out of a total force of 43,475 officers and men, the deaths were 413, of which number 299 were due to disease and 114 to injury. The ratios were 6·87 per 1,000 for the former, and 2·62 for the latter, giving a total of 9·49 per 1,000, which is a decrease of 1·45 per 1,000 when compared with the preceding year. This result is a subject for congratulation, when it is remembered that the year under notice includes the returns for the war in Egypt, in which what is termed the irregular force, that is to say, the Marine Artillery and Light Infantry, took a somewhat prominent part in the land operations. It has to be noticed, that on the home station no less than 67 cases of enteric fever were recorded, of which number 29 occurred in the *Seaflower* training brig for boys, whilst laying at anchor in Dartmouth Harbour. It is surmised that two of the boys contracted the disease whilst on shore at Southsea, from which port the *Seaflower* sailed for Dartmouth, and its rapid spread is attributed to the fact that for nine days before the occurrence of the first case, exceptionally wet weather had made it necessary to keep the awnings almost constantly sloped; this had greatly interfered with the ventilation of the lower deck, which, in the *Seaflower*, depends greatly on free access of air through hatchways and windrails. So bad was the ventilation of the deck during the last three days preceding the outbreak, the surgeon in charge states, that several of the men complained of the smell at night, and headaches, and in some instances vomiting, resulted in the morning.

It would appear that the lowest sick rate during 1882 was on the South East Coast of America Station, and the highest on the China Station; at the latter, the medical officer in charge of the flag-ship considered it his duty to call attention to the doubtful character of the water supplied to Her Majesty's ships. The returns from the Mediterranean Station are much less favourable than those for the preceding year; this is, however, to be attributed, not so much to an epidemic of remittent fever at Malta as to the circumstance of that island having been constituted the base hospital for the navy, so to speak, during the Egyptian operations. The foregoing may be regarded as the salient items in the report for 1882; but before closing our remarks, we are compelled once more to deplore the results which must inevitably follow the suspension of the Contagious Diseases Acts; we are informed in the present volume, that this is the last time the tables relating to their working can be compiled in their present form, and all the reports recently

received from the places originally protected concur in their testimony as to the evil effects which have resulted from this wrong-headed piece of sensational legislation. The records of these diseases, in the next annual report published, will, unless we are greatly mistaken, astonish even those who are most prepared for unfavourable results.

During the academic year 1882–83, six hundred and seventy-two M.D. degrees were conferred in France. Not far from three-quarters of the whole number, or four hundred and sixty-five were conferred by the Paris faculty. Montpellier comes next with sixty-nine; then follow Bordeaux with forty-six, Lyons with forty-three, Nancy with twenty-one, and Lille with twenty.

We often hear the doctor's opinion of the herbalist, but it is a rarer occurrence to hear the herbalist's criticism of the doctor. A member of what we must confess may really claim to be the older profession, is awaiting his trial on the charge of administering a poisonous dose of lobelia, and causing thereby the death of one of his customers. To do him justice, the herbalist appears to have had no very definite idea of the nature of the drug he sold, nor of the advisability of moderating the dose according to the condition of the patient. At the inquest, Dr. Stevenson deposed that the deceased had probably taken as much as 28 grains of lobelia seeds, the effect of which, he stated, would much resemble that produced by swallowing a strong solution of tobacco. The herbalist did not agree to this, but when arrested declared that Dr. Stevenson knew nothing about it. He then went on to affirm that the medical science of this country is a fraud—"God made the world and supplied it with herbs for every complaint, but these fools of doctors don't know how to use them and they are enemies of mine because I do." The position of this poor herbalist, with his arrogant faith in himself, is very pathetic. His belief that there is in Nature a remedy for every disease is not unknown in the profession, but at any rate one of the first things that these "fools of doctors"—or at least the vast majority of them—learn, is to work with Nature and not against her.

Sir William Harcourt has recently addressed a letter to the Chairman of the Prisons' Commissioners, congratulating them on the highly satisfactory character of their report for the past year. He considers the progressive decrease in the death-rate of the prisons, which has now reached 7·8 per 1,000 of the prison population (showing a diminution of 2·2 per 1,000 on the mean death-rate of the last ten years, and which so lately as 1875 exceeded 14 per 1,000), to be a striking proof of the successful care which has been bestowed on the health of the prisoners; and he desires that his satisfaction may be expressed to the medical officers at these results of their efforts. "Considering that the class of persons who are placed under their care are generally those whom vice and crime have rendered unhealthy subjects, this death-rate (even taking into account the number of diseased prisoners released on the score of ill-health) must be regarded as singularly low It proves not only that the caretaking of the prisoners is satisfactory, but that the diet and discipline of the prisons are not unduly severe." We are glad to record this compliment of Sir William Harcourt's to the Medical Officers of Prisons—a body of men, whose self-denying and secluded labours are hardly sufficiently recognised by the profession and the public.

The most costly pharmaceutical preparation in the market at present, is, without doubt the ergotine, prepared by the manufacturing chemists Gehe & Co., of Dresden. It costs 200 marks a gramme, or more than 13 shillings a grain. That is about £4,550 a pound avoidupois—a price in comparison with which gold is "dirt cheap."

One of the prerequisites of satisfactory discussion is a definition of terms. People have often fallen out when they were really one at heart, and have often agreed when really at variance, because they attached different meanings to the terms they bandied about in debate. Dr. Septimus Gibbon, the Medical Officer of Health for the Holborn District, has determined that this shall not be the case, if he can help it, in the great discussion which is now agitating the metropolis as to the homes of the poor. No one henceforth shall have to ask, and ask in vain, "What is a 'rookery'?" or, "How do you define a 'slum'?" The origin of a "rookery"—Dr. Gibbon informs the *Times*, and through it the world—"is, that a house built for the use of one family is made to contain six or more families, who use the street-door passage, staircase, washhouse, water-closet, dust-bin, and other sanitary appliances in common; and in the vast majority of cases there is no deputy landlord or caretaker to see that these common and necessary appliances are kept in order and not abused. The consequence is that, under the influence of this practical communism, all tenemental houses soon degenerate into 'rookeries.' When several of the 'rookeries' are situated in close, blind, narrow courts and alleys—often *cul-de-sacs*—where they are withdrawn from the view of the general public, they constitute a 'slum.'" Dr. Gibbon's definition of "slum" brings back to one the lessons of childhood—So many families, one "rookery;" so many "rookeries," one "slum."

The *Gazette des Hôpitaux* states that in the estimate now before the Municipal Council, the expenses of the Paris hospitals and hospices for 1884, are set down at 20,233,000 frs., being 616,500 frs. higher than in 1883. In explanation of this increase, the reporter exhibits a a tabular view of the rise in the amounts and prices of the various articles of diet, and of some medicinal substances. From a detailed comparison of the years from 1865 to 1882, it is found that the population of these establishments has increased by 21 per cent., the expense of medicines by 55 per cent., and that of diet by 41 per cent. The reporter calls serious attention to the alarming increase of these figures.

Those who have read Prince Krapotkin's article on the Siberian prisons in the December number of the *Nineteenth Century* will not be surprised to hear that

the sanitary condition of these pest-houses has at last forced itself upon official attention. It is stated, in recent official medical reports, that in the prison at Tomsk, the building in which persons condemned to exile in Siberia are lodged prior to setting out in gangs on their eastward journey, there were treated during the year 1882 no fewer than 1,268 cases of typhus fever. A still larger number of prisoners suffered from attacks of dysentery and recurrent fever, while 1,311 others, mostly children, fell ill of diphtheria, small-pox, and measles. Generally speaking, every inmate of the prison suffered from one or other of the above-mentioned diseases, and many from more than one. The number of deaths was very considerable. These official statements give a singular support to Prince Krapotkin's indictment, and tend to the conviction that the terrible picture he has painted is no less accurate in its other painful details.

Professor Reichert, who for so many years held the Chair of Anatomy in Berlin, died after a short illness on December 21st, having retired from the professorial duties, in which he was succeeded by Professor Waldeyer, only a few months ago.

Several cases of adulteration of milk, by milk vendors, have lately come before the Metropolitan Magistrates, in which it would seem that a far too lenient view of the offence has been taken. In one instance 18 per cent. of water was detected, and the defendant offered the excuse that he was *short of milk*, and therefore added the water; it was also urged that he lived in a poor and thickly-populated neighbourhood. The magistrate *cautioned* the defendant, and fined him 10*s*., and 12*s*. 6*d*. costs. It is difficult to see that being short of milk is the least excuse for committing a fraud, or that the inhabitants of "poor and thickly-populated neighbourhoods," are less entitled to pure milk than others. In fact, the authorities ought to be particularly careful that the poor, who seldom have a superabundance of food, should be provided with pure milk. In another case, 25 per cent. of water had been added. In this instance the defence set up was, that the boy upset the milk and filled up his can from a horse-trough. The defendant thought that it was hard upon him that he should be held responsible. At the suggestion of the magistrate, the summons was withdrawn. If the vendors are not to be held responsible for the acts of their servants, we fear that the practice of milk adulteration will never be stamped out. It is one of the evils of sending out milk in small cans in the charge of boys and women, that adulteration can so easily be practised. There were other cases. In two, 35 per cent., in one, 30 per cent., and in another 25 per cent. of water was proved to be present, and the vendors asserted that they sold the milk in the condition in which they received it. Fines were imposed, but the magistrate advised the prosecutor, who appeared for the Greenwich Board of Works, to try and bring the offences home to men in a larger way of business. This advice may be very good, but we would urge the importance of taking every possible means to check this serious evil. If the vendors are treated with sufficient severity, they will soon find a way of obtaining pure milk; but we think it most probable that, in the majority of cases in which milk is found adulterated, the fault lies with the retail rather than with the wholesale dealer.

The conditions of the milk trade indeed are such that the temptation to adulteration is especially strong in poor neighbourhoods. In the better quarters, where the profits on the cream trade help to make up for the small returns on the sale of milk, the business is a very flourishing one, and large fashionable connections are sold for thousands of pounds. But in poorer parts the facilities and attractions of the trade are such that competition is very severe, and the temptation to adulterate is keenly felt. The milk business, in fact, has great advantages over other retail trades. Milk is an article in daily use; no stock of it has to be kept in hand, no elaborate manufacture is required, and only just enough is bought for daily requirements. There are two ways of purchasing milk—either by contract with farmers direct, who undertake to supply so many gallons of milk daily at prices varying from one shilling and eleven pence a gallon in the six months from October to April, to eighteen or nineteen pence a gallon in the summer six months, delivered at the London railway stations, from which it is fetched by the retail dealer; or else by contracts with wholesale dealers, who perhaps charge a halfpenny a gallon more, and deliver it at the door of the retailer. These wholesale men themselves have contracts with farmers in certain districts for all their milk, which is cooled artificially as soon as it comes from the cow, and is sent up to London twice daily. The quantities dealt with are enormous. One man near King's Cross receives and distributes some 2,000 barn gallons of milk in this way every day; he has a cheese factory in the Midlands, and when the supply is greater than the demand the surplus milk is sent there and converted into cheese.

LIVERPOOL MEDICAL INSTITUTION

Milk, as everyone knows, is retailed at fourpence and fivepence per quart. Cream is bought at two shillings and two-and-sixpence a quart, and sold at four shillings, four-and-sixpence, and five shillings. The price given for milk businesses varies with the locality, and the price per quart the milk is sold at. If there is much cream sold, that enhances the value of the business considerably. Their value may be reckoned roughly to be about £20 a barn gallon in a fourpenny business, and £30, £40, or £50 a barn gallon in a fivepenny. Thus, if a man retails 30 barn gallons a day at fourpence, his business may be worth £600; but on the other hand, it may be valueless, for his working expenses may swallow up all his profits. A fivepenny business of that size may be cheap at £1,000, if there is some cream with it. It will be gathered from the above facts, which have been supplied by one thoroughly conversant with the trade, that in poorer neighbourhoods the profit is not excessive and that the temptation to adulterate must be very strong. So long, indeed, as magistrates treat the offence so leniently, the temptation will exceed the fear of punishment. A systematic supervision of the milk supply, and a rigid prosecution and punishment of adulteration would no doubt ruin a large number of the smaller purveyors, but it is to be feared that that

must be one of the first conditions of a pure milk supply. The excellent effect of well-organised inspection in some provincial towns is a proof that with energy and perseverance the same could be secured in the metropolis.

Let not the unwary reader of titles be deceived. Mr. Swinburne's new poem, which appears in the *Fortnightly Review* under the heading "Post Mortem," is not concerned with any dissection other than that of the motives and character of the deceased. The author must be credited with genius for discovering a new mine of wealth in purely technical terms. What a glorious vista of future poems opens to view at once. "Amputation," "Antiseptics," "Resection," and scores of others might be instanced as probable names for future effusions. Very little ingenuity is required to sever these from their original restricted meanings, and to give them a permanent life interest in the literature of the future.

The appointment of a Professor of Pathology in the University of Cambridge will be made next May. The salary we understand will be £800 a year, and the Professor will not be allowed to engage in private practice. The University School of Medicine is now the second largest in England, having increased with amazing rapidity during the tast ten years. Intending candidates for the professorship should lose no time in preparing for the election, as the contest for so good a post is sure to be keen.

On Wednesday, November 28th last, the St. John's Ambulance Association held their inaugural meeting in Bombay. The chair was taken by Sir James Fergusson, Bart., the Governor of Bombay, and the movement has received the warm support of the leading citizens and all the medical men of the city. The association is to be congratulated upon the favourable reception of its endeavour to extend its sphere of activity and public usefulness.

A correspondent sends us the following:—"I passed a few days lately amidst the quiet stagnation of a secluded district in lively Devonshire. My head-quarters were by the sea, in a village which reckoned itself a town in the summer season, when visitors and lobsters abounded, and shrunk into a hamlet when the birds of passage had flown, and the lobster pots had been carried away by stormy seas. Scattered around 'Flinty Beach' were many little agricultural villages, slumbering in autumnal decay. But at the time of my visit vegetable decay was supplemented by animal sickness. Epidemic disease was raging everywhere! At 'Flinty-beach,' presided over by a local board, measles prevailed. In some villages where 'sanitation' was still a thing for bumpkins to jeer at, measles was supplemented by diphtheria. Disease and mortality naturally increased in proportion to the neglect of drainage and water supply, and these matters, of course, could not be remedied at a moment's notice. All that science could do was to cure the patients, if possible, and to prevent the spread of infection. The patients were well attended, but I was struck with the total neglect of all precautions to prevent the spread of the disease. At 'Flinty-beach' people sent their linen to the wash, utterly careless whether the clothes of the sick were mingled, washed, and mangled with those of the healthy or not; and housekeepers seemed supremely indifferent to the weekly bundle being brought home by a youngster with the spots of measles on his stupid face. Kind-hearted people lent books to cheer their sick neighbours, but no one dreamed of disinfecting the magazine or novel when it was returned. Penny readings brought together the families of the healthy and diseased, and the day and Sunday schools were opened as usual. The inhabitants did not believe in precautions, and certainly would have objected to pay one penny for the sake of 'upsetting' and 'new-fangled busybodies' who pretended to have faith in sanitation.

"Never did I hear mention of disinfectants. Some old lady would, indeed, sacrifice to science by refilling her bottle of smelling salts, or burning some brown paper to conceal a suspicious smell. I could not help wishing that health officers in small, out-of-the-way country places, should be encouraged to use the power they theoretically possess. Round about 'Flinty-beach' it seemed to me that medical inspectors might be scientific, if they liked, but they dared not incur the suspicion of being fussy. And yet interference becomes a positive duty at times. Why should not the necessity of using disinfectants be insisted upon? Of course, it may be asked, what disinfectants? It is perfectly clear that one chemical agent is not likely to act satisfactorily in all cases. Food, clothing books, bedroom utensils, and drains require different treatment, but the poor and uneducated cannot be expected to understand this. Even their betters are content to pin their faith upon an advertisement, and to believe in some patented disinfectant, which shall meet *all* requirements, just as Morrison's pills can cure all diseases. Few study disinfectants scientifically, and yet every chemist will sell you a nostrum in the shape of soap, liquid, or powder, warranted to purify a decaying universe, and his only warrant for his faith in what he dispenses is the rapidity of its sale. Yet, surely, the liquid that purifies the drain would play the mischief with the wash-tub, and the fumigation which would cleanse the book would scarcely sweeten the provisions in the larder? I have often thought it would be a step in the right direction if the Local Government Board would issue to the medical officers of health in lonely country districts a list of disinfectants adapted to varied needs. A circular might also be distributed when necessary, to guide people who preferred to shut the door on infection to opening it to admit the doctor." We believe that not very long ago the board did contemplate issuing some plain and simple directions, such as our correspondent recommends, and we hope that no fear of interference with the sale of "patented remedies" may prevent them from carrying out their contemplation.

"A Contented Consultant," writes to us as follows, on the subject of consultants' fees: "Whilst agreeing with you as to the importance of the subject broached by your corresponent "M. R. C. P." in your last issue, I cannot follow you in thinking that depletion of the younger consultants would do any good. The number of young consultants (so called) will, in my opinion, always be regulated by the number of hospital appointments. Very few men would make any serious endeavour to start in consulting practice in London unless already attached to a hospital, and I do not apprehend that there will ever be any considerable increase over the present numbers. I have never been able to understand why our leading men have not raised their fees as time went on and their experience became greater. There is a well-known tale about the great Dr. Radcliffe, which shows that his fee in consultation was five guineas; why should the heads of the profession charge less now than was formerly the case? But I am wandering from my point. I wish to protest against the idea that all the young men who start in practice as consultants, do so in the expectation of pecuniary success; I believe that it is their love of science which, in the first instance, prompts them to go in for hospital work; and then when they have married and set up a brass plate in a very correct (professionally speaking) neighbourhood, they find that money is more necessary to their happiness, if not their very existence, than they formerly believed. Hinc illæ lacrimæ! The remedy is simple. Let those who want to make money, avoid science; the public-house line is open to them, and is always remunerative; and let those who determine to stick to science look forward to other rewards than pecuniary ones." We publish several more letters on this subject in another column.

It is announced that the late Dr. Marion Sims has left a sparkling sketch, which will appear in the February number of *Harper's Magazine*. It is entitled "Lydia McKay and Col. Tarleton," and describes one of the most romantic episodes of the Revolution—the rescue of her imprisoned husband by the beautiful and talented Lydia.

SURGEON-GENERAL HUNTER ON THE CHOLERA IN EGYPT.

The problem which Dr. Hunter brought before the Epidemiological Society, on Wednesday evening, was rightly described by the President of the Society as one of national—it is indeed one of international—importance, and it is a satisfactory sign of the place which medical science is gaining in the public estimation, that in this one instance, at any rate, politicians should stand still until science has spoken. It is true that other events in Egypt have somewhat thrown into the shade the cholera epidemic, and the problems which it has brought up, and that there is more pressing need to stand on guard against the Mahdi than against any recurrence of last year's epidemic. The question which Dr. Hunter raises would indeed have bulked much more largely on the political horizon if the new difficulties of the Egyptian Government and of our own had not dwarfed it. For in the clash of arms, Science has more or less to follow the example of her sister Law, and hold her peace. Still the issues involved in this question of cholera are likely, unfortunately, to be of a much more lasting interest than any false prophet that for a moment holds the stage, and though a passing thing may exclude them from the politician's field of vision, Science, with her longer sight, cannot afford to take her eyes off them.

The evidence which Dr. Hunter brought forward in his able paper, to prove that cholera has been endemic in Egypt since the last recognised epidemic in 1865, divides itself under four heads. The first of these deals with the hygienic condition of the country, and the facts which Dr. Hunter communicated are such as to give rise to wonder that cholera ever ceases to be epidemic there. The second class of evidence, collected in a very few weeks, from a large number of medical authorities, all residing in Egypt and *independent of the Egyptian Government*—the latter a very important point—goes to prove that bowel disease, whether under the names of diarrhœa, cholerine, or cholera-nostras, has been very fatal and very prevalent in Egypt since 1865; and Dr. Hunter's main contention is, that under those comparatively innocent terms many cases of true Asiatic cholera lie hidden. The system of death registration in Egypt is admittedly very defective, but all the returns agree in bearing testimony to the extreme prevalence and fatality of bowel disease during the last twenty years. It is on this point—the identity of cholerine, choleriforme, and cholera-nostras with Asiatic cholera—that the discussion will necessarily turn when it is resumed at next month's meeting of the Epidemiological Society, but until Dr. Hunter's evidence can be leisurely studied it is impossible to decide whether he has successfully held his ground. The least satisfactory feature in the evidence is that it is evidence from memory, the most important records of the facts which Dr. Hunter wishes to establish having been burnt in the conflagration at Alexandria. Still, many of the names which Dr. Hunter advances as supporters of his view are those of unimpeachable witnesses. A most important part of this division of Dr. Hunter's argument is that in which he tries to show that the suggested importation of cholera from India was impossible. The facts alleged as to the fireman of the *Timor* utterly broke down on examination, for he did not arrive at Damietta until two days after the first cases of cholera appeared; and the theory that the disease was left in the country by the Indian Contingent in 1882, though held by such a great authority as Von Pettenkofer, of Munich, will hardly commend itself to those conversant with the habits of cholera. As to the other alleged channels of importation, "the nameless Bombay merchant and phantom ships," as Dr. Couvidon describes them, their most remarkable peculiarity is that no one ever saw them, and few affect to believe in them. It is in this part of his paper, the negative demonstration, that Dr. Hunter is especially strong.

The third class of evidence is that collected during the epidemic by some of the doctors sent out from England. Dr. Honman and Surgeon-Major McNally both state that their enquiries gave them very strong reason to believe that cholera had been prevalent in the

districts to which they were sent during the months preceding the outbreak at Damietta. It is true that Dr. de Castro, a physician of considerable repute, who was commissioned to report on the epidemic by the Italian Government, holds that the cases alleged to have been examples of Asiatic cholera could not have been such in reality, because they did not propagate themselves, and this view was re-asserted by Brigade Surgeon Scriven in the discussion that followed Dr. Hunter's paper. But it is a view from which Dr. Hunter himself expresses his unqualified dissent though it will no doubt be seized upon as one of the most important points for discussion. It will be probably contended that in asserting that cholerine and choleriforme are but cholera in disguise, Dr. Hunter is proving too much; and when he admits his belief that examples of cholera, under this guise, are not uncommon in the cities of Europe, and even in the British Isles it looks to those who have been brought up in the ordinary views of the English School of Medicine as though his argument more nearly approached a *reductio ad absurdum*.

On the fourth division of Dr. Hunter's evidence, that derived from meteorological statistics, we need not dwell. It is curious and interesting, and in a subsidiary degree is not without importance. The observations made by Dr. Kirker, of H. M. S. *Iris*, during the period preceding the outbreak at Damietta, present a remarkable agreement with those reported by Mr. Glaisher during three different English epidemics of cholera; and the Arabic name for the disease—"the yellow air"—shows that the coincidence of cholera epidemics with a most unusual state of the atmosphere has not been remarked only by trained observers. But the precise causal relationship of the two phenomena has yet to be determined. One other little piece of subsidiary evidence, which is perhaps more important as a testimony of the utter demoralisation of Egyptian officials than as a proof of Dr. Hunter's view, is to be found in the statement made by certain men in authority, "We all know," they said "that cholera has been constantly prevalent here generally following the cattle-plague, but we are ordered to say nothing about it." Little weight, however, can be attached to such an admission.

THE HOMES OF THE POOR.

In a recent article on the dwellings of the poor, we maintained that the grounds of the distress to which, for some reason or other, public attention has of late been more than usually given, were to be sought, not in any circumstances peculiar to the tenure of property in London, or even in England alone, but in causes of universal operation, and inseparable from our present state of society. We promised that we would endeavour to indicate some of the directions which attempts to alleviate the existing evils should take, and we hasten to redeem our promise. The great mass of the people under consideration may be roughly divided into three categories, viz.:—(1) the industrial, (2) the labouring, and (3) the vagabond classes. The first includes respectable men, whose wages enable them to pay, say, five shillings a-week, or more, for their lodgings, of decent and mostly sober habits, and capable of appreciating good sanitary surroundings. For the better accommodation of this class, an extension of agencies already in operation is amply sufficient; it is on behalf of the second class, the labouring poor, that some interference with the existing arrangements has become necessary. For everything that has been effected in the past has but served to aggravate their distress. Every time an unhealthy area is cleared, hundreds or thousands are driven to seek shelter elsewhere, for the improved dwellings which, perhaps not until after the lapse of some years, arise in the place of those demolished, are beyond their means, and are invariably taken possession of by a better class. It is to be feared that there is good grounds for the allegation that the Metropolitan Board of Works are guided in their acceptance of the schemes submitted to them by the sanitary authorities more by the eligibility of a site for the erection of warehouses, or the opportunity it affords of opening up better routes for traffic, than by the unhealthiness of the area itself; but whether that be so or not, the practical result is the same. Scarcely different are the consequences of the smaller operations carried out by the local authorities under the older Act (with which the name of Mr. Torrens is commonly associated, though in its passage through Parliament his original draft was sadly mutilated), for though the site is immediately re-covered with houses they, too, are of a better, *i.e.*, a more expensive kind, and their former occupants are driven to other equally overcrowded districts, or to create fresh ones, by the appropriation of dilapidated and decayed streets as tenement dwellings.

We do not deny that some good is effected by these clearances; fever nests are abolished, even if others are indirectly called into existence, and the rookeries of the last, or vagabond class, are in many cases broken up. This class, composed of tramps, roughs, thieves, and prostitutes of the lowest grade, who retire by day to their dens, whence they emerge at nightfall to prey on respectable citizens, would gladly remain where they are, concealed from the public gaze, and comparatively secure from the reach of the law. Physically and morally degraded, strangers to the commonest decencies of life, filthy, vicious, and destructive, they would quickly turn the freshest and fairest of model dwellings into an Augean stable, and the best thing that can be done for them, because the most unwelcome, is to chase them from place to place, and by dispersing them so far as is possible, to bring them more within the restraints of publicity and the reach of the officers of the law, at the same time lessening their power of corrupting by their example the boys and girls of the struggling but honest poor. Further than this we are not concerned with them.

The vast population constituting the labouring class earn a precarious livelihood by work requiring neither skill nor education. This class includes the thousands of porters and labourers who pick up employment, essentially casual, in the various markets, wharves, and docks, hangers-on at theatres, &c., ground labourers and the unskilled assistants in the building trades, costermongers, and street traders of all kinds. To these may be added the workers, male and female, employed

mostly in the so-called "sweating" system by others as poor as themselves, and differing only in being able to get contracts from tailors and outfitters, or in making chip or card boxes and the like, trades in which the keen competition arising out of the superabundance of labour gives the only chance in the struggle for existence to such as will take work at the lowest terms that they find can keep them from actual starvation.

Their earnings—for it is only the ground and bricklayers' labourers who can be said to have wages—never exceed eighteen or twenty shillings, and frequently not half that amount, per week; and the necessities of their employments require them to live in close proximity to their work. It is obvious that they cannot afford more than eighteenpence or half-a-crown weekly for rent; though it is a fact that they often have to pay more. And it is no less certain that with the present cost of land and materials in London, it is quite impossible to build houses of any description in which such rents shall yield the most moderate return. Whether the local authorities, public companies, or private individuals undertake to provide dwellings for the working classes, they must proceed on ordinary commercial principles, and obtain a clear dividend of 2½ to 5 per cent., according as the philanthropic or the commercial considerations predominate. If the local authorities obtained loans from the State, repayable from the rates, the cost would probably be greater than under other circumstances, from the more stringent conditions as regards materials and workmanship that Government inspectors would impose. Private charity, even after the example of George Peabody, would be powerless in the face of a yearly addition of 60,000 to the population of the metropolis, half of which at least belongs to the class in question. The only practicable resource appears to lie in the conversion of existing streets and blocks of houses into tenements, and the improvement of such as already exist; such conversion or improvement to be undertaken by the local authorities or by companies or individuals who, inspired by philanthropic rather than by merely commercial motives, will be satisfied with the smallest remunerative return. As it is, every improvement enforced by the sanitary authority recoils on the occupiers, the total sum expended by the owner being at once added to the year's rent. Such property is, as a rule, extremely profitable, the high rents exacted from honest tenants covering the losses accruing from the conduct of the unprincipled. Unlike the vagabond class, the labouring poor are not content with the existing state of their dwellings, but simply with the rent; and they dread the visit of the sanitary inspector as foreboding an addition to their already heavy burden. Besides which, the nature of their employments, in many cases, excludes these poor from existing model buildings, quite apart from the question of rent, for the habits and belongings of costermongers and the like, however respectable in their way, are incompatible with the regulations very properly enforced in such places, and gladly accepted by the more select class who people them. In these converted and improved tenements certain simple but necessary sanitary regulations and appliances should be insisted on. Cheap but efficient closets, with an adequate supply of water, should be provided. A separate constant service for drinking and domestic use, secure from wilful or accidental pollution, proper ventilation and interception of soil and waste pipes, should be insisted on, &c. As regards the dwellings themselves, a minimum space of 350 cubic feet for each adult should be enacted, and at the same time there might be some relaxation of the rule as regards the occupation of a single apartment by persons of different families if of the same sex, while indecent occupation of one room, even by members of the same family, should be strictly forbidden.

Doubts seem to be entertained by many as to the competency of local authorities to undertake such schemes, but there are Acts older than and not repealed by the Artisans' and Labourers' Dwellings Acts—viz., the Labouring Classes Lodging Houses Acts, 14 and 15 Vic. c. 34; 29 Vic. c. 30; and 30 and 31 Vic. c. 28—which give power to the authorities, with or without loans from the Public Works Loan Commissioners, to buy, lease, or otherwise acquire lands for the erection of such lodging houses, or to acquire any already existing, and to alter or improve the same, to frame bye-laws and regulations for their conduct and occupation, and, if they see fit, to sell or otherwise dispose of the property after seven years.

In one or other of these ways of rendering tenement dwellings healthy and decent, and at the same time of letting them at rents within the means of the labouring poor, lies the only solution, so far as we can see, of the problem how to provide better houses for the really poor. Questions affecting the labour market, emigration aided by the State, the extended substitution of factories, private co-operative or State-supported in place of sweating and other forms of home work, though of high interest to the social reformer, scarcely fall within our province to deal with.

THE DIRECT TREATMENT OF SPINAL CARIES.

Good service was rendered to the subject of spinal caries, by the gauntlet which Mr. Treves threw down a few evenings ago at the Medico-Chirurgical Society. "Rien n'est sacré pour un sapeur" is a saying which will shortly be applicable to our modern surgeon, in that there will soon be few regions of the body which will be safe from his prying eyes, and his all-invading knife and fingers.

Spinal caries has long been one of the most troublesome and least satisfactory of those diseases which the surgeon has to treat, not only on account of its great inaccessibility but also on account of the great extent over which it may and usually does spread. Moreover, the anatomical characters of the bones affected, viz., their sponginess and great vascularity, lend additional importance to any inflammatory process which may be set up. Expectation therefore ran high when the above paper was first announced, in which the direct treatment of spinal caries was to be advocated and backed up by the record of three cases in which the operation had been performed.

The outcome of the discussion, though of very great interest and importance, has not quite borne out what

the title of the paper first promised, viz., direct treatment of carious bone. But, as a means of examining the lumbar vertebræ, of reaching any possible necrosed and loose fragments of bone, and more especially as a means of opening, draining, and treating abscess of this region on the most approved principles, the operation promises to be of great service.

Mr. Savory, in his usual masterly style, pointed out all the dangers which would attend the *satisfactory* treatment of spinal caries, by referring to the difficulties and contrasting the treatment of tarsal caries, even since the use of Esmarch's bandage had so much facilitated this proceeding. Caries, said Mr. Savory, is not a primary condition, but is preceded by inflammatory changes; and, unless the whole of the diseased tissue could be removed, the operation might prove worse than useless. Moreover, there are other dangers which were not alluded to. In young persons, the subjects of this disease—mostly of a scrofulous or tubercular type—there is always the danger of setting up an acute tubercular process, which is rapidly fatal, either in the form of meningitis or of general tuberculosis. And lastly, the removal of carious bone will not always save life, even should the local mischief be cured, as one of the recorded cases proved.

Nevertheless, the proposed operation was carefully worked out on strictly anatomical lines, and its feasibility was demonstrated. For the removal of pus, it can hardly fail to be of the great service. The only difficulty will be to recognise pus early, and this is certainly not an easy matter. One of the speakers referred to the relative frequency of pus collections in disease of the lumbar and lumbar sacral regions, as compared with other regions of the spine, and this will, in a measure, justify an exploratory incision when the disease is situated low down and the presence of pus suspected. We shall probably not have to wait very long for further records of this operation, and can only hope that "the mania" for new operations, to which some speakers referred, will not outweigh that discretion which, in a surgeon especially, is even better than valour.

REVIEWS AND NOTICES OF BOOKS.

Dr. FOTHERGILL ON DIAGNOSIS.[1]

After perusing this last book of Dr. Fothergill's the reader will be struck with surprise at its modest dimensions, for the nature of its matter and style is such that it must have been difficult for the author to know where to stop. But exhaustion comes to every one soon or late, and Dr. Fothergill tells us, at the end, that he knows he has written voluminously, and that the time has arrived when he must take leave of his readers. His books have sold well, he further says, and brought him practice; but for the future he must confine himself to revising and enlarging the new editions their popularity demands. And then, to his many readers, as to one compact individual, he addresses the singular and final verb, *Vale!* Truly, if a mind of a somewhat inaccurate turn, a determination to create imaginary enemies for the sake of filling pages in writing them down, and a fearless indulgence in repetition, were enough to make a book a commercia success, Dr. Fothergill should have many imitators. But there is a still more valuable element than these in his method of composition, a talent which enables him to distance all rivals in his line. He has a ready pen, and to his graphic style it is not easy for many to attain. He may be said to have mastered the art of the appropriation of common-place, and to have overcome the obstacle which Horace recognised when he said—*Difficile est proprie communia dicere.* Much that he says, though but seldom new or requiring re-statement, is doubtless true; and occasionally he amuses us with his original way of putting things; but apart from these merits, this ultimate volume of Dr. Fothergill's "standard works" can claim but scanty praise.

The title of the book is grandiose enough, but it is sound and little more. In the author's interpretation of it, as gathered from the contents of the volume, it does not mean much, or rather it means too much, which comes to the same thing. The physiological factor in diagnosis is surely recognised, being almost synonymous with diagnosis itself. Are not all medical students taught physiology before practical medicine, and is not physiology indeed styled at the University of Edinburgh "the Institutes of Medicine"? But it is not unfair to say that, in Dr. Fothergill's present terminology, the physiological factor seems to stand for all methods of questioning and examining patients whatever, with the exception of the use of the stethoscope, which is apparently glorified with the exclusive appellation of the physical method.

With a magisterial air, which, if not so serious, would be almost humorous, Dr. Fothergill tells the general practitioner, whom he from time to time advises not to neglect consultation with a physician, that the use of the stethoscope is not the only method of finding out what is the matter with a patient, and that the detection of a murmur at the heart does not fully cover the investigation of heart disease. That the use of the stethoscope is the main theme of medical teaching in the metropolis, and that students are never told to examine the pulse or the tongue of their patients, seems to be a fixed idea in our author's mind. This misconception and obliviousness of the actual state of things, arising probably from his own want of connection with any medical school, may partly account for his frequent sneers at the teaching of others, and his apparent conviction that there is a higher doctrinal revelation vouchsafed to him than to those who are attached to teaching bodies. Having started with the notion that but little is taught or known about practical medicine, Dr. Fothergill proceeds easily to fill his book with a discursive account of many of the symptoms occurring in cases of derangement of the various systems of the body. The reader is treated to the very simplest fare in the way of instruction, and the frequently repeated recommendation of ordinary common sense and decent manner in dealing with patients seems very superfluous, except to a class of students whose failure to pass their examination at all would be a public benefit. In fact, Dr. Fothergill lays most stress on what is generally, with reason,

[1] The Physiological Factor in Diagnosis. By J. M. Fothergill M.D. Baillière, Tindall, and Cox, London. 8vo., pp. 253.

taken for granted: he has constantly glimpses of the obvious himself, and then gravely communicates them to his humble and trusting readers. We are not surprised to hear, for instance, that "All apex mischief is not recent when found by the doctor," and that instruments of precision come in more fittingly at the close of the examinations rather (*sic*) than at the beginning. Again, we are told that the grass-green colour of the stools of children is not always due to hydrocephalus, and in another place that prognosis rests on accurate diagnosis.

A certain tendency to run down the value of physical examination in the author's too obviously right efforts to preach that medicine should be taught as a whole, or by what he calls the "physiological" method, though especially repudiated by him, will, nevertheless, be charged against him by most who look at this book. It is not good for a student or a practitioner to be told how an amyloid liver was diagnosed by Dr. Fothergill by the mere application of the hand to the abdomen, and how a prescription for it was written at once, as an illustration of the value of previous experience. With the minimum of good in such teaching as this there is a maximum of harm: the good will be found out by individual experience; the harm will result in the substitution of mere glances and touches for systematic examination, and the parading of lucky "shots" as brilliant diagnoses. The style of this book though, as we have said, readable and graphic, is not by any means free from errors—the grammar is often slipshod, and in one page we chance on three instances of contempt of schools other than medical; for there is no justification for spelling *otoliths* as "*otolites*;" for writing the initial *o* in the Greek word for "ear" as *œ* (as appears in the word "*œthœmatoma*"); or for changing an *e* into an *i*, as in concatinatæ.

Surgical Applied Anatomy; by Fred. Treves, F.R.C.S. Cassell & Co.—The need for a good book in English upon Applied Anatomy has long been recognized, and it would have been difficult to have selected anyone better qualified than Mr. Treves to supply the want.

That a large number of students regard the study of anatomy as necessary drudgery is a trite fact; and it is impossible not to feel that this is in great measure due to the manner in which the subject is often taught—without any reference to its uses. But when the physiological ends attained by anatomical structures are pointed out, when it is shown that diagnosis by physical examination rests upon a knowledge of anatomy, and that this knowledge constitutes the basis of operative surgery, how much more attractive does this branch of the medical curriculum become? Mr. Treves' book is therefore very welcome as remedying the above defect, as far as surgery is concerned. Though intended chiefly for students preparing for their final examination in surgery, we think that it would be of great service to students in their first and second years, if read with the ordinary anatomical text-books. Whilst involving but little expenditure of time, this would show some, at least, of the uses of anatomy; would separate the important from the unimportant facts; and would invest the whole with an interest which would make "the dry bones live."

To all students, therefore, we recommend the book, feeling sure that it will yield not only knowledge, but pleasure. For it is very readably and thoughtfully written, suitably illustrated, and the chief points are impressed upon the mind by short references to striking cases.

Clinical Chemistry; by Charles Henry Ralfe, M.A., M.D. Cantab. Cassell & Co.—We have had the opportunity of examining another of the useful series of Manuals which is being published by Messrs. Cassell & Co.: the present is quite equal to its predecessors, and contains a large amount of useful information. The chief objection we should urge against it is its title, for many of the processes are of course necessarily such as could not possibly be carried out anywhere but in a well-appointed chemical laboratory, by well practised chemists, and belong rather to physiological than to clinical chemistry; written especially for practitioners, it contains all they can require, but also much more, which is a doubtful advantage. The two first chapters are devoted to a description of the organic and inorganic constituents of the body, with their chemical reactions. The following section is upon the Blood, Chyle, Lymph, and Milk. Two chapters are set apart for the Urinary and Digestive Secretions, and the final chapter deals with morbid products, such as Calculi, Dropsical and Hydatid fluids, products of degeneration, and certain morbid conditions such as Rickets, Scurvy, and Gout. As we should anticipate, it is especially the facts relating to the Urinary secretion that are most exhaustively treated, and, considering their practical importance, rightly so. The other chapters, however, are carefully thought out, and the book, having the advantage of a good index, will be found handy and useful.

ABSTRACTS AND EXTRACTS.

Antiseptics in Germany.—Dr. Lardy, on a visit to Germany, in a letter to the *Union Médicale* (December 27) furnishes some information with respect to the antiseptics now most in vogue in that country. The somewhat exorbitant prices of the Listerian dressings, and the search after a perfect antiseptic have, he says, not a little modified the practice of surgeons of late. The employment of spray is more and more abandoned, and is now only resorted to for the purpose of disinfecting the theatre before the operation. It is advantageously replaced by the frequent washing of the hands in a disinfecting solution, and by the more or less continuous irrigation of the wound and its vicinity by a 1 or 2 per cent. carbolic solution, solution of corrosive sublimate, &c., &c. The enthusiasm for carbolic acid has much abated, and in many universities its solution is only employed for the disinfecting of instruments, because it does not damage these. For other purposes that excellent disinfectant corrosive sublimate is preferred for its cheapness, and for the rapidity with which very weak solutions destroy the very spores of infecting organisms. The solutions most generally employed are 1 per 1,000 for infected wounds, 2 per 1,000 in ordinary cases, 1 per 5,000 for irrigation during the operation, and 1 per 10,000 in laparotomies, in which the object is direct injection of the peritoneal cavity. The results are excellent. In a certain proportion of cases some absorption of the agent is indicated by a slight elevation of temperature for two or three days at most, but this is very rare. The secretion of the wound is not abundant under the sublimate, and very good healing by first intention is obtained. The solution of this disinfectant has also the great advantage of not rendering the skin of the hands so rough as carbolic acid. *Chloride of zinc*, much recommended by Kocher, of Bern, also furnishes good results in a solution of 2 per 1,000, and is especially employed in washing out the peritoneal and pleural cavities, presenting as it does little danger of absorption. It is curious that Koch, of Berlin, should still deny its antiseptic value, for experience shows that he is absolutely wrong. More recently, Prof. Kocher has proposed the *subnitrate of bismuth*, the disinfecting power of which would seem to be more potent than that of iodoform, while it is exempt from the danger of the latter. For the irrigation of wounds a solution of 1 or 2 per 1,000. It may also be employed in powder, or a bismuth gauze of from 10 to 20 per cent. is easily made. Prof. Socin, of Bâle, has recently proposed *oxide of zinc*, which is preferable to bismuth only when more concentrated solutions are required. These two

last antiseptics are also employed in the form of a paste, in order to close in a hermetic fashion wounds recently sutured, and with bismuth used in this way splendid cicatrization by the first intention may be obtained. Last summer, a mixture of sugar and napthalin was used at the Strasburg Clinic, and Prof. Lücke, a great admirer of popular remedies, was full of enthusiasm for the new treatment. Iodine-water, thymol, and salicylic acid may be mentioned, although their employment has not become generalised: but, on the other hand, concentrated *tincture of iodine* has attained more and more favour as an energetic disinfectant in septic wounds, the cavities of abscesses and mortified and fetid soft parts. Iodoform is employed now more in France than in Germany, where fear of intoxication prevails. It is especially in favour, like napthalin, for small dressings at the dispensaries. For dressing wounds successive layers of bismuth paste are applied, which are covered by simple gauze that had been previously soaked for some hours or some days in a solution of carbolic acid, sublimate, or bismuth—squeezing out the liquid at the time of application. This gauze costs infinitely less than that of Lister and analogous gauzes, and furnishes quite as good results. The protective and caoutchouc have also fallen into desuetude, and the wadding is replaced by the most various materials. Nearly every clinic has its own procedure, from carbolised jute to turf, moss, sand, ashes, sawdust or powdered glass; marsh-turf, moss and sawdust are washed in abundance of water, dried and roasted at a temperature of from 100° to 100° C., and disinfected in a sublimate solution of 1 or 2 per cent. They are then dried, put into bags, and placed over the dressing in the same way as wadding.

Extra-peritoneal Peri-uterine Hæmatoma.—A recent number of the *Zeitschrift für Geburtshulfe und Gynäkologie* contains a long article bearing the above title, by Dr. A. Martin, of Berlin. This author believes that cases of the kind which the title denotes, present characters distinct enough for their separate identification. He describes four cases, in which the nature and exact seat of the disease were made certain by operative exploration. He quotes three other cases, in one of which the same diagnosis was established by operation, and in two by autopsy. From this basis, he gives the following as the characteristic features of this form of disease. First, the local signs. The uterus is very definitely displaced laterally, and generally pushed forwards as well. The tumour formed by the effusion is not in the middle line, but occupies one side only of the pelvis, so that on the opposite side the examining finger detects no abnormal signs. On examination per rectum, the lateral position of the tumour can be made out with precision, and when the posterior surface of the uterus is explored with the finger, it can be ascertained that the effusion is not situated between the uterus and rectum; in other words, that Douglas's pouch is empty. Next, the symptoms. The commencement of the illness is sudden, and marked by abdominal pain, hæmorrhage, and signs of collapse: but the symptoms characteristic of peritonitis—vomiting, distension of the belly, pyrexia—are absent. Believing that he has thus established the diagnostic signs and symptoms of this form of disease, Dr. Martin proceeds to apply his generalizations to other cases, in which the diagnosis has not been made clear by post-mortem examination, or operative exploration. He has collected from literature eleven such, and from these, together with the verified cases before mentioned, he proceeds to describe the etiology, pathogenesis, anatomy, symptomatology, differential diagnosis, prognosis, and treatment of the disease. It seems to us that all that our author has to say, that is at once important and novel, is based upon the cases in which the diagnosis was established beyond doubt: and therefore we refrain from further epitome. We may mention, however, that he regards the diagnosis between an old extra-peritoneal hæmatoma and a subserous fibroid, in the absence of a reliable history, to be quite impossible.

The Communication of Cancer by Contact.—We recently (*Medical Times and Gazette*, December 15, p. 684) quoted from a clinical lecture by Prof. Gaillard Thomas, the statement that repeated instances of cancer of the penis thus contracted are on record. In a note subsequently published, Dr. Thomas declares that in "the heat of a clinical lecture (!)" he had stated the matter far too strongly, for in point of fact he had not met with one case which he thought had so originated, and that he had not at his disposal evidence of such occurrence, either in his own practice or in that of others. Dr. Paul Mundé also, in a communication to the *New York Medical Journal*, October 27, states that never having met with such a case himself, he wrote to several obstetricians, as well as to Profs. Czerny and Billroth. None of his correspondents had met with cancer so communicated. Both Prof. Czerny and Dr. Mundé also refer to the fact that there is no instance on record of cancer of the finger having been contracted by either medical attendants or nurses from digital examinations of cancerous disease of the uterus.

Dropsy of the Amnios and Syphilitic Infection.—Dr. Dorland read a paper at the Canada Medical Association (*Canada Medical and Surgical Journal*, November), in which he narrates some cases, with the view of showing that when successive dropsies of the amnios take place, they are due to syphilitic infection, and may be warded off by submitting the mother to mercurial treatment during her next pregnancy.

Formula in Irregular Action of the Heart.—In a discussion on heart-disease at the Boston Society for Medical Improvement, Prof. Bowditch said that he had found the Galloway formula of great service in relieving even serious cardiac affections. Pulv. digital, gr. x; pulv. colchic. sem, gr. xx; sodæ bicarb., gr. xxx; m. and divide in pil. xx. One of these should be taken three or four times daily at first, reducing the number subsequently until one is taken at bedtime.—*New York Med. Record*, November 24.

Ligature of the Axillary Artery.—Dr. Fenwick, at the Medico-Chirurgical Society of Montreal (*Canada Medical and Surgical Journal*, November), related an interesting case of Traumatic Injury to the Axillary Artery after Fracture of the Surgical Neck of the Humerus, in which the above operation was successfully performed as an alternative to amputation at the shoulder joint, the conversion of a simple into a compound fracture being rendered less dangerous by fully carrying out antiseptic treatment. The radial pulse returned 45 hours after the ligature had been applied.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Friday, January 4, 1884.

J. W. Hulke, F.R.S., President, in the Chair.

Annual Meeting.

The Secretary (Mr. Henry Morris) read the report of the Council for the past year, which revealed a satisfactory state of affairs. The number of members had increased to 669. The death list of the past year included the names of Drs. G. H. Evans and C. Hilton Fagge, and Messrs. Nathaniel Montefiore, Jardine Murray, and Richard Phillips. Dr. Samuel Wilks had been made a trustee of the Society in place of the late Dr. Peacock. The Council referred to the debate on Diabetes which had been held during the past session, and to the report by the Committee specially appointed to examine microscopical sections of the brain and spinal cord in that disease. The Council referred with gratification to the prosperity of the Society financially, the expenses for the year having amounted to 560*l.* and the income to 626*l.* Reference was also made to the very great services rendered the Society by Mr. Wheatley. In conclusion, the report alluded to some recent changes that

had been introduced in the mode of conducting the meetings, and hinted that further steps would yet be taken in the same direction.

Mr. LAWSON proposed the adoption of the report. This was seconded by Mr. BARKER, and carried.

Dr. BURNEY YEO also proposed, and Mr. DURHAM seconded, a vote of thanks to the retiring members of Council; this was responded to by Mr. R. W. PARKER. Dr. SIDNEY COUPLAND proposed, and Mr. TREVES seconded, a vote of thanks to the other retiring officers, viz., Dr. GEORGE JOHNSON, F.R.S., and Mr. HENRY MORRIS, to which the latter gentleman briefly replied.

The PRESIDENT then said, that at the last Annual Meeting he had been unable to deliver an address, for the very good reason which he then gave. He thought the present time opportune to briefly review the career of the Pathological Society. Founded in 1849 with 93 original Members, its numbers soon increased to 130 at the end of the first year. From that time the numbers had grown almost steadily until the present, when they reached nearly 700. Of the original Members, 19 were surviving, including the first President, Dr. C. J. B. Williams. The "Honorary Members" were founded in 1847, the following being the original list, viz.: Andral, Cruveilhier, Vogel, Otto, Henle, Rokitansky, Allison, and Stokes; these had all long passed away, but by their works had left an abundant fruit to their successors. He (Mr. Hulke) had joined the Society thirty years previously, during the presidency of Mr. James Moncrieff Arnott, and he well recollected the interest with which he listened to the speeches of the older members. The original aim of the Society was more humble than at the present time, as shown in the following law: "That in the remarks made, in reference to specimens exhibited, all abstract points shall be as far as possible avoided." The original founders of the Society were practising physicians and surgeons, encouraged by the advances then being made in "General Anatomy," to seek to know more of the minute changes taking place in pathological processes. Therefore they rightly at first sought after facts only; but it was natural that, in course of time, they should go further than this. No one, having studied the clinical manifestations of inflammation, could help investigating its real nature and causes. The knowledge of the course and minute anatomy of cancers or fibrous tumours of necessity led to the desire to know what made the one malignant, the other innocent. The appearance, in 1858, of Virchow's Cellular Pathology, gave an impetus to the study of the cell as the starting point of pathological processes, which it had not attained to before. This was ultimately (in 1867) followed by the appointment of a committee on morbid growths, who were "to ascertain if any and what relation exists between anatomical structure, and those clinical features ordinarily regarded as malignant." This committee, as was well known, had now become a permanent committee of reference. About this time had sprung up the doctrine of diapedesis, *i.e.*, of the escape through the walls of the blood-vessels of the white blood corpuscles. He (Mr. Hulke) had always had some misgivings about entirely accepting this theory—one difficulty was the great obstacles which they (*i.e.*, the leucocytes) must sometimes encounter and surmount—another, the extraordinary change of property they sometimes underwent; he instanced, especially, erysipelas and suppuration occurring in the eyeball in the course of pyæmia. He thought that an admixture of the two modes of origin afforded the best explanation of the changes. Hueter's discovery of the *schizmoycetes* in pus corpuscles, afforded the best solution of the conversion of a leucocyte into a pus corpuscle. During the present decade had arisen a most important doctrine, admirably brought forward by Sir Joseph Lister, that inflammatory changes originated and were maintained under the influence of living agents, inseparably connected with the processes of putrefaction, a doctrine which had been tersely put by the late Professor Hueter, "without schizomycetes no sepsis, without sepsis no inflammation." Turning to plant life, he thought a rich mine was open to those who had the leisure to work it. Mr. Hulke in conclusion, alluded to some of the work done by committees of the Society, and spoke of the great store of well-observed facts contained in the Society's Transactions.

Dr. DUFFIN proposed, and Mr. LAWSON, seconded a vote of thanks to the President for his very interesting address. This was carried by acclamation, and the President briefly replied.

The result of the ballot for officers will be found in another part of the paper.

Three cases of Calculus of the Pancreatic Duct.

Dr. NORMAN MOORE described the above as follows:—1. A pancreas with a dilated duct containing numerous irregular calculi of carbonate of lime. The duct was most dilated near the head; there were stones in all parts of it, but it was nowhere completely closed. The patient was a man aged 40, who died of diabetes. The bile duct was pervious and there was never any jaundice. 2. A pancreas with its main duct slightly dilated and containing a calculus of irregular shape, around which there was a large abscess in the head of the gland. This abscess pressed upon the orifice of the bile duct sufficiently to produce great distension of the gall bladder. The patient was a man, æt. 43, who died in St. Bartholomew's Hospital from an attack of pleurisy following gouty symptoms. 3. A pancreas with great dilatation of the duct throughout its length. Near the orifice the duct was blocked by a small calculus of irregular shape. The whole gland was very hard, and to the naked eye showed a great increase of connective tissue. The papilla in the duodenum was enlarged, and the hardened tissue of the pancreas had constricted the bile duct so as to cause complete obstruction. The liver was of a deep green colour, intensely hard, with a general dilatation of its ducts, which everywhere contained watery bile, and bile gravel. The glands in the hilum of the liver showed no new growth, and a careful search showed none anywhere in the body. Sections of the pancreas under the microscope revealed an extensive increase of connective tissue, many bands of old growth traversed the gland, and there were patches of the nuclei of a more recent connective tissue growth. Some normal acini were visible, but most of the gland cells were more or less atrophied. No cells like those of the acini were to be found beyond their proper limits, nor were there any other signs of carcinomatous growth. The morbid change was of the same kind as that found in the liver of cirrhosis. Dr. Wickham Legg had shown that dilatation of the hepatic ducts produced an increase of connective tissue throughout the liver. In this pancreas a gradual dilatation of its ducts due to occlusion of its main duct by a calculus was probably the cause of the connective tissue growth throughout the gland. Cirrhosis of the pancreas as a result of calculus had not been described before. The patient was a man aged 64, who was admitted into St. Bartholomew's Hospital in July, 1883, and died in October. He had been ill for a month, and jaundiced for three days before his admission into the Hospital. The liver was not then enlarged, but on August 13th, was distinctly increased in size. During his illness the patient had many attacks of vomiting but no colic. The speaker had exhibited to the Society, in 1882, two cases

of abscess of the pancreas, the present was the only one which had been met with at the Hospital since then. In the three cases shown that evening there had been jaundice in only one, the last, and colic in none, but in all three attacks of vomiting were noticeable clinical features.

Dr. WILKS asked if Dr. Moore attributed the diabetes in his first patient to the pancreatic affection, and reminded the Society that at the commencement of the debate on diabetes, he had mentioned the subject which had since then been dealt with by Dr. Lancereaux in a separate treatise.

Dr. BURNEY YEO asked if disease of the pancreas had been suspected during life in any of the cases.

Mr. HENRY MORRIS had seen pancreatic calculi associated with calculi in the mesentery. Dr. Johnson had put together all the recorded cases in the Journal of Medical Sciences.

Dr. HADDEN had recently found a pancreatic calculus in a case of diabetes.

Dr. MAHOMED had twice found diabetes associated with pancreatic disease, one was a case of lipæmia, the blood clots being of a raspberry cream colour.

Dr. GOODHART mentioned a case of fatty degeneration of the pancreas which he had seen associated with diabetes.

Dr. HALE WHITE had examined the records at Guy's Hospital, and found that in three or four cases of diabetes it was stated that the pancreas was wasted or undergoing fatty degeneration.

THE PRESIDENT observed that the discussion had brought to light more facts in regard to the state of the pancreas in diabetes than the debate on that subject had succeeded in doing.

Dr. NORMAN MOORE, in reply, spoke of the difficulty about being certain post-mortem that the pancreas was diseased. The diagnosis was very difficult; perhaps repeated vomiting without evident cause was a sign of some value. He had not seen any case quite resembling what Mr. Morris had spoken of.

Medullary Sarcoma of Skull in a Child.

Mr. F. B. JESSETT exhibited this specimen, taken from the body of a child, æt. 9 months. A small lump had been noticed on the right temple one month before she came under observation; this had grown rapidly, and when the child was first seen was the size of a chestnut, somewhat tense and semi-elastic, the veins over it were very much enlarged. The child's father and his sister were the subjects of multiple lipomata. There was a history of phthisis on the mother's side. No history of any blow obtained. The tumour rapidly grew, and was punctured, but only bloody serum was obtained; a second tumour appeared and grew into the first, proptosis of the right eye gradually came on. Death, preceded by convulsions, took place five weeks from the onset. The tumour involved the parietal bone, and the temporal and malar bones, the zygoma and the roof of the orbit; a similar mass was found on the inner side of the left parietal bone, bound down by the dura mater, the right hemisphere of the brain was much compressed and showed a considerable depression. The tumour was soft, very vascular, reddish-purple, with fibrous bands passing though it. No secondary growths in brain or any of the viscera; the lymphatic glands were not affected. The only cerebral symptom during life had been frequent sighing. He believed the growth had started in the substance of the parietal bone, and grown outwardly and inwardly. The history of benign growths on the father's side was a point of great interest.

The President believed that many of these growths originated in the pia or dura mater, and spread thence to affect the bones of the skull. The exemption from cerebral symptoms was a fact with which everyone was familiar.

Mr. TREVES considered the case to be one of sarcoma commencing in the meninges.

Mr. LAWSON quoted a case from the Ophthalmic Reports, where an osteo-sarcoma caused proptosis, and led to the removal of the eye. After death the new growth was found to have invaded the cavity of the cranium far more than the orbit.

Cystic Degeneration of the Liver.

Dr. HALE WHITE read a Paper, communicated by himself and Dr. Savage, on the above subject. They reminded the Society that last year, when they showed specimens of the various forms of holes in the brain, there was one variety in which the change in the brain was part of a general formation of small cavities in the different organs of the body. It was urged at the time, in opposition to this view, that the holes were due to post-mortem decomposition, for in the liver a spongy condition from this cause was well known. Since the publication of that paper the authors had had brought under their notice the case of a woman suffering from acute mania, in whom a condition of liver was present similar to that described in the paper, on holes in the brain, and also a case in which the holes were clearly due to post-mortem changes. The differences to the naked eye were that in the liver affected by decomposition the holes were irregular, and contained gas which formed bubbles under the capsule, whilst in the genuine cystic degeneration the holes were regular and contained no bubbles. Under the microscope the difference was very marked, for in the latter case there was extreme vacuolation of the hepatic cells, one or more minute vacuoles appearing in the cell, gradually enlarging and pushing aside the protoplasm; soon the cell bursting adjacent vacuoles coalesced, and a large hole was formed. In the case due to post-mortem changes no such appearance was found. Under the microscope the vacuolated liver now shown was indistinguishable from that exhibited last year, when all the viscera were affected. Therefore, it was concluded that in those cases also the universal formation of small cavities was, as the authors then maintained, an ante- and not a post-mortem change. They thus came to the conclusion that this universal cystic degeneration, as a result of vacuolation, was a genuine, but hitherto unrecognised, condition which most commonly affected the liver, frequently only the liver and kidney, and, in rare cases, most of the viscera in the body.

Aneurysms of the Pulmonary Artery.

Dr. SAMUEL WEST described two cases. The first was that a labourer, æt. 40, who had suffered from a cough for twenty years; seven months before admission to the hospital he had had hæmoptysis, and three weeks before he had suffered from pain in the left mammary region, and had lost much flesh. For the last twelve days of his life he had brought up half-a-pint of blood each day. After death, the right lung was found to be emphysematous, the left was universally adherent. Its upper lobe contained a cavity as large as a Tangerine orange, in which there existed an oval aneurysm the size of a walnut. The aneurysm presented an irregular triangular rent, and was lined with laminated clot; it had contracted adhesions. The second case was that of a seaman, æt. 21, who had formerly been in the army. He had suffered from hæmoptysis and cough. On admission into the Victoria Park Hospital, phthisical disease of the right apex was discovered, with ulceration of both vocal cords. Hectic fever of well marked character persisted throughout his illness, although for a long period he continued to bring up large quantities of blood. It was estimated that he must have lost more than twenty pints of blood during the last few weeks of his life. After death the left lung was found adherent at the apex, but emphysematous elsewhere. A sinuous cavity existed in

the anterior part of the lower lobe. The right lung was adherent, the lower lobe collapsed, and a loculated empyema existed near the base. The aneurysm had ruptured by a small linear slit. Dr. West divided fatal cases of hæmoptysis according as the blood proceeded from the trachea and tronchi, or from the lungs. His cases belonged to the latter class, and the literature on the subject was meagre. Out of twenty cases Dr. West only once failed to find an ulcerated pulmonary vessel to account for the fatal hæmoptysis. Aneurysms of the pulmonary artery were generally small, not larger than a small cherry; rarely multiple, they occurred in the large branches of the arteries, in chronic cavities or their trabeculæ. There was no relation between the size of the cavity and the presence of an aneurysm. Their development was due to want of support of the vessels. They were not to be diagnosed till severe hæmorrhage had set in, they affected no particular age.

Mr F. Treves showed a man suffering from actinomycosis.

Mr. Heath showed a man with a recurrent tumour in the parotid region.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 8.

John Marshall, F.R.S., President, in the Chair.

On the Direct Treatment of Spinal Caries by Operation.

A Paper by Mr. Frederick Treves on the above subject was read and discussed. Mr. Treves contended that the gravity of spinal caries depends not so much upon any special pathological feature in the process as upon the depth at which the disease is situated, and its inaccessibility to the usual operative procedures applied to caries elsewhere. Diseased bone cannot be removed from the vertebral bodies, and the morbid products having to travel a great distance in order to be evacuated, are apt to induce immense purulent collections. These collections are usually opened at a point remote from the original seat of the disease. In the operation proposed by the author the anterior surfaces of the bodies of all the lumbar vertebræ and—with some reservation—of the last dorsal vertebra, can be reached from the loin. A vertical incision is made near the outer edge of the erector spinæ; the sheath of that muscle and the quadratus lumborum are cut through; the psoas muscle is incised and the vertebræ reached by continuing the operation along the deep aspect of that structure. The details of the procedure are fully described. By means of this operation the vertebræ can be readily examined, carious or necrosed bone can be removed, a ready and direct exit can be given to all morbid products; an abscess situated in the psoas muscle or in the lumbar region can be evacuated while it is yet small, and before it has led to a huge abscess cavity. If a large psoas or lumbar abscess exist it can be evacuated at its point of origin, and at a spot that, in the recumbent posture, corresponds to its most dependent part. If Hueter's statement be true, that the two vertebræ most frequently attacked by caries are the last dorsal and first lumbar, the operation should be capable of frequent application. The author details three cases in which he performed this operation. All the patients made a good recovery. In one of the instances he evacuated at its point of origin a psoas abscess containing forty ounces of pus, and removed from the body of the first lumbar vertebra a large sequestrum measuring one inch by half-an-inch. The immediate improvement in this patient's condition was very marked. In another case the psoas abscess had been opened in the thigh some months previously. By this operation a counter opening was made at the point of origin of the abscess from the lumbar spine, and the entire abscess cavity was drained by a tube passing from the origin of the psoas muscle to its insertion.

The President congratulated the author on his paper and invited discussion. He drew attention to the many specimens of vertebral caries which were on the table, and which he thought would help to decide the question as to the commonest position at which the disease occurred.

Mr. Treves somewhat amplified the details of the cases recorded in his paper: the young woman from whom the necrosed bone had been removed, was absolutely well; but the boy, though he had improved as to the local disease, had subsequently died of lung disease with amyloid degeneration of liver and spleen. The specimen of the diseased vertebræ was on the table, and showed the localised condition of the caries.

Mr. Barwell thought that Mr. Treves was to be congratulated, more especially on the closing paragraphs of his paper and on the very unusual condition found in his first case. He said the closing paragraphs, because in them would be found indicated that which will prove valuable in the operation described by Mr. Treves. He would occupy a few moments in considering the condition of bone in caries of the spine, as it was always, or very nearly always found. In a few instances there was a superficial caries occupying generally the front of the vertebræ, and usually spread over a good number of bones, over a far greater extent of surface than could possibly be reached during life. Such disease did not produce angular curvature, not, at all events, until very far advanced indeed. But the more common form was generally confined to three or four vertebræ—the upper and lower of the affected bones appearing to be only secondarily diseased by the corrosive action of pus—the middle bone when three, or the two middle ones when four vertebræ were involved, became carious, the front and lateral parts of the body quickly disappeared, so that there only remained a wedge of softened bone, infiltrated with and soaked in pus. To attempt the removal of such disease by operation, especially when that operation has to be carried out at a depth which precludes any very accurate guidance of instruments, must be fraught with such danger to the spinal canal that it would in most instances, if not in all, be unjustifiable; nevertheless, Mr. Treves was to be congratulated on his first case. On reaching the spine he had found an abscess cavity leading direct to a sequestrum, already loose, and, being pushed away by granulations, and it was easily removed. The patient of course was greatly benefited and got well. But such a condition about the spine was exceedingly rare, so rare that no operation could be founded upon it, more especially as it could not be diagnosed during life. Of the other two cases, one was a caries already healed, and the other a persistent one, both accompanied by abscess, and both benefited by free opening and draining away of the pus. It was on this point he thought that Mr. Treves' concluding remarks were valuable. Limited to its proper sphere, the operation would certainly take its place in surgery. This place was not the removal or gouging of carious parts of vertebræ, but the free opening, draining and keeping sweet of the abscesses which result from that disease.

Mr. Bryant congratulated Mr. Treves on having shown how the principles of surgery which obtained in the treatment of abscess elsewhere could be applied to the region of the spine; and although it must be felt that this plan would only prove of service in a few cases, the operation on that account was not to be depreciated. Contrary to the usual teaching, many abscesses in this region were not dependent on caries: or the caries when present was secondary to the pus, and not its source. The paper suggested a not difficult means of getting at pus in the region of the vertebræ during the early stage, and while the pus collection was small, and at a spot which allowed good drainage. It could, however, only be done in exceptional cases. The disease was not always in the vertebræ but almost as often in the intervertebral substance: in either case, however, the patients would be more likely to recover if the pus could be let out and the abscess cavity well drained. He would make just one criticism: he thought the drainage-tube was very much larger than it need be. Finally, he would say the idea was not altogether a new one; he had himself treated a few cases on this principle, though not quite after the plan now advocated by Mr. Treves.

Mr. KEETLEY said that, having found correct the statements made in Germany, as to the value of treatment by erosion and iodoform of caries of the bones of the limbs, he had been for some time anxious to discover a suitable case of caries of the lumbar spine on which to try the same treatment. But hitherto he had only met with two cases, which shewed little more than the practicability of such proceedings as those described by Mr. Treves. As however, they clearly proved this, he now mentioned them. In the first case, that of a girl of 16 with lumbar abscess, he opened the abscess and was able to discover a carious transverse process of the third right lumbar vertebra, as well as to examine the side of the body of that vertebra with the tip of his finger. With antiseptic drainage, and the injection of a solution of iodoform in ether, the abscess closed and the patient convalesced. In the second case, marked angular curvature had existed for many years in a woman now aged 29, and there were several fistulous openings about the loins, buttocks and thighs. These were scraped out, and the original seat of disease in the bodies of the lumbar vertebræ cut down upon by an incision similar to that described by Mr. Treves; but these bodies were found firmly anchylosed together, and, as far as could be made out, not at all carious. But caries was found on the dorsal aspect of the sacrum. This was scraped, and the wound and sinuses were injected with iodoform in ether. This patient is still in the West London Hospital, with wound and sinuses almost closed. The first-mentioned patient was operated upon on September 9th last, also in the West London.

Mr. NOBLE SMITH acknowledged the value of this suggestion: yet it was not a new plan, for Mr. Furneaux Jordan had advocated a similar plan some time ago, a fact, by the way, which in no way detracted from its merits. Mr. Jordan would only have had his plan applied in severe cases, which had resisted treatment for a long time. He (himself) thought that such an operation certainly ought not to be applied in early cases, and he made his modest protest against any such practice. In the recorded cases the operation had proved itself of value; but he thought that equally good results were to be obtained from rest. Many cases died because rest could not be effectually carried out.

Mr. MACNAMARA referred to the pathological differences in the cases, most of which were undoubtedly tubercular in character. Percival Pott in his admirable Treatise, had first drawn attention to this fact; he recorded how cases could be absolutely cured by counter irritative, a statement which his own experience would corroborate. The counter irritation consisted in the insertion of an issue in the back, which was allowed to remain *in situ* for two or three months or longer. Pathological anatomy had long since cleared up the nature of the disease, and shown its tubercular nature; that at first it is very local in its action and very limited, and that the diseased material, under favourable circumstances, is absorbed and replaced by new bone. Pott's cases were not all very early ones; for the Treatise was one on paralysis in association with spinal disease; hence probably the cases were far advanced.

Mr. KNIGHT TREVES (Margate) thought that the operation now advocated was suited to let out pus, rather than for the treatment of caries; and when pus was present, some such operation was clearly indicated. He had seen a great number of cases of spinal disease, and a more hopeless disease he could not conceive. The rarity with which the disease was seen in people of 30 or 40 years of age, was sufficiently accounted for by its mortality. As regards the removal of bone, he thought the proceeding a more doubtful one. It was difficult to diagnose necrosis of the spine; but such cases probably ran a more acute course, whereas caries was essentially slower, and more chronic in its course.

Mr. R. W. PARKER said all would sympathise with Mr. Treves in his wish to make spinal disease more accessible to surgical treatment; at the East London Children's Hospital he saw a large number of cases, and he was awake to the insufficiency of the present methods of treatment in a large proportion of these cases. An analysis of 183 cases of which he had notes, showed that the disease was located in the cervical region 9 times; in the dorsal region 82 times; in the dorso-lumbar region 21 times; and in the lumbar and lumbo-sacral region 37 times, while in 34 cases its exact locality was not specified. These figures did not quite agree with those of other observers as to the commonest seat of the disease. He could not agree with Mr. Treves in his view that the gravity of spinal caries depended not so much upon any special pathological feature in the process as upon the depth at which the disease was situated. His own experience was that abscess was comparatively infrequent in spinal caries. Thus, in the 9 cervical cases, suppuration was present in 2 cases; in the 82 dorsal cases, in 6 only; in the 21 dorso-lumbar cases, in 6; in the lumbar and lumbo-sacral cases, suppuration was present in 28 cases. He quite agreed with the last speaker, that the operation was chiefly suitable for the letting out of pus, rather than for the treatment of caries. Unfortunately it was by no means easy to diagnose pus. When caries was present it was desirable that healing should go on slowly, for in this way there was less probability of the nerves within the spinal column being interfered with.

MR. HULKE rather took exception to Mr. Parker's statistics; he had at first thought they referred to *post-mortem* examinations, but it was obvious on consideration that this was not the case, and indeed Mr. Parker had stated that the observations were made from a clinical standpoint. He would remind the Society that abscess in such cases only occurred late on in the disease, and that it was impossible to deny its existence even when it did not present on the surface.

MR. PARKER, in explanation, replied to Mr. Hulke, that he spoke from a clinical point of view. Many of the cases were under observation for long periods, and when recovery took place without the formation of an abscess, he had concluded that pus was not present in any considerable quantity. Moreover, he had made a few *post-mortem* examinations, and had been struck with the absence of pus; a small amount of thick caseous material was all that he found, in quantity quite disproportionate to the extent of the bone disease.

MR. HOWARD MARSH wished to criticise the title of Mr. Treves' paper, which ran thus:—"On the direct treatment of spinal caries by operation." Discussions which took place at that Society attracted attention in the profession, and he thought that many who read the paper might, unless a caution was given, be led to undertake operations, in cases of spinal disease, which would be attended by very unfavourable results. He believed, notwithstanding its title, the paper was intended by the author to advise the early treatment of spinal abscesses by free incision and drainage in favourable situations, rather than to recommend an operation for the removal of bone. On this understanding, he regarded the paper as one of great value. Such interference, he thought, would be attended with a very favourable result, in cases where otherwise recovery was unlikely. The paper, in fact, showed how the principle of evacuating matter early, so widely established in other cases, might be applied to the cases of spinal disease. But as to the treatment of the spinal disease itself, by the removal of diseased bone, he felt that to advocate such a step would be a great mistake. In disease of the spine, a sequestrum was very rarely present. The condition induced was that of caries: that is, the bone was soft, and in a state of molecular disintegration. But the line of demarcation between this and mere chronic inflammation could not be defined, and to cut away bone that was merely inflamed was mischievous; the mechanical injury did much harm, and bone was removed that would, if left, have recovered. He had seen, at the Hospital for Sick Children, many cases of large spinal abscesses, in which Mr. Treves' operation would have been very valuable. But he anticipated, notwithstanding the title of the paper, that the author did not wish to be understood as advocating operations on the spinal column, for the direct purpose of removing diseased bone; though, of course, should loose bone be found (as in the first case), it should be carefully taken away.

Mr. SAVORY said that he need hardly remark that any suggestion in surgery coming from Mr. Treves was worthy of most careful consideration, and perhaps the best contribution towards an answer to the question he had raised, would be given by pointing out some of the difficulties which

occurred to one's mind in relation to the practice he proposed. In the first place, then, it appeared that the operation could not, in most cases, afford an exposure of the diseased structures, adequate to enable the surgeon to remove safely and completely the carious bone. Even in situations far more favourable to operation, as in the instance of the tarsus, this difficulty not infrequently presented itself. Even here, everyone was grateful to Esmarch's bandage, for the clearer view it gave the surgeon of the condition of the several structures. What then must be the difficulty of cutting away carious bone in a satisfactory manner in the case of the vertebræ? And then again, for operations in caries to be successful, certain conditions are necessary. It is not every case of caries that is benefited by operation. The pathology of caries should not, in this question, be overlooked. The state called caries is not a primary one, and is preceded by changes of the nature of inflammation and disintegration; and unless the whole area of morbid changes can be included, an operation which deals with the surface of ulceration only may be worse than useless. The case of necrosis was quite different. If by an operation a sequestrum can be removed, then indeed the result may be very useful and brilliant. In fact, it is not too much to say that in such a case it may be the means of saving life. But then, how are we to diagnose the presence of a sequestrum? Seeing how many cases recover without operation, are we justified in commonly performing it on the chance of discovering a loose fragment of bone? He could not sit down without alluding to an observation which had fallen from Mr. Bryant, to the effect that psoas abscess not unfrequently occurred without any preceding disease of bone. If Mr. Bryant would record the facts on which this statement was founded, he would be doing good service to the Society and to surgery.

Mr. Eve, at the request of the President, had placed on the table specimens of spinal caries, involving especially the dorso-lumbar region. On looking through the catalogues of the Royal College of Surgeons Museum and St. Bartholomew's Hospital, he found that, roughly, in 60 specimens, the last dorsal or first lumbar vertebræ were involved in 30. but the latter in a minority of the specimens. Mr. Treves had stated in his paper that by the operation detailed the last dorsal vertebra could be reached, and therefore in a large number of cases the abscess could be opened at an early stage and drained by that method, although the bone disease might not be adequately dealt with. Mr. Eve was fully aware that Museum specimens did not offer an exact criterion of the actual proportion of cases of diseases affecting particular regions of the spine, but the above was an interesting fact which to some extent corroborated Hueter's statement.

Mr. Bryant explained, in answer to Mr. Savory's criticisms, that he referred to acute abscesses about the spine and psoas region. While pathologist at Guy's he had seen several cases of psoas abscess, not associated with spinal caries; further, he had seen cases of dried-up abscess within the psoas muscle and without caries. It was to such cases that he alluded.

The President remembered the case of a man who, after riding rough-shod over Hampstead Heath, received some injury, and shortly afterwards died of pyæmia. There was no external abscess, but an autopsy revealed a large suppurating hæmatoma within the sheath of the psoas muscle. The asserted greater frequency of disease between the last dorsal and first lumbar vertebræ was, perhaps, to be accounted for by the great mobility of the spine at this part. He then called on Mr. Treves to reply.

Mr. Savory explained that when he had referred to psoas abscess, he of course meant the ordinary chronic and not the acute traumatic variety.

Mr. Treves replied. He said:—Not only had the title of his paper been somewhat unfortunate, but the first of the recorded cases had, in a sense, been also a little in opposition to the object with which the paper was written. Many of the speakers had very reasonably surmised that the procedure was deliberately directed against the bone, and had for its principal purpose the removal of sequestra from the spine. He entirely agreed with all those who condemned such an object. He should be strongly opposed to the gouging away of carious bone from the spine and to the indiscriminate removal of the diseased parts. Sequestra were very rare indeed in cases of this kind, and in the first of his cases, the presence of the sequestrum, which he had removed, was entirely unexpected. The main purpose of the paper was to detail an operation, founded upon precise anatomical data, whereby, the lumbar vertebræ could be reached, and pus arising from bone disease be evacuated at its point of origin. The procedure merely aimed at placing disease in the spinal bones in as nearly as possible the same position with reference to treatment as caries of other parts. Mr. Barwell was opposed to the operation, because, as he rightly said, the exact site of the malady was not always certain. In answer to this he would ask which step was the more serious: A simple exploratory incision down to the spine under antiseptic precautions, or the leaving of a case of uncertain bone disease to quietly develop until it reached such proportions as to be readily recognised? Mr. Bryant's observation, that pus in contact with normal bone may in time lead to erosion of that bone, was very important, and was a strong argument in favour of evacuating a psoas abscess as early as possible. He was unable to see in what way Mr. Furneaux Jordan's proposed operation—mentioned by Mr. Noble Smith—resembled the one he had detailed this evening. He would agree with Mr. Smith that rest was of very great importance, but he believed that serious evils had followed a too great leaning towards that measure. It had led to the indiscriminate treatment of all spinal cases by apparatus. The apparatus appeared to have been considered all-sufficient. In many cases this treatment had fallen into unworthy hands. A large section of the laity still had the impression that all spinal maladies must be treated by apparatus of some kind. He did not think that the opening of a psoas abscess in the iliac region or just above the iliac crest was to be advised. The opening was some way distant from the seat of the disease, drainage was less easy and the operation less safe on the whole. He had found no difficulty in fully exposing the diseased part; tearing of muscle was not required. The bone was bared fully by the abscess, and when the finger was introduced into the abscess cavity the diseased district would be found to be as well exposed as by a dissection.

There was a large collection of specimens of spinal caries from the London Hospital, from University College, and from the College of Surgeons.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

Wednesday, January 9th, 1884.

Norman Chevers, C.I.E., M.D., President, in the Chair.

The Cause of the Cholera in Egypt.

Surgeon-General Hunter said, that in regard to the recent outbreak of cholera in Egypt, there was one point in his report to the Government, which was of such paramount importance, that he wished to bring it before the members of the Society, and he intended to limit his remarks to that one point, viz., to inquiring into the origin of the commencement of the outbreak. Egypt, he said, was about the same size as Belgium, but with a population close upon 6,800,000 inhabitants, or 1¼ million more than Belgium. The soil was alluvial, rich in decomposing organic matter; the people were agricultural, and led an out-of-door life. The country was almost rainless, except for three months during the cold season, the sky was cloudless, the air dry, the winds almost always northerly. The Nile was the only source of water supply, and periodically inundated the country; the rise began in June, and attained its highest point in September, then gradually falling till the following June; the subsoil water level of course followed that of the Nile. The inhabitants mostly drank water unfiltered and before it had time to settle. At Cairo there was only one tank for drinking purposes, and

the water was highly charged with inorganic and organic impurities; in the fashionable quarter there was no attempt at filtration. The water supply at Alexandria was good, it was the only town in Egypt with a wholesome water supply. The Nile was polluted almost from its very source with filth, garbage, and the excreta of all the towns on its banks. At Cairo and Alexandria it was found to contain minute bacteroid organisms in considerable numbers. There had been greater pollution of the river than usual, by the carcases of animals that had died of typhus fever being thrown in, in order to avoid the fee payable on their death; thousands must thus have been thrown into the river. It had been rumoured, too, that the fellaheen had sometimes eaten the bodies of animals that had died of typhus. It was the custom of the country that all the domestic animals should live in the hut with the family. The cesspit system prevailed at Cairo, *i.e.*, holes were dug in the sand, but these were rarely cleaned or emptied, and the house pipes and cesspits were in direct communication. Some attempt at a sewerage system had been made in Alexandria, but the contents of the sewers were emptied on to the beach, and though the sewers were provided with ventilators, these had been closed five years before his visit. Moreover, the privies were in direct communication with the sewers. Throughout the country grossly insanitary conditions prevailed, but he was happy to be able to state that the *Conseil de Santé* had been abolished. The prevalence of bowel disorders was very marked, and he had no doubt that under the head of diarrhœa were included many deaths from cholera. As a rule, no attempt was made to register the cause of death until after the burial. In one town, out of 40 deaths 26 were due to diarrhœa; in another, out of 174, 93 were so caused, and at a later period in the same town, 57 out of 110. In Cairo, in 1882, out of 17,290 deaths, about 38 per cent. were due to some affection of the alimentary canal. In Bombay, in 1881, the mortality from bowel complaints was 2 per cent. Passing then to the events more immediately connected with the outbreak, he said that the campaign was very short; it took place away from the Delta, and the troops who came from India, and being picked were healthy, began to suffer from diarrhœa directly they got to Cairo. Since 1831 there had been five epidemics of cholera in Egypt, excluding the one in 1865. In his opinion, no country was ever more ripe for an outbreak of cholera than Egypt was. A commission, appointed immediately the news of the outbreak was given, decided that the disease was cholera, but could arrive at no conclusion as to its origin. Dr. Flood's theory of a stoker on board the *Timor* having brought it from India had been shown to be baseless, as the man was simply a drunken scoundrel, and did not arrive at Damietta until two days after the commencement of the epidemic. Ahmed Chaffey Bey and Salvator Ferrari had admitted, as the result of their investigation, that the insanitary state of Damietta afforded ample scope for the genesis of cholera. The other importation theories had also broken down: one was still under inquiry, viz., that the disease had been introduced by stokers and firemen plying between Bombay and Port Said, but he was confident that it had no foundation. He then referred to Dr. Couvidon's report, the substance of which was given in an article in these pages, and also to a communication in the pages of a medical contemporary, against the theory of importation. For himself, he did not believe in the specific nature of cholera, and regarded the recent epidemic as the outcome of a disease that had existed endemically in the country. He then referred to the evidence he had been able to collect of the existence of cholera before last June, mentioning the two children at the Greek School at Damietta, and quoting extracts of letters from Dr. Dutrieux, Sonsino, and Sierra, all of which were given in his second report, and have already been alluded to in these pages. Dr. de Castro had supplied some account of suspicious cases that he had seen from time to time, but he was of opinion that though they resembled Indian cholera, yet they were not cholera, because they were less grave, and because the cases did not spread. Dr. Mackay had done some good work in this direction. On the whole, he (Dr. Hunter) considered that he had ground for the belief that the disease had been endemic in Upper Egypt since 1865. He then briefly referred to the valuable aid he had received from the medical men sent out to assist him, especially from Surgeon-Major McNally, at Zagazig, and Mr. Honman, in the neighbourhood of Mehallet-el-Kebir, and quoted a speech made to Sir E. Baring by a high official: "We all know that cholera has been constantly here, and generally follows the cattle-plague, but we are told to say nothing about it." He had arrived at the opinion that cholera had been endemic in Egypt since the great epidemic in 1865, and his information had been received from medical men not in the employ of the Egyptian Government. It was no argument that the disease was not cholera, because its importation could not be traced, or because it did not spread. If the cases of cholerine were not true cholera, then cholera was not endemic in Bombay, for the cases presented no difference, either clinically or pathologically, from cholera. He believed that cholera was endemic in many towns in Europe and in the British Isles. Passing to the consideration of the atmospheric conditions, he referred to Glaisher's work in connection with the three epidemics in this country, and said that in India cholera had been associated with a high temperature and moist stagnant atmosphere. Dr. Kirker, R.N., had described how stagnancy of the air over one town had seemed to force the disease into existence, and had collated a series of charts for 13 years, from which it appeared that the weather of last June was exceptional, whilst that of the 9 or 10 days before the outbreak was unique in character. Dr. McDowell had dwelt upon the peculiar condition of the atmosphere, noting its yellowness, and the fact of the migration of the sparrows. The Arabic phrase for cholera meant—"the yellow air." He thought it was undoubted that there was some close relation between these atmospheric conditions and outbreaks of cholera, but whether of cause and effect or not, he was not prepared to say.

THE PRESIDENT thought they were all much indebted to Dr. Hunter for his instructive communication. It dealt solely with the question of the genesis of cholera—a question of national importance. For his part he was no believer in the propagation of cholera; and in India no precautions were taken with regard to the conveyance of the disease. Egypt and France at considerable expense and great inconvenience to others, did adopt such precautions.

SURGEON-GENERAL MURRAY said that Dr. Hunter's experience had well fitted him for the task which he had undertaken. There was no foundation for the theory that the disease had been imported from India. Dr. Hunter said that it arose spontaneously from insanitary conditions. What was meant by the term "spontaneous?" Did the disease suddenly spring into existence, or was there a gradual development, and if so, how long did it take? or was it called spontaneous because it could not be traced to any other source? The history of the disease displayed a dormant state, it might assume an active form in a few minutes, hours, days, weeks, months, or even years. He referred to an outbreak at Agra, where it was taken in the wards of the hospital by himself and others in a few minutes. The disease did not often remain dormant in a person more than 3 to 4 days. It was often communicated through the ground,

as in the case of a healthy regiment following an infected one on a camping ground. Coolies had been known to contract cholera in a very short time from opening graves from 6 to 8 years old. In Bengal there was not a single district that had been free from cholera for the space of one year. An endemic disease, he considered, depended on the locality, those living there would get it and might take it away with them, but they would not give it to any one elsewhere, it was a non-contagious disease. The communicability of cholera had been proved beyond doubt by two epidemics. In Hurdwar, in 1867, it broke out among some pilgrims who dispersed over the country and it broke out wherever they went, amongst the inhabitants of the district. Dr. Bryden had endeavoured to account for this by saying that an epidemic of cholera was then due. But in 1879 there was another pilgrimage to Hurdwar, and again it was spread all over the country following the track of the pilgrims, but this time, owing to the introduction of the railways, it spread much more rapidly, appearing in Mooltan two months sooner than on the previous occasion.

Brigade-Surgeon Scriven was not strong in the belief that cholera did not originate spontaneously, but he was not convinced by the evidence adduced by Dr. Hunter, that the earlier cases had been instances of true cholera; sufficient details had not been given to satisfy him. If the disease did not spread under such insanitary conditions, the disease could not be cholera. It was possible that hereafter he might be convinced that cholera had been endemic in Egypt, but there was not as yet sufficient evidence. The symptoms of true Asiatic cholera were suppression of urine, marked fall of temperature in the second stage, watery diarrhœa, vomiting, and a tendency of the disease to spread.

Sir Joseph Fayrer considered the paper of great importance, and a decided step in the right direction. He thought that Dr. Hunter had amply proved that cholera had been endemic in Egypt. He was sorry to see that the Egyptian authorities had recently imposed a fresh quarantine of 14 days on vessels from Bombay. He hoped that this paper would put a stop to these absurdities.

Prof. de Chaumont considered this a very valuable paper. Pettenkofer had distinctly asserted that our troops, during the late campaign, had brought the cholera from India; no cases were brought, but the troops had brought the disease to Egypt, and left it there. According to this theory, the disease was not communicated from one to another, through the vomit or fæces, but rather as a germ or ferment, which could flourish when it found a suitable soil. He agreed with Dr. Murray, as to the communicability of cholera, and did not believe in its spontaneous origin. In Egypt, the theory of the importation had not been proved. He considered that Pettenkofer's was the most plausible hypothesis; if this would not hold, then the germs of the disease had lain dormant for many years. There was in this country evidence of that kind, in regard to enteric fever, which could certainly lie dormant for a while.

On the suggestion of the President, it was agreed to postpone the further discussion of the paper until the next meeting of the Society.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

December 5th, 1883.

Joseph Walker, M.D., President, in the Chair.

Absorption of Hard Palate from Pressure.

Mr. J. B. Sutton showed a remarkable case of absorption of the hard palate, &c., as the result of long-continued pressure. The patient had suffered from perforation of the hard palate, of syphilitic origin, and for many years before his death he had been in the habit of closing the aperture with rags, increasing the size of the plug as the opening became larger, until the following state of things resulted. The anterior three-fourths of the hard palate, with the whole of the alveolar arch and teeth, had entirely disappeared; the antra, nasal fossæ, and mouth formed one large cavity, bounded laterally by the thin outer shell of the superior maxillæ, and above by the orbital plates of the maxillæ, the superior and middle turbinate bones and the cribriform plate; the nasal septum was almost completely destroyed, and the left lacrimal bone had disappeared.

Relations between Dental Lesions and Diseases of the Eye.

Some other interesting specimens having been exhibited, the discussion of Mr. Henry Power's paper on "The Relations between Dental Lesions and Diseases of the Eye," read at the previous meeting, was resumed.

Mr. Macnamara spoke highly of the value of the paper, which he believed to be the most complete collection of facts bearing upon this important subject which had yet appeared in the English language. Cases were not unfrequently met with in which atrophy of the optic nerve on one side occurred without any apparent cause—no local inflammation and no evidence of any central lesion. These cases were very puzzling to ophthalmic surgeons; in future he should always carefully examine the teeth. If it should be found possible to arrest these cases of amaurosis by extracting a few teeth it would be a most important discovery, and he thanked the author of the paper for calling his attention to this possible cause.

Mr. S. C. Gibbons, of Brighton, mentioned the case of a young lady who, after suffering for eighteen months from greatly impaired vision, said to be due to amaurosis, applied to him and had a number of dead and decayed teeth extracted. Improvement in the sight took place at once, and in the course of a few weeks it was almost as good as ever; one eye, however, remaining a little weak.

Mr. Smith Turner thought the subject of the paper concerned the ophthalmic rather than the dental surgeon. The latter might assist the oculist by pointing out sources of dental irritation which might escape the notice of his colleague, and would of course have the chief share in carrying out the treatment thus indicated; but, as the diagnosis and treatment of diseases of the eye required special knowledge and experience, it was evident that such cases as those referred to in the paper must be dealt with mainly by the oculist.

Mr. Savory remarked that Mr. Power's paper called attention to a most important principle which was constantly in action in all parts of the body, both in health and disease, viz., that intimate connection between different, and often distant, organs which was commonly referred to under the name of *sympathy*. The fact that the cause of disease might be in one part of the body and the signs of it in another, was one which should be constantly kept in mind, though it was, unfortunately, constantly forgotten.

Mr. Chas. Tomes said it had generally been thought that remote nervous disturbance was most likely to occur when the living tooth pulp was irritated. But he found that in most of Mr. Power's cases the teeth were dead; consequently the source of irritation was external to them and must have acted directly on the trunk of the dental nerve, which lay in close proximity to the roots of the teeth, and not upon its terminal filaments. He thought this was an important point and worthy of attention.

The discussion was continued by Messrs. Hunt, S. J. Hutchinson, Storer Bennett, and others, after which Mr. Power replied, and the President adjourned the meeting.

GENERAL CORRESPONDENCE.

THE PLETHORA OF CONSULTANTS.

[To the Editor of the Medical Times.]

Sir,—Will you allow me, as one of the younger London consultants, to express my views shortly on the subject of the social status of the profession and the fees of physicians, referred to in your last issue. I think the writer in the American journal has certainly missed the point when he states that the low social position of the profession is marked by a want of State distinction, and caused by the lowness of medical fees. The medical men who have done the State some official service are generally "honoured" enough, if titles be considered honourable; and it is not usual in other professions for the State to confer distinction on those who are simply successful or respected in their own sphere of work. When I read Dr. Clifford Albutt's admirable address

at Leeds, last October, I hoped that he had spoken the last word to thinking and self-respecting men on the subject of medical honours. The honours given at present to medical men are certainly no unfailing test of their real worth or of their social status; for we often find that really scientific men, whom the profession delight to honour, apart from their professional success, are by no means the first to receive titles, while many are decorated simply because they have been lucky enough to please the public, to make large practices, or to be the attendants on royalty or influential public men. With respect to the large number of consultants who are confessedly not doing any practice worth speaking of, it seems obvious that they must be left to take care of themselves. If they fail in making incomes, and are disappointed in consequence, they have themselves to thank for it, for they enter the lists with their eyes open. Many of them are satisfied with the position they acquire as hospital physicians and surgeons, and the opportunity they have of gratifying their tastes, and of doing scientific work; and certainly a large number do not begin their career with any strong desire or definite hope of making a large pecuniary success.

I admit that the profession, as a whole, is insufficiently paid, and am quite in accord with those who believe that this state of things is to be remedied by the raising of the fees of those who have made a recognised success and wide reputation. No one would lose if a dozen of our leading men would refuse to see a patient for the first time for a fee of less than five guineas, or even more, and who would ask at least three guineas a visit for any attendances, however often, at a patient's own home in London, should the patient desire them to undertake the case. By this means the younger consultants could fairly raise their fees, and the remuneration of the whole profession, including of course the general practiotioners, would tend to be improved. How all this, however, would assist in bettering our social status it is difficult to see. I am rather of the opinion that that happy consummation will come to pass when better educated men join the profession, of which we have ample signs at present, and good hopes for the future, and when the spirit of the tradesman comes to be gradually extinguished by a growing devotion to science and a wide love of humanity.

Yours, &c.,

A HOSPITAL PHYSICIAN.

P.S.—The suggestion of your correspondent, M.R.C.P., as to a *descending* scale of fees for (1) "Senior Physicians and Surgeons of Hospital Staffs;" (2) "Physicians and Surgeons of established reputation;" and (3) "Junior Physicians and Surgeons," is surely a very subtle joke.

[To the Editor of the Medical Times.]

SIR,—The day has quite passed for the mere aspirant to consulting practice to attempt it without very good reasons for his presumption. We fear that talent alone is hardly sufficient, but it must be helped by means from some source; the hideous "waiting" without it, is too great a strain now, when the absolute acquisition of the facts themselves whereon to base one's knowledge for practice, engross so much attention.

The smart young house-surgeon, or demonstrator, is often dazzled by the success of some fortunate junior member of the staff who has that greatest gift of all, the knack of "getting on;" he tries it, the result is rarely satisfactory, and if it be, is often a questionable imitation of a questionable method. Pure science slowly leads to practice, and should it ultimately do so, that very art of dealing with patients is placed in the background, or never has its chance.

You modestly place the number of consultants who should "sacrifice their dignity" at "fifty." I suppose this includes strugglers in both medicine and surgery; one could put one's finger on 25 strugglers in surgery or obstretrics, some of whom are doing well or are on the road to success, some hopelessly out of it, and too many of them hampered with the "premature brougham," in one or two instances a palpable "omne ignotum pro magnifico."

Good and early advice, such as that given by our old friend *Punch* to those about to marry—"don't"—should be freely circulated amongst our rising talent.

You, I fear, speak a little sarcastically in saying that "science no doubt would lose by it;" I should be inclined to think that we might be spared the weekly infliction of some of these unrecognised geniuses at certain of the societies, where they are regarded as an incubus, and as far as one may be allowed to form an opinion, their attempt at scientific investigation falls little short of a still more unsuccesful one at touting for the practice already absorbed by the few.

F.R.C.S.

[To the Editor of the Medical Times.]

DEAR SIR,—I have read with great interest the letter of M.R.C.P., in your last issue, and your remarks thereon. It appears to me that, in London at least, the present relative value of the different grades in our profession is not founded upon clear rational principles, and that the public are not to blame for failing to comprehend it. The result of which is a disastrous loss of both money and dignity to the most deserving members of the profession.

I myself, during the seventeen years that I have belonged to it, have puzzled my brains to know upon what logical grounds the "consultant," the hospital physician or surgeon, should *necessarily* be a superior person to the "general practitioner;" and where lies the loss of dignity in his doing what the latter does.

There doubtless were good grounds for a marked distinction in the days when the wisdom of our forefathers relegated the care of the health, as well as the education, of their nearest and dearest, to any one who chose to assume the functions of "doctor" or schoolmaster; the days when our art was supposed to be easily mastered, like other crafts, by apprenticeship; when "medicine" was cheerfully paid for, and "skill" counted cheap. In those days the intelligence of the nation saw no need for a better order of things, encouraged no better, deserved no better, and got no better. And the "consultant" of those days probably was far superior to any "general practitioner." But does anyone for a moment maintain that the scientific or practical knowledge of the average consultant of say fifty years ago was superior to that of an average M.D. of London or Edinburgh of to-day, albeit a "general practitioner?" The gap has been steadily narrowing, and is now more imaginary than real. I know certainly one man, whose name is far more widely and honourably known, both at home and abroad, than that of some whom I have heard abuse him as a "general practitioner;" who is certainly the most perfect ovariotomist that I have ever seen (and I have seen a good many operations, both at home and abroad), and whom I should prefer to any man I have yet seen, if I required any severe operation upon myself. Moreover, in general culture and refinement he might be followed with advantage by more than one consultant that I know. And there are many other general practitioners who have done good work for science, and who thoroughly maintain the dignity of the profession.

Now wherein lies the assumed superior dignity of the consultant? Is it that he works solely from disinterested devotion to science or humanity? Not so! for he as well as the G. P. works for gain. Is it that he absolutely abjures any two out of the three great departments of the profession? Not so! if I am to judge by one of the most distinguished of London Consulting Surgeons, who lately accepted eighty guineas for a country journey and his opinion upon a case that presented not a single surgical feature! Is it that he declines the sole charge of a case, and will not see it except in consultation with a G. P.? Not so, for he quite commonly does take entire charge from first to last of those who come to his consulting room! Is it that he expects to be waited upon at his consulting room, while the G. P. attends the patient at the latter's house? Perhaps, but as the greater immediate gravity of the case is what usually necessitates the latter arrangement, I fail to see how "dignity" is in any way sacrificed.

In a word, is not the whole assumed superiority of the consultant based rather upon *tradition*, than upon clear principles founded upon the facts of to-day? I do not for a moment mean to disparage the *leaders* of the profession—far from it. I bow my head in reverence to the consultant

who is a leader, but I deny in toto the assumption that a man is a leader because he is a consultant: "Dignitatibus viros dandos non dignitatis hominibus."

But our leaders require no caste privileges to maintain their pretensions to superiority. And what the public want is some better mode of estimating a man's abilities than the existing division provides. If qualifications were fewer in number and origin, and their relative value clearly understood by the public, it would not be so difficult as it now is for them to appraise a man's probable attainments. And why should not the highest qualifications attainable, let us say, only after a certain age, proof of good work done, and mature capacity, be the thing which determines the man's status, and the fees to which he is entitled? and that whether the patient go daily or weekly to the consulting-room, or the doctor go daily or weekly to the sick-room. Finally, I hold the real enemies of our dignity to be those who make the profession a mere cloak for commerce in drugs, or otherwise act unworthily—and no less those who encourage the public in the opinion that all of the profession outside of their caste is inferior to it in skill or culture.

I am, Sir, yours, etc., M.D.

Sir,—M.R.C.P.'s letter may, I think, be taken as a fairly representative one. I believe there is a strong and growing feeling among the younger physicians that they are placed at an unnecessary disadvantage by the practice of accepting minimum fees for interviews and consultations, which is retained by the leading men. It is almost needless to point out that the effect of this practice is inevitably to throw all consulting work indiscriminately into the later years of professional life, to burden those years with an excess of trivial routine, and to make it hardly possible for a physician under the age of forty to live by his profession.

I think the case is hardly met by your suggestion that some fifty superfluous physicians should quit the barren title of "consultant" and devote themselves to making an income in general practice. As long as the "consulting" status is held to convey an access of dignity our profession will afford a certain number of men in easy circumstances desirous of assuming the position without much regard to qualification or profit, and ready to undertake any kind of benevolent work that may seem to set a seal on their title.

But the present illogical system of uniform fees presses most hardly upon the very men who may most legitimately consider themselves entitled to rank as consultants; I mean on the men who, by dint of honest work, have pushed forward to positions on the staffs of the medical schools and leading metropolitan hospitals. Such men are seldom more than slenderly provided with private means, and find it hard measure that they should be required to compete for all they earn on equal terms with the whole body of their seniors. It is no artificial trade rule that is wished for to raise remuneration above its fair level. On the contrary, it is simply desired that the leaders of the profession should act in accordance with natural laws, and regulate their charges by the demand that exists for their services, as other men do. That they do not do so at present is doubtless the result of most praiseworthy motives, but, I venture to think, of most mistaken ones.

For it is not a question of personal interests only. The well-being of the profession, and of medical science, is being injuriously affected by the present unsatisfactory state of things. On the one side we see the elder men withdrawing themselves, to the astonishment of foreigners, from the work of investigation and teaching at a time when their experience is at its ripest, in order to reap the harvest that comes only late in life: on the other we see a number of the ablest students declining to enter the race for the higher places of the profession, which mean an indefinite number of years of poverty to any but a rich man. Between the two is seen many a struggling hospital physician, growing into middle life amid pecuniary difficulties, his horizon narrowed by the exclusive contemplation of hospital cases, the habits of private practice unacquired, himself often sorely tempted to trespass on the domain of the general practitioner, or to erect a new "specialty," or to advertise himself in one or other of the dubious ways that may divert a few guineas to meet some pressing need.

I cordially agree with you, Sir, that every effort should be made to increase the dignity and attractiveness of the general practitioner's position, and to make it more worthy of the class of men who now enter upon it; but here again the financial question comes to the front. As a body, general practitioners of medicine are excessively underpaid considering the character of their work. To improve the position, the first reform must be to raise the rate of remuneration along the whole line; and it is not easy to see how this can be effected while the public are aware that the advice of the most renowned consultants is to be had at so low a comparative rate.

I am, Sir, your faithfully,

Z.

Sir,—What a young man has to face on entering Medicine in the present day is competition with hospital work in two respects. He will find a comparison made to his disadvantage between his abilities and qualifications to treat patients, and those of "hospital men," and he will meet with those who consider hospital treatment much better than that outside such institutions. Further, the element of cheapness will be brought in, such "superior treatment!" being obtainable for *nothing*, or for giving a cheque to the charity when leaving it on recovery (which cheque, by the bye, never reaches any member of the medical profession), or by entering a "paying ward!" These he will find as daily vexations, and they are unjust vexations; for outside hospitals throughout the country there are to be found men who can compare most favourably for careful, safe, and successful work with those who are on hospital staffs, having passed through exactly the same courses of study, and having been tested by the same examinations, and holding the same diplomas, and possessing equal and oftentimes superior aptitude, but wanting only in the *influence* to get a place on a staff. Such men have further learnt that there are many points of departure from and improvements upon the *treatment* of disease as conducted in hospitals, attention to which points is of the utmost value to patients with reference to recovery or not. The experience of cases and their ultimate issues gained by such men is more complete and thorough than that gained in mere hospital practice: patients being watched in the one case over a period of years, in the other case seen for a short time only. It is quite a fallacy to suppose that either the best diagnosis or the best treatment is to be found in hospitals. Many cases which die in hospitals would recover in the worst of homes, as the late Sir J. Simpson, of Edinburgh, said. Then, with reference to cheapness: this competition on the part of charities is an abomination, and means ought to be found to put a stop to it. Medical men ought not to be found who will hold positions in establishments favouring such unfairness. The motives to do hospital work are not charitable purely, as mentioned in the extract from an American Journal in the *Medical Times* of January 5, 1884, page 15: "It is well known that it is not performed from motives of charity, but for the position which is gained by being attached to a hospital staff, and the hopes of a good practice ultimately accruing therefrom."

One way to improve matters would be for every medical man, as opportunity might arise, to explain to his patients, hospital and dispensary these weaknesses and disadvantages, and their name is legion; and another point which the younger men might attend to, would be to carry out the Cottage Hospital plan, with pay, *and thoroughly good pay*, too, attached, and equal division of the pay, work, and honour amongst all the medical men in a district. Such institutions would further furnish clinical instruction for pupils, certainly quite equal to that met with in hospitals.

One word in conclusion—*united effort* amongst the younger men is the best way for them to improve their social and monetary position, and thus bring an increasing share of happiness to themselves and their families, which is justly their *right*, instead of penury and dependence.

With reference to fees, it might be useful if a table of minimum fees, not too cumbersome, could be agreed upon jointly by the Colleges of Physicians and Surgeons, so that men might have good authority for asking for sufficient remuneration, and, as in the Law, where necessary, fees to be paid first.

London, *January* 9, 1884. P.

THE REMEDY FOR SEWER SMELLS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read your annotation upon sewer smells in the last number of your Journal with the greatest satisfaction, as it gives the pith of my teaching in this place for the past twenty years, and as I have, now and then, endeavoured to show in your columns and elsewhere, viz., that if the sewers are properly laid and well flushed they will not smell; that if there are smells from sewers it is the fault of the construction.

Free ventilation is a necessity, and the more free the less chance of evil. It is most unwise to bottle up the results of decomposition, as is so frequently done because a ventilator gives out a smell at a certain point.

My object in writing to you on this occasion is to point out to my medical brethren that the remedy lies in the appointment of efficient officers by local authorities. That whilst the Local Government Board gives its sanction to the construction of drainage works by men who know nothing of the first principles of sanitary science, it will continue to be necessary to reconstruct the sewers of that district at a greatly enhanced cost, after mischief has been done by those sewers which have been laid in opposition to the teachings of sanitary science. The Sanitary Institute of Great Britain has been founded to remedy this defect. The diplomats of that body have shown their ability to perfect drainage works on right principles, and it would be immensely to the interest of the public service if all local authorities would insist upon their surveyors and inspectors of nuisances possessing the qualifications of the Institute before they were entrusted with the duty of constructing works which have an immense influence for good or evil upon the health of the district in which those works are required. I wish I could persuade medical officers of health to support the Institute by becoming members of it.

I am, &c.,

ALFRED CARPENTER,
Chairman of the Council.

Croydon, December 31, 1883.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 3rd January, 1884:—

George Augustus Lovelace Bowling, Sewardstone-road, E.
Frederick William Hatchett, Upper Cheyne-row, Chelsea, S.W.
William Murray, Wray Crescent, Tollington-park, N.
James Norman Vogan, St. Bartholomew's Hospital, E.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 7th inst., and when eligible will be admitted to the pass examination, viz.:—

Anglin, W. G., student of Kingston, Canada.
Biggam, W., of the Newcastle School.
Cossens, W. H., of the Cambridge School.
Denike, G. H., student of Kingston, Canada.
Facey, W. E., of the Cambridge School.
Hewish, E. M., of the Toronto School.
Hughes, H. G., of the Dublin School.
Miller, W. F., of the University of Melbourne.
Percival, A. S., of the Cambridge School.
Roll, G. W., of the Cambridge School.
Stopford, R., of the Liverpool School.
Whitaker, J., of the Edinburgh School.
Yeld, W. H., of the Manchester School.

Nine candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their studies for three months, and one for six months.

MANCHESTER MEDICAL SOCIETY.—At the Annual Meeting held at the Owens College, January 9th, 1884, the following office-bearers were elected:—

President: Daniel John Leech, M.D.
Vice-Presidents: John Augustus Ball, M.B. (Stockport); Julius Dreschfeld, M.D.; James Hardie, M.D.; Thomas Jones, M.B.
Treasurer: David Little, M.D.
Secretary: Charles James Cullingworth. M.D., 260, Oxford-road, Manchester.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The Council of the Faculty have appointed Professor HAMILTON, of Aberdeen, Faculty Lecturer for the year. The subject of the course will be, "The Structure and Functions of the Brain in relation to Disease."

DEATHS.

JONES, WALTER, M.D., formerly of Finsbury Square, at 15, Ladbroke Square, W., on January 5, aged 66.
TEMPLE, JOHN DE LIEFDE, M.D., on January 2, aged 41.

THE BOWER AND KEATES CASE.

The Secretaries desire to remind the members of the profession that the list of subscriptions to the Indemnity Fund was closed on Jan. 5th. They also wish to state that the secretarial work will be greatly facilitated if those intending to sign the memorial will do so and return it to the College of Physicians before Saturday, the 19th inst.

In reply to many letters, it seems necessary to point out that the acknowledgments of subscriptions in the journals cannot be brought up to date of publication owing to the large number of letters received and the pressure of space.

It may be of interest to state that copies of the statement were sent out by the Committee to members of the profession residing in the United Kingdom whose addresses appeared in Messrs. Churchill's Directory for 1883, their number being about 18,500, and in reply to these 1,662 letters were received up to Friday, Jan. 4th (the date to which this week's list is brought), enclosing subscriptions, also 253 letters enclosing signatures to the memorial; 454 were returned through the dead-letter office, of these 320 were stated to have gone away and left no address; 74 were deceased, and 60 declined to receive the letters; these, however, were all redirected envelopes.

The following contributions (fifth list) were received up to Friday, Jan. 4th, the remainder will be acknowledged as soon as possible.

(Signed)

F. A. MAHOMED.
R. W. BURNET.

A. E. Durham, F.R.C.S., £10 10s.; Sir W. Bowman, £5 5s.; G. T. Gream, F.R.C.S., £5 5s.; H. Rickards, M.D., £5 5s.; G. O. Rees, M.D., F.R.S., £3 3s.; F. T. Roberts, M.D., £3 3s.

The following have sent two guineas each:—H. M. Baker, F.R.C.S.; J. Brockwell, Esq.; R. B. Carter, F.R.C.S.; T. A. Cott, M.A.; Charles Coates, M.D.; W. H. Freeman, Esq.; W. C. Grigg, M.D.; W. J. Harris, Esq.; Herefordshire Medical Association; Grailey Hewitt, M.D.; Charles Higgins, F.R.C.S.; Messrs. Kellock and Reynolds; J. P. Langshaw, F.R.C.S.; G. Lund, M.D.; G. Lichtenberg, Esq.; H. Osborne, Esq.; G. V. Poore, M.D.; P. H. Pye-Smith, M.D.; R. H. Semple, M.D.; E. H. Sieveking, M.D.; E. P. Sharkey, M.D.; Pugin Thornton, Esq.; M. H. H. Vernon, Esq.; F. Weber, M.D.; A. Willett, F.R.C.S.; E. J. Winterbottom, Esq.

Messrs. Taylor and Dunbar, £1 10s.; M. Brownfield, Esq., £1 5s.

The following have sent one guinea each:—W. A. Adams, F.R.C.S.; J. F. Anderson, M.D.; F. Argles, Esq.; Messrs. Ashurst, Tucker, and Smith; C. E. Baker, Esq.; A. E. Barker, F.R.C.S.; F. Barnes, M.D.; R. Barwell, F.R.C.S.; H. C. Bastian, M.D.; Adam Bealey, M.D.; Marcus Beck, M.B.; C. T. Blackman, Esq.; J. R. Bosworth, Esq.; Percy Boulton, M.D.; Essex Bower, M.D.; Henry Bott, Esq.; Thomas Bridgwater, M.B.; J. S. Bristowe, M.D.; Messrs. Brookes Bros.; C. T. Brookhouse, M.D.; R. Brown, Esq.; R. Brown, F.R.C.S.; F. G. Broxholme, M.D.; C. Budd, M.B.; J. E. B. Burroughs, Esq.; G. R. Burtt, Esq.; T. C. Cade, Esq.; C. C. Carter, M.D.; W. Cayley, M.D.; E. Chaffers, F.R.C.S.; F. H. Champneys, M.B.; J. D. Chepmell, M.D.; E. F. Chinery, F.R.C.S.; R. H. Clay, M.D.; W. F. Cleveland, M.D.; E. M. Cooke, M.B.; J. Couldrey, Esq.; E. H. Cree, M.D.; J. Croft, F.R.C.S.; M. Davis, M.D.; W. H. Day, M.D.; W. H. Dickenson, M.D.; W. A. Dingle, Esq.; A. R. Dodd, Esq.; H. B. Donkin, M.B.; C. H. Drake, Esq.; T. Eastes, M.D.; J. Fairbank, Esq.; Wm. Fairbank, Esq.; E. A. Fardon, Esq.; Sir J. Fayrer, M.D.; J. R. Fielding, Esq.; C. E. Fitzgerald, M.D.; A. Freer, Esq.; C. C. Fuller, F.R.C.S.; R. Fyson, Esq.; F. J. Gant, F.R.C.S.; F. H. Gervis, Esq.; J. R. Gibson, F.R.C.S.; C. Godson, M.D.; F. W. W. Goodsall, M.D.; W. Goodson, Esq.; F. C. G. Griffin

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The following have sent one pound each:—George Burn, M.B.; W. G. Church, F.R.C.S.; F. D. Dyster, M.D.; Messrs. A. and W. Eddowes; W. M. Harmer, Esq.; A. C. E. Harris, M.B.; F. W. Humphreys, F.R.C.S.; Hermann J. Jones, M.D.; W. H. K. Kane, M.D.; D. Kennard, Esq.; R. McDonnell, M.D.; J. E. Tuxford. Esq.; J. F. Walker, Esq.; G. M. Whitehead, Esq.; C. T. Wickham, Esq.

W. L. Mackesey, Esq., fifteen shillings.

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The following have sent seven shillings and sixpence each:—; H. Malins, M.B.; T. D. Paradise, Esq.; W. Sankey, M.D.

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E. G. Gilbert, M.D., 3*s.* 6*d.*

The following have sent two-and-sixpence each:—M. Britton, M.D.; W. A. Caskie, M.A.; G. Chapman, Esq.; H. Davis, Esq.; E. English, Esq.; J. Farrar, Esq.; J. Frain, M.D.; J. Holt, Esq.; A. Kelso, Esq.; H. E. Maberley, M.A.; G. Macdonald, Esq.; R. T. Manson, Esq.; W. J. Meharry, Esq.; H. P. Olivey, Esq.; T. S. Parry, M.B.; J. B. Pike, Esq.; W. Mortimer, M.D.; J. B. Norris-Cave, Esq.; J. K. Poole, Esq.; W. C. Reed, M.D.; M. Shurlock, Esq.; J. Simpson, F.R.C.S.; A. L. Smith, Esq.; F. C. Spackman, Esq.; J. J. Stack, Esq.; C. E. Steele, Esq.; H. B. Stoney, M.B.; J. H. Thomas, Esq.; R. Worrall, M.D.; M. Tuke, Esq.

Other smaller sums have been received from A. Macaulay, M.B.; J. Walton, M.B.; A. Pearse, M.D.

F. A. Mahomed, R. W. Burnet, } *Hon. Secs.*

THE ROGERS TESTIMONIAL.

The following is the eleventh list of subscriptions:—Dr. Henry Drinkwater, Sunderland, £1 1s.; C. H. Buncombe, Esq., F.R.C.S., City of London Infirmary, £1 1s.; Dr. Montague Thomas, Nottingham-place, Regent's-park, £1 1s.; F. Sadd, Esq., Rugby, £1 1s.; Dr. Milsome, Addlestone, 10s. 6d.; Dr. Robert Tiffen, Wigton, 10s. 6d.; E. Snell, Esq., Ketton, Stamford, 10s.; Dr. Turtle, Woodford, 10s.; Geo. Harrison, Esq., White Friars, Chester, 5s.; C. Read, Esq., Stradbroke, 5s.; Dr. T. J. Hughes, Woolwich, 5s.; Dr. R. T. Jones, Harlech, 5s.; Dr. E. T. Thompson, Wolston, Coventry, 5s.; W. Arras, Esq., Wetheral, 5s.; Dr. Lush Fyfield, Andover, 10s. 6d.; W. Moore, Esq., Stourport, 10s.

THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—H. R. O. Cross, Esq., A.M.D., £1 1s.; Dr. Robert Cross, £1 1s.; from India (per T. d'O. Partridge, Esq.), £5 5s. 10d.; Dr. W. C. Hoffmeister, £1 1s.; Dr. Wm. J. H. Lush, £1 1s.; G. E. G. Metcalfe, Esq., £1 1s.; Eustace M. Swanwick, Esq., £2 2s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25 Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street (hon. treasurer); A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens (hon. secretaries); or to Messrs. Coutts & Co., Strand.

NOTES, QUERIES, AND REPLIES.

Primary Examinations.—The following were the questions on Anatomy and Physiology submitted to the candidates for the diploma of member of the Royal College of Surgeons, at a meeting of the Board of Examiners on the 4th inst., when they were required to answer four, and no more, out of the six questions on each subject—viz., Anatomy (from 1 to 3 o'clock p.m.):—1. Describe the ligaments which connect the atlas and axis together, and also those which connect these bones with the occiput. 2. Describe the dissection required to expose the pronator quadratus muscle. 3. Describe the first rib. 4. Describe the position and relations of the liver, mentioning especially the extent to which it is covered by peritoneum, and the manner of its connexion with the walls of the abdomen and surrounding viscera. 5. Mention in their relative position the various structures which are exposed by removing the gastrocnemius and soleus muscles. Give the attachments of any muscles you may mention. 6. Describe the ophthalmic artery and its branches.—The following were the questions on Physiology (from 4 to 6 o'clock), viz.:—1. Give a classification of food-stuffs; state the changes which the proteids undergo during gastric and duodenal digestion. 2. What is meant by arterial blood-pressure? How is it modified locally and generally? 3. What are the sources of animal heat? Explain the mode in which a constant temperature is maintained in warm-blooded animals. 4. What is the structure and distribution of non-striated muscle? How does it differ in its mode of action from striated muscle? 5. Describe the microscopic appearances of a transverse section of the spinal cord. What are the functions of the parts you name? 6. Describe the normal rhythm of the respiratory movements. Explain the nervous mechanism by which it is regulated.

A Provincial Teacher.—Two hundred and eleven candidates presented themselves for the primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons on the 4th inst., against one hundred and ninety at the corresponding period last year. The names and the schools of the respective candidates are published in the *Medical Times*.

Mr. Thompson.—An examination for the License in Dental Surgery of the Royal College of Surgeons will be held in the ensuing month.

Dr. Edgerton, Middletown, Connecticut, U.S.A.—Letter and enclosure received with thanks.

A. G. Hakim, Esq., Mhaswad, India.—Post-card and money-order received with thanks.

Dr. Jacob Chunder Banerjea, Santipur, Bengal.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Mr. WM. BAIN, Southport; Dr. SAMUEL WEST, London; Dr. SHELLY, Hertford; THE SECRETARY, FACULTY OF PHYSICIANS AND SURGEONS, Glasgow; THE EDITOR, "OVERLAND MAIL," London; THE HON. SECRETARIES, ODONTOLOGICAL SOCIETY, London; Dr. G. E. HERMAN, London; Mr. A. WYNTER BLYTH, London; HON. SEC., MEDICAL SOCIETY, Charing Cross Hospital, London; HON. SECRETARIES, HARVEIAN SOCIETY OF LONDON; HON. SEC., MEDICAL SOCIETY OF LONDON; REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; The EDITOR, "BRITISH MEDICAL JOURNAL;" Dr. E. PAYNE, London; Messrs. BURGOYNE, BURBIDGE & Co., London; THE SECRETARY, ST. JOHN AMBULANCE ASSOCIATION, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. F. STONE, Wimbledon; Dr. J. OWEN, London; Mr. SHIRLEY MURPHY, London; THE SECRETARY, ROYAL INSTITUTION, London; Mr. J. HUTCHINSON, F.R.S., London; Dr. W. WELLS, New York; Dr. C. M. CAMPBELL, London; Mr. J. WICKHAM BAINES, London; THE SECRETARY, NAVAL SUPPLEMENTAL FUND, Admiralty; Dr. J. W. MOORE, Dublin; Mr. J. B. SCRIVEN, London; Dr. CULLINGWORTH, Manchester; SURGEON-GENERAL HUNTER, London; Dr. DONKIN, London; Mr. BELLAMY, London.

BOOKS RECEIVED—

A Contribution to the Study of Neglected Lacerations, &c., by T. A. Ashby, M.D.—Year Book of Pharmacy for 1883—The Sanitary Chronicles of the Parish of St. Marylebone for November, 1883—Dangers of Defective Drainage, by Alfred Hill, M.D., F.S.C.—St. Thomas's Hospital Reports, vol. xii.—A Manual of Nursing, by C. J. Cullingworth, M.D.—Transfusion im Letzten Decennium, von Ernst Von Bergmann—Statistical Report of the Health of the Navy for 1883—Report on the Recently Increased Death-rate of the City of Newcastle-upon-Tyne—The Medical Annual, &c.—Lichen Ruber and Lichen Planus, by A. R. Robinson, M.B., L.R.C.P., &c.—Consultations in Medical Practice, by Edwin Payne, M.D., M.R.C.P.

PERIODICALS AND NEWSPAPERS RECEIVED—

Revue de Chirurgie—Revue de Médecine—Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynakologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record—Edinburgh Medical Journal—The Glasgow Medical Journal—The Birmingham Medical Review—The Medical Temperance Journal—Coupe Rendu Général—The Newcastle Daily Journal—Maryland Medical Journal—The Western Medical Reporter—Sanitary Journal, Ottawa—The Ophthalmic Review—The Journal of Nervous and Mental Disease—The Practitioner—Archives of Pediatrics—The Medical News—The Australian Medical Gazette.

APPOINTMENTS FOR THE WEEK.

14. *Monday.*

MEDICAL SOCIETY. Mr. Pick will read a paper "On Amputation at the Knee-joint, by means of Lateral Flaps." Professor Alexander Ogston (of Aberdeen), a paper "On a New Operation for Flat Foot." Dr. Day will show a case (in the Library)—"Pulmonary Stenosis in a Child."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 40, Leicester Square, W.C.—The Meeting of the above Society wrongly announced for January 7th, will take place Monday, January 14th, at 8 P.M.

15. *Tuesday.*

ROYAL INSTITUTION, 3 p.m. Mr. R. S. Poole—"Coins and Medals."

17. *Thursday.*

ROYAL INSTITUTION, 3 p.m. Professor Pauer—"Music for the Pianoforte, &c."

HARVEIAN SOCIETY OF LONDON, 8.30 p.m. Annual General Meeting; President's Address; Election of Officers; Conversazione.

18. *Friday.*

ROYAL INSTITUTION, 9 p.m. Professor Tyndall—"Rainbows."

THE MEDICAL SOCIETY OF CHARING CROSS HOSPITAL, 8 p.m. Mr. C. W. Heaton, "On some Points in Urine Analysis."

19. *Saturday.*

ROYAL INSTITUTION, 3 p.m. Professor Morley—"Life and Literature under Charles I."

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MEDICAL TIMES

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CLINICAL LECTURES

By J. MATTHEWS DUNCAN, M.D., F.R.S.,

Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

LECTURE IV.

ON SOME MINOR AILMENTS.

WHEN I use the term "minor ailments" to designate the subject of this lecture, I take the physician's, not the patient's, point of view. To her the matter in hand, however slight in the physician's estimation, is most interesting and important, and cannot be, without care, spoken of as minor. Such ailments may be painful and grievous while they last, but they do not destroy general health, and they are not fatal.

Patients are often very inquisitive into the causes and nature or importance of diseases, and physicians are sometimes too facile in naming them, or in concurring with patients regarding them. Here, as on many other occasions in the course of medical practice, the physician should be firm in adhering to pure truth, not forgetting that all kinds and degrees of falsehood, all half-true statements, even when made with good motives, all statements, true only as so many words, should be avoided, should also be abominable in his eyes. It is true, and never to be forgotten, that a lie is always a lie, and never does the greatest good, now or in the future; always does harm, now and in the future. Never allow yourselves to be shaken in these principles by desire of any kind of time-serving. Great medical men have boldly taught that the physician may not only conceal the truth, but, in certain circumstances, declare a lie. I avoid mentioning the name of one most highly respected, who advises this course in the case of cancer of the liver, asserting that the entertainment by the patient of false views as to the nature or danger of his disease, will materially and favourably modify its course, and secure temporary ease of mind for him. The pathology, therapeutics, and morality are, I believe, all most bad: experience has taught me quite otherwise; and, besides, if you allow yourself to lie once, why not ten times? There are cases in casuistry in which you may be driven to make a statement that is not true, but they almost never occur in medical practice; and the only justification of this conduct is the avoidance of a graver falsehood, for there are degrees of importance of lies. You have it always in your power to be silent, and it is scarcely possible to construct a lie out of that negative. If you wish to impress your patient with a due sense of the gravity of her case, you may do so without bluntly surprising her with a terrible announcement, as by calling a consultation, or using some other such indicative or preparatory measure.

I make these statements preliminary to some remarks on minor ailments, because it is more frequently in them than in graver ailments that patients are injuriously, and, I am sorry to say, often cruelly misled.

I have said that patients are often ingenious and inquisitive as to causes: the physician is most anxious to forecast consequences. With this forecast or prognosis, so far as he is concerned, I have now nothing to do. But his patient is sure to ask questions regarding

her fate, or to argue regarding the gravity of her case from his expressions, oral or other, and from his conduct. In every case a physician is instructing his patient regarding her disease; and if he instruct her badly, he may cause her much evil. In the case of minor ailments it is common for this evil to be produced by an exaggerated anxiety, or by a costly and perhaps fussy and frequent interference of the physician. Many minor ailments are in this way generated or aggravated, or rendered inveterate—cases that a little kindly consideration and careful conversation would dissipate, are changed from molehills into mountains.

You will meet with cases of amenorrhœa in healthy girls, whereof the cure is sought with an enthusiasm that is explained only by perhaps accidentally finding out that the patient or her guardian regards it as a disease of the highest degree of gravity. A woman with no uterine complaint whatever, and in perfect health, is told that her womb is displaced, and immediately she is transformed into a great sufferer eager for cure, willing to endure the martyrdom of enforced rest and local treatment to gain what can never be gained in that way; she has been badly instructed by her physician, and this bad instruction will render her return to health a matter of great difficulty, a result to be secured only by overthrow of her confidence in her previous instruction. Cases are quite common where women have great pain and misery, which are entirely "imaginary" as they say, yet real, and which are cured at once by the assurance pressed into their minds that they have not cancer—by their abandoning an erroneous idea.

There are many minor ailments, chiefly in the form of aches or pains, for which the best treatment is to coax the patient into neglect of them. Let them alone as far as possible, for the more attention is drawn to them the worse they will be, and the longer will they last.

To deal wisely and boldly with minor ailments, it is necessary that you should previously make yourself well assured as to their nature—that they really are minor, and, if possible, exactly what they are. Often you cannot ascertain what they are, while various conditions of them satisfy you that they are minor.

Neuralgia of a Labium.

I have never seen any neuralgia more intense than that of the cord in the male. One case in a clergyman I can never forget, it was so very severe. In woman I have only seen it distinctly a few times. The worst case was that of a stout old lady liable to bronchitis and asthma. In her it came only occasionally, but when it did come it was so severe as to cause much alarm; the pain ran along the cord or rather the round ligament in the right inguinal canal, and was most severe in the corresponding labium. It was soothed by kind attention, hot bathing being generally used, sometimes anodyne applications to the skin.

Commencing Hernia.

All pains about the external inguinal opening are not neuralgic, nor inflammatory. I remember well the case of a sensitive young lady whose pains had been very puzzling to her physician, who had reasons for avoiding strict local inquiries. She was indeed sent to me to have these inquiries made, because much and varied treatment by medicines and rest had failed to give any relief. The pain was confined to the region of the femoral opening on one side; rest removed it, exertion induced it, coughing made it worse; and a strong impulse was felt in the part by the hand applied when a deep cough was made. Knowledge of the seat and cause of the pain was nearly enough for its cure; and complete relief was got by wearing a truss. Cases of a like kind are not very rare.

Neuralgia of Bone.

When a bone of the pelvis has been injured, the part, sometimes after complete recovery so far as manipulative examination is concerned, retains a morbid sensitiveness or weakness. It is not swollen; but it is liable to ache severely or be painful. Cases of this kind in bones of the limbs I have known to be successfully treated by laying the bone bare by knife, raising the periosteum, and gouging or chiselling off the surface of the affected part. In my cases I have not resorted to this, and I may best and most briefly tell you all I know of the matter by giving a few details of two.

A fine healthy young woman had a first labour, managed by a skilful accoucheur, natural in all respects, except that delivery was completed by short forceps. At the time of delivery nothing special was noted as to wounding; but the patient felt a deal of pain in the private parts, on the left side, during all her recovery. She got up, however, and was well and strong; but as soon as she began to walk, the pain in the left labium recurred, and was increased in severity as she increased the use of her legs. The pain was now ascribed to weakness, now to falling of the womb, now to ulceration, and was treated accordingly, but with no good effect. Careful local investigation discovered the labium to be internally cleft, and the deepest part of the cleft quite healed, healthy looking, but adhering to the descending ramus of the pubes. The bone was scarcely tender, but whenever it was touched, the patient at once, and again in subsequent examinations, declared that that, and that alone, was the seat of pain. The bone was occasionally tender after great exertion, as in dancing: it was always and exclusively the seat of the aching pain. The labium had been cut by the anterior margin of the left blade of the forceps, and healing had taken place with adhesion of the cicatrix to the subjacent bone. Complete satisfaction as to the seat and nature of the disease was half the cure. Avoidance of long walks and of much dancing, hot bathing at bedtime, tonics, iodide of potassium, were all used, and did not bring quick relief. It was not till these cures had been continued more than a year that the whole matter was forgotten. Now she never feels it.

A middle aged woman, a clergyman's wife, was thrown out of a little pony phaeton, and fell on her sacrum. After the accident she had continued pain in it for a long time; and the pain recurred after intervals of health varying in length. When it came, she felt the part to be a little tender, but not swollen. Latterly, after some years, she was led to believe that now her suffering was not from the injury, but from some disease of the womb. Then she consulted me, and it was very easy to make out that the pain was in the bone, exactly where the injury had been inflicted. There was no uterine disease, and the conclusion was inevitable that the case was one of neuralgia consequent on mechanical injury. With assurance on this point she was quite satisfied, and went away with some directions as to treatment when the aching came on.

Perhaps this disease should be called chronic ostitis, not neuralgia: I do not here attempt to decide.

Rheum of a Sacro-iliac Joint.

This disease is common, and often mistaken as a sacrache, and as indicative of some uterine or ovarian affection. I know it well, for I frequently suffer from it, generally in the right, rarely in the left, less rarely in both. It is a rheumatic ache, sometimes nearly as commanding as a bad lumbago, produced by any bodily movement that causes pressure on or movement of the joint. When a woman has it, she attributes much importance to it, not as a pain, but as an indica-

tion of some latent internal disease of which she has alarm and dread, naturally fostered by ignorance. When she comes to you, you must carefully investigate it, and give her good information and advice.

It is not enough to make out that the region of one or other or of both joints is the seat of pain, for ovarian disease may cause that; nor is it enough, even if, in addition, the pain is aggravated by the erect position or by walking, for that may be also a reflex of ovarian disease. But if, still farther, you find the joint is tender, perhaps a little swollen; and if you find that the least movement of it causes pain, you may be pretty well assured; and you hold the case well ascertained, if you find, on examination of the pelvic excavation, that there is there no disease to account for it. In this affection, your examination discovers ordinary, not surgical, or morbid, mobility of the joint; and when describing looseness of the joint, I told you how to make out its mobility. One source of error in this examination you must note, namely, that the pain is induced by pressure on the anterior iliac spine, and the woman may say the pain is there; but, with care, you make out that the pain is only produced by such pressure on the anterior iliac spine as moves the bone at the sacro-iliac joint, and that pressure on the ilium that does not move the joint is not painful.

Nodes of Connective Tissue.

These are indurated masses, not very hard, irregularly rounded or spindle-shaped, of size varying from that of a bean to that of a hazel nut, generally painless, sometimes tender. There may be only one, or several may be in the same neighbourhood. They have not the characters of neuroma. They may disappear as they come, without known cause.

This disease I have rarely seen, and, as far as I know, it has no direct practical importance, except when the little masses are tender, or when the patient happens to find them, and becomes anxious as to their cause and nature.

We had lately a case in "Martha." The woman had been long in the ward suffering from parametritis and the albuminuria which occasionally accompanies it. She made a good recovery, and, before going away, called attention to little tender lumps. They were three in number; two just above the posterior superior spine of the ilium on the right, and one a little higher on the left.

I have seen a case in which they were situated in the subcutaneous cellular tissue over the sacrum and adjacent part of the hip. In another, the node was the size of a pea, and situated a little above the middle of Poupart's ligament.

Perineal Sweating.

In inveterate cases, however much they may be minor, it is necessary to enter minutely and carefully into every particular, and this is true of none more than that of "whites." A patient will add as a tail to her case that she has whites; or she will say she is cured, all except whites; or she will complain simply of very bad whites. By this she implies that she has a large amount of unhealthy discharge from the vagina, white or nearly white; and this she fears, understanding that it is very dangerous, or at least weakening. Probably also she has used many diverse lotions without avail for a lengthened period.

Now it is common to find that this case has been quite misunderstood, and consequently mismanaged: examination by the speculum discovering no mass of mucus or the matter of whites, no such quantity as would cause discharge. It is indeed not rare, with such complaint, to find the passage drier than natural. Such women it is sufficient to tell that they have no whites, that there is nothing to be cured, that they should give up the use of injections of every kind; and it is good to add that, if all proves not to be right, the patient should return with the whites present, and with the diapers worn, or any evidence of the presence of the disease.

When she comes back, you may find that she has had some whites after a long walk or long standing—a result which is scarcely to be deprecated. Or you may find some superficial irritation of the vestibule or vaginal orifice, from which a white or non-purulent discharge has come, and which may be easily cured by an appropriate application: and the same may be said of some eczema of the pulva. Frequently all she produces is a cloth damp with perineal sweat, and often also stained brown by it. Lately we had in "Martha" an aggravated case of this kind from a distant county. As we could find nothing, the woman was pressed to produce the evidence of her disease for which she had been long treated, and which so alarmed her as to make her glad to encounter the inconvenience and expense of coming to the hospital. She said it came on when walking, and she was accordingly sent to walk; and, with an air of triumph, she then showed a diaper with a small brown stain of feculent odour. The woman was quite simple and ingenuous, and believed that this stain was vaginal whites: it was plainly some brown mucus from the anus.

When women get fat and sweat freely, they often have such moisture about the anus and genitals. This is very disagreeable to them, and, unless correctly instructed regarding it, they are easily induced to believe it is morbid, and the result of vaginal or uterine disease. Both men and women, however careful and cleanly, have their linen moistened and often stained brown, especially if they have walked much; and such discharge a woman is easily led to believe to be whites, and an indication of disease of the womb.

Sudden gushes of watery fluid on the linen are sometimes otherwise explained. Not very long ago a patient consulted me for this, believing that it came from an ovarian cyst, and required constant treatment to prevent the cyst closing. I could find no disease by local examination; but I was also told that when it occurred the patient was very alarmed and nervous, and this led me to suspect it might be urine. The fluid was collected in a cup, and found to have all the qualities of urine. The diagnosis, communicated to the ingenuous patient, that her disease was merely nervous discharge of urine, was enough for her cure, and she went away rejoicing.

But I must further add, that some sudden copious watery discharges I have been quite unable to explain, and have tried to satisfy myself by supposing they were from the glands of Cowper. The neck of the womb may suddenly secrete copiously, but the secretion is very viscid and not in such large quantities, so far as I have observed, as to explain the gushes I am speaking of.

Cases of this kind may be, sometimes, minor examples of hydrops tubæ profluens. This is a disease probably more frequent than is generally supposed, but certainly very rare in its distinct and greater forms. A case lately came under my notice where the gushes of watery and slightly viscid fluid were great, and had a general history as follows: — Gradually increasing hypogastric pain and general constitutional disturbance, then copious flow from vagina and relief for a varying length of time. When the woman was at ease there was to be found only an enlarged uterus: when she was in pain, and before the discharge, there was distinctly connected with the uterus, and lying on its left side, a large and increasing tense and somewhat tender cyst.

Sacrache and Back-ache.

There is no more common, and therefore no more important, symptom of uterine disease, and especially of disease of the neck of the womb, than sacrache. The pain is dull, or an ache rather than pain : it is situated at or near the base of the sacrum ; and, referring to it, the patient puts her hand to the part. I say with emphasis "at or near," and it is desirable to make this more definite. A pain below the middle of the sacrum is not at or near, and a pain above the middle of the lumbar spine is not "at or near." Such pains and aches do not point to the womb as the characteristic sacrache does ; but the characteristic sacrache only points in that direction : it is not, in itself, nearly sufficient, not even strong, evidence of disease of the womb. Occurring in a virgin it would not, alone, unless very severe and inveterate, lead you to make an actual examination of the womb.

Other back aches, that is pains in other regions of the back, not the sacrache, may accompany uterine disease, but do not point to the womb, are not symptoms rationally held as indicating womb disease. Unfortunately women are, at present, so under the influence of bad medical instruction, that they regard all pains in the back, from the occiput to the coccyx, as nearly sure indication of uterine mischief, and demanding uterine treatment.

The sacrache of womb disease may be constant, but generally it comes and goes. Frequently it is dispelled by lying, is felt on going to bed, and has disappeared before morning, and long standing makes it reach its highest pitch. When it is otherwise, that is when the ache is worse in the morning before getting out of bed, or is relieved by walking, then it is certainly not uterine.

I have said that you must not regard all sacraches or other back aches as uterine. They are common in men and in women. A weakly woman, who attends to all her pains, can do no standing or walking without back ache, and often it is a sacrache ; especially, if she has a long back, will she suffer in this way.

The pains liable to be confused with real sacrache are all in the lower back, about the lumbar spine : it is only such that might mislead any rational physician. Regarding them you will get some light from noticing the causes of the same pains in men. Now I find that weakly men are liable to these aches, sacral or lumbar, on walking or standing ; and in many they are produced by excessive venereal indulgence.

ON THE CONSTANCY OF OUTBREAKS OF MALARIAL FEVER UPON DISTURBANCE OF THE SITES OF OLD CITIES.[1]

By EDWARD ATKINSON, M.R.C.S, F.L.S.,

Surgeon to the Leeds General Infirmary, Lecturer on Surgery at the Leeds School of Medicine, &c., &c.

For many years past it has struck me that the revived interest in the exploration of ancient sites, which in our generation has been so remarkable, whilst it has given rise to numberless theories and speculations of an antiquarian kind—to be confirmed or refuted, more or less, by excavations on the spot—has at any rate been the means, as often as such excavations have been made, of bringing to light one fact which was not anticipated.

In all the great centres of civilization, no matter what the physical character of the site, as to elevation or geological formation, so soon as pick and shovel have been set to work, one uniform result has happened—viz., the occurence of malarial fever amongst those employed. Sometimes the cases have been few and scattered ; sometimes the outbreak has been general, and shared not only by the excavators but by the surrounding population—has become epidemic in fact. Sometimes the fever has been in the form of an ordinary intermittent ague, which slowly but surely deteriorated the powers of its victims, and from which the only escape, though kept under for a time by constant doses of quinine, was a change of climate. Sometimes, however, the attack has been of so malignant a type as to kill quickly and certainly. Not a few valuable lives have been sacrificed in this way to their devotion to archæology.

My object on this occasion is merely to bring together a few well-attested instances of this apparent connection between the breaking of ground, occupied long centuries ago by dense populations, and the immediate occurrence of fever. Secondly, to point out the diversity of the sites on which the same results have followed. And, thirdly, to offer an explanation, however crude, of the phenomenon.

I.—Among the homes of malaria there are few more notorious than Rome. Here malarial fever may be said to be endemic throughout the year, though most prevalent from July to October. This has been generally referred to the emanations from the marshes of the Campagna ; and the well-known "stinking fogs" which prevail in the autumn are supposed, I believe, to owe their malignant breath to the effects of the first rains which fall on decayed vegetable soil, after the long drought of summer. But when we reflect that Rome has been continuously inhabited for over twenty-six centuries, and that the population, which now numbers only 300,000 (and which on the entry of the Italians in 1870 was only 220,000), was in the days of Claudius Cæsar (*i.e.*, including the suburbs) nearly, if not quite equal, to that of modern London—being stated by Livy at 3,968,000,—we can readily imagine to how great an extent the present soil of the city consists of animal matter. There are now large tracts of ground within the walls unoccupied, which were formerly covered densely with dwellings. Wherever this ground is broken for the erection of new buildings—as when a few years ago, on the accession of the new regime, a whole quarter, which had lain desolate for centuries, was laid out in new streets and boulevards—fresh outbreaks of malarial fever are sure to occur ; and this was abundantly noted by newspaper correspondents at the time. When, some years previously. the Forum was excavated for the purpose of archæological research, the same fact was observed. And when I was in Rome at the end of May, 1856, there was much fever prevailing, and people looked forward with apprehension to its type becoming more severe as the year advanced.

At Naples, I believe, identical conditions are observed, but as that city is more stationary, fewer opportunities arise for disturbing old sites. While, on the opposite side of the bay, the extensive excavations at Pompeii have been but little interrupted by fever—and this I interpret as a direct confirmation of my theory ; for the manner of its destruction, together with a large proportion of its inhabitants, was practically a holocaust, or wholesale cremation.

If we now travel Eastwards, we gather similar evidence from all the explorers, as well as residents among the ancient cities of the Levant.

Athens, Corinth, Constantinople, Tarsus, Smyrna, all yield testimony to the coincidence. It is true that in all these places fever of a malarial type is endemic ; but in the last-named city, where I lived for fifteen months, I had an opportunity of personally observing the fresh outbreak of a severer form in connection with

[1] Read before a recent meeting of the Leeds Priestley Club.

digging the foundations of a new synagogue in the oldest part of the town.

Ephesus is a notorious fever nest, and indeed no one can now live there. Its modern representative, Ayasaluk, a miserable hamlet two miles off, though having a somewhat more elevated situation, has not a single healthy-looking inhabitant. But Mr. Wood, who so laboriously and successfully excavated on the old site, in search of the Temple of Diana, abundantly testifies to the difficulties he and his workmen encountered from malarial exhalations on the site which, 1,600 years ago, supported a busy and energetic population of many thousands.

Again, in the Troad, we learn the same from Dr. Schliemann, when working at his excavations on the top of the hill of Hissarlik, with 120 men. He has reached a depth of thirty feet through the dry *debris* of three or four successive cities, when he exclaims: "I will not say anything about our mode of life here, where everything is wanting, and where we have to take four grains of quinine every morning as a precaution against the pestilential malaria." Further on, writing in November, 1871, he says: "The constant warm damp weather produces a very malignant fever, and my services as a doctor are daily sought—fortunately I have a large stock of quinine, and can thus help everyone. . . . . I generally give four doses of sixteen grains. Thus far I have cured all who applied; not one, however, has ever come to thank me—indeed, gratitude does not appear to be one of the virtues of modern Trojans!"

During my own residence of four years in Jerusalem, *before* the Palestine Exploration Society commenced its operations, I had especial opportunities for comparing the ordinary endemic intermittent—which constituted by far the largest proportion of all the cases of illness that came under my care—with the severer and often more fatal form of fever which occurred from time to time in connection with the digging foundations within the walls. The city is said to have been rebuilt seven times on the same site, and the consequent accumulations of *debris* are enormous in depth, varying from 30 or 40 feet on the hills, to 120 or more in the valleys which intersect them. Whenever old rock-cisterns, which have been used for the storage of rain water from time immemorial in Jerusalem, and many of which have been buried and unused beneath ruined houses for centuries—whenever these were uncovered and cleared out for use, or whenever excavations had to be made down to the rock for laying foundations (as in the case of the large new Austrian Hospice, built in 1858-59), the type of fever excited among those employed, especially if they were not natives, and sometimes among the surrounding population, was far worse than the ordinary run of cases. For seven months in the year, from the beginning of April till about the 20th October, *no* rain falls, and there is a complete absence of running or standing water (excepting two closed "pools" or tanks) either in the city or its neighbourhood, so that the soil consisting of old *debris* is perfectly dry, and when a pit or shaft is sunk, the sides *run like water* from mere want of cohesion. In these excavations, for some time after their first exposure, I have often noticed a peculiar sickly odour, unlike anything else—but the very recollection of it vividly recalls the sensation to my imagination.

Captain Conder, R.E., in recording the death of Mr. Tyrwhitt Drake in Jerusalem, in June, 1874, says: "The death of Drake adds one more to the list of those who have fallen in harness in the exploration of Palestine. The fatal Jordan Valley climate took one member from Lieut. Lynch's party. Dr. Tristram's expedition did not escape a similar calamity. The exploration of Jerusalem cost the life of one of Captain Warren's men, and the health of another. We had trusted that in the serious illness which obliged Captain Stewart to resign the command of the survey, our debt to the country was paid . . . . . but it was not to be so."

The reference to the deadly climate of the Jordan Valley, induces me to remark, that although the climatic conditions are the very opposite to those of the dry and lofty site of Jerusalem, yet there is much more than the deeply depressed valley, the luxuriant vegetation, and steamy atmosphere to account for its fatal reputation; as for many centuries the whole plain was dotted over with towns, and supported a dense population.

In his account of his lengthened operations at Nimroud and Kouyunjik (the site of ancient Nineveh), Layard does not lay stress on the occurrence of fever as a result, though his casual references are enough to show that he and his men did not escape its effects.

Canon Tristram writes me: "At Carthage, directly they began to excavate in 1857, fever of the malarial type broke out, though absolutely unknown there before. In Algeria this has been," he says, "most remarkable. Everywhere, on re-colonizing an old site, though desolate for 1,500 years, deadly fever has broken out, even in the driest situations. I am not aware that it ever appeared on *new* and virgin localities. For example, in the Plain of the Metidjeh, behind Algiers, a plain quite dry and overrun with the dwarf palm, the French, soon after the capture, settled Buffarieh on an old Roman site, and about 1840 also Blidah, another Roman town. The Metidjeh was healthy elsewhere, but in these two places the fever was most malignant. Convicts were employed to clear and cultivate Blidah, and it was said the population was thrice buried in three years! The fever continued for about four years longer, but cultivation was persevered in, and now for many years past the orange-girt town of Blidah has been the sanatorium of Algeria, and fever unknown. The same thing occurred at Thebeste, the ancient *Thogastum*, in Eastern Algeria, and at Lambessa. In fact I know of no case in North Africa where re-occupation has not evoked malarial fever, unknown until the soil was upturned—and this quite irrespective of wet or dry; sand, clay or rock. It surely must be that the mass of decayed matter, accumulated where man resides for long, needs to be constantly in contact with the atmosphere, in order to neutralize its poison; and that it retains its noxious properties when buried in the earth for an unlimited period."

II. The great diversity of the sites which I have referred to, whether regard be had to their elevation—their geological features—their proximity to, or distance from the sea—their moisture or dryness—their alternations of seasons, or more uniform sub-tropical climate—their abundance of vegetation, or almost absolute sterilty—must, I think, lead to the conclusion that the physical conditions of the localities have little to do with the production of the poison—call it "malaria," or what else we choose—which causes these outbreaks of fever whenever the soil is disturbed for the first time on the sites of dense old-world populations.

Rome, with its great river rolling through its midst, and surrounded by the level alluvial expanse of the Campagna; Carthage, on its gently sloping limestone situation, a few miles from the sea; Troy, Corinth, and Athens, all standing more or less on hills, though with plains around; Constantinople, rising from the shores of the Bosphorus, but with no large fresh-water stream near it, and not any excess of vegetation in its neighbourhood; Jerusalem, standing on a plateau of dry mountain limestone, 2,500 feet above the sea; Jericho, in a valley watered by many streams, and at a depth of 700 ft. below the sea level, with luxuriant vegetation around; the mounds of Nimroud and Babylon on the banks of the Tigris, with a broad expanse of hot alluvial plains, partially cultivated, but almost treeless;

*

all agree in this—that malarial fever, whether it be endemic or not, is sure to attack those who break through the old crust which covers the remains of the past.

III. It would be out of place for me to discuss here the various theories which have been advanced since the days of Lancisi, of Rome ("De noxiis paludum effluviis," 1695), down to Sir Joseph Fayrer, who, in the spring of last year, gave an exhaustive account of "The Climate and Fevers of India," in his Croonian Lectures before the Royal College of Physicians, and reviewed therein the explanations of the origin of malaria, offered by a host of writers during the last two centuries.

The generally received theory was, that where there is much heat and moisture we usually find much and rank vegetation, and much vegetable dissolution and decay. "Therefore," says Sir Thomas Watson, "the belief was as natural as it was general, that the putrefaction of vegetable matter was somehow or other requisite to the formation of the poison that exists so commonly in swampy situations. Yet very strong facts have been adduced to show that vegetable decomposition is only an accidental accompaniment of the miasm, and not by any means an essential condition of its evolution. Decomposition of vegetable matter goes on," he says, "abundantly in hot weather without producing malaria—witness the rotting cabbage-leaves in Covent Garden, or the neglected dust-bins of London (1843); or the putrefying and offensive heaps of seaweed on our healthiest coasts." But to show the converse, he quotes Dr. Ferguson, whose experience was gathered in Spain during the Peninsular War, and who shows that the peculiar poison of malaria may abound where there is no vegetable matter to decay. He then proceeds to combat the theory of putrefying animal matter being a necessary element in the production of malaria, by pointing out that a similar argument might apply to it also in many cases. He even goes so far as to say, "I hope to prove that neither animal nor vegetable decomposition is sufficient to generate fever of any kind!"

With regard, however, to the specific form—for I believe it should be deemed so—in which the elements of malaria exist in the soil of old inhabited sites, and where its development depends not so much on the *drying up* of the soil after rain (as is so undoubtedly true of many situations where the poison is traceable to comparatively recent conditions), as to its being *disturbed*—dug up and exposed for the first time to the air. With regard to this peculiarly malignant malaria of ancient sites, I believe it is due to the saturation of the soil with animal matter and animal secretions in a semi-fossil condition, so to speak. That whether or not there be any organic germs which can preserve their vitality for an indefinite period, when buried—and whether or not such germs, if they exist, owe their preservation to the abundant presence of nitrites, which become resolved or oxydised (and converted into nitrates) by exposure to the air; there must be a vast accumulation of nitrogenous compounds which have never been washed out by the rains, but which have lain festering for centuries, ready to work mischief to whoever stirred them up.

Since reading the above paper, I have been in correspondence with Dr. Lauchlan Aitken, of Rome, who has very kindly afforded me the following valuable information in corroboration of my statements:—

He writes . . . . "Before giving you details of the outbreak I refer to, I may mention that in all the excavating and digging required for the foundations of new houses, for the laying down of drains, or for the formation of streets, in parts of the city long unbuilt on, there are invariably cases of malarial fever among the workmen, and that not only in the summer and autumn, but also in the winter and spring, though the severity of the attacks depends very much upon the season of the year and climatal conditions existing. When the houses are finished, the streets paved, and the drains in action, these cases cease to occur. Any Government or municipal excavations going on, therefore, on a large scale, are restricted to the period from November to June; and in this way the number of severe cases thus originating remains very limited.

"The present excavations beside the Forum and just under the Palatine Hill are an instance in point—the workmen scarcely suffering at all, as they were only begun in November; and yet these are in soil probably untouched since the ninth century. A young Englishman, whom I saw the other day, got a slight intermittent attack from standing watching the digging going on . . . . . In 1874, when the excavations for the laying bare of the substructures and true area of the Colosseum were in progress, an English officer, who was watching the work one damp afternoon in January, got a very bad attack of malarial fever, which I could not trace to any other source; and I might tell you of many similar cases.

"But the epidemic outbreak of malarial fever to which I referred at the beginning of this letter, occurred in the summer and autumn of 1879, and was due to the works for the embankment of the Tiber. The excavations on the right bank of the river, just above the Ponte Sisto, and behind the Farnesina Palace, had been actively prosecuted for some time, when they were suddenly brought to a standstill by the opposition of the proprietor of that historic palace—a Spanish grandee—who maintained that the operations were endangering the building, and more especially the well-known frescoes of the Cupid and Psyche, and of the Galatea of Raphael. While the matter was before the law courts, all work was suspended, and a large extent of newly excavated soil was for long exposed to the air, rain, and sun. Numerous pools of water formed in pits and became rapidly covered with algæ. The season happened to be particularly favourable to the development of the germs of malaria (as was shown by the occurrence of fevers of this type at Rocca di Papa, a village on the slope of the Alban Hills, some 2,600 feet above the level of the sea, and where it is very unusual to see cases originate). The result was a great outbreak of fever of a very severe type, as early as July, in those districts of the Trastevere lying nearest to the Farnesina Palace. So alarming was the outbreak, and so rapidly did the number of cases increase, that the municipality, along with the prefect of the city, and the minister of public works, had to adopt very active measures. Several medical men were appointed temporarily for the district, and medicines, especially quinine, liberally supplied. The excavations were stopped for the time, any pits filled up, and large quantities of lime thrown in. The outbreak gradually diminished in intensity, and with the advent of winter disappeared; though the recurrence of some fatal cases in the following March renewed the alarm to some extent. Since that time no excavations for the Tiber Embankment have been permitted between June and November, and the works have been under constant sanitary inspection. A physician appointed by the municipality visits them daily, and when he finds any drainage or filling-up of pits required, or considers that freshly turned-up soil should be removed and lime thrown down, his orders must be obeyed. These precautions have had the desired effect, and no further outbreak of fever attributable to these works has been seen since 1879.

"Although the exact number of deaths directly

traced to this cause is unknown, yet it was probably considerable, as the following figures show :—

In 1877 there were	326	deaths from malarial fevers.	
In 1878	„ 294	„	„
In 1879	„ 481	„	„
In 1882	„ 298	„	„
In 1883 { First 8 months }	232	„	„

"My figures for 1880 and 1881 are incomplete."

These remarks of Dr. Aitken, under date of Rome, Dec. 3rd, 1883, form a most interesting appendix to the materials I had previously collected.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society of London.

(*Continued from page* 683 *of Vol. II. of* 1883.)

DISEASED CONDITIONS CONSEQUENT UPON MALARIAL CACHEXIA—*continued.*

Two of the most important developments of Malarious Cachexia are neuroses—*Neuralgia* and *Asthma*.

Malarious Neuralgia, in its various forms—*Facial* and *Hemicranial, Brow Ague* and *Intermittent Headache*—and neuralgic affections of other nerves, as the *Sciatic, Spermatic*[1], &c., are, with the exception of the last, much severer and far more prevalent results of malarial poisoning in England than they are in India. Although, in that country, we see neuralgia march side by side with paludal fever, this neurosis appears to be the special congener of those fevers of which strong ague is a marked characteristic.

Two singular forms of malarial neuralgia are, however, frequent in our Eastern possessions—*Burning of the Feet* and *Neuralgia of the Shins.*

The former affection was the subject of monographs by Drs. Grierson,[2] Malcolmson,[3] McKenna,[4] and Waring.[5]

It is, according to Waring, most prevalent in Arracan, Burmah, the Tenasserim Provinces, Penang, Singapore, and our other Eastern Settlements, less so on the continent of India, although it occurs there in the hospitals of native regiments. I never saw or heard of but one case in Lower Bengal. The patient was a fine-looking but rather thin Sepoy, who was sent from Fort William to be placed in my ward for observation. A high official came, inspected him with me, and asked my opinion. The man sat on his bed with his feet on a pillow, the soles being turned inward, so as to face one another for protection. The attacks were paroxysmal, and the soles could not even bear the contact of a sheet. I said that I considered it to be a case of Burning of the Feet, as described by Malcolmson. The reply was, "I never heard of Malcolmson, or of Burning of the Feet; I think that he is malingering!" A young medical officer, recently from Netley, who stood by, said, "I have read Malcolmson on Burning of the Feet." I added, "He is certainly not malingering; look at his agonised features and the beads of sweat on his forehead." I employed quinine and all other feasible means, but could do little for the poor fellow's relief. Grierson and Waring attribute this disease mainly to malarious influence. Mr. Playfair,[6] describes two forms of this disease as being commonly met with, both in the feet and hands—(1) in which the parts affected are in a constant state of moisture, from sudor; (2) the other, in which the extremities are dry, and sometimes scaly: but there are several varieties. In some, the feet only are affected; in others, the hands; in many, both hands and feet. In a few, the feet are dry, while the hands are bathed in sweat; but, in all, the disease is very distressing, generally preventing all natural rest, and disordering the animal functions in a remarkable degree. The patients describe their sufferings as nearly insupportable. Waring remarks upon the difficulty which has always been experienced in curing this disease. He considers that, as dyspepsia, with light clay-coloured yeasty stools, appears to exist in the majority of cases, our first endeavour should be directed towards establishing a healthy condition of the assimilative functions. Dr. McKenna relied much upon the liquor arsenicalis, in four-drop doses, and iron and quinine, where the exacerbations are distinct. As local applications, the leaves of *Mhíndí* (*Lawsonia alba*), strong solutions of opium and iodine, and aconitine ointment, are recommended by Waring, who, however, insists upon early removal of the patient to his native place. The detention of Sepoys in the Eastern Settlements often proved fatal.

Many ill-fed Bengalees suffer greatly from *Neuralgic Pains in the Shins*, which has been recognised as a disorder allied to Burning of the Feet. The patient sits, with a deplorable aspect, on his bed, with his knees bent up, and his feet flat and drawn under him, "hunkering" in the usual native manner; but he holds his hands protectingly on either side of his shins, with the fingers turned inwards, suggesting the notion that his tibiæ are musical instruments, the keys of which he would touch delicately, if they were not too sensitive. At my first station, one of my earliest patients was a prisoner in the jail hospital thus afflicted. Considering that the pain was rheumatic, I gave vinum colchici. In a short time, diarrhœa set in, then both corneæ sloughed. My compunction was extreme; and I fear that my sense of relief amounted to satisfaction, when, in a day or two, other patients, who had not taken colchicum, got sloughing of the corneæ. Gout not being prevalent in India, I have never prescribed colchicum since.

Dr. Morehead has a very interesting note (page 654) on *Paroxysmal Headache;* cases of *Hemicrania, Intermittent Cephalalgia*, and moderate *Brow Ague*, generally yield without any great obstinacy to quinine in Bengal.

I have not seen a great deal of *Migraine*, but, in Bengal, especially among men who overwork their brains, it is well marked, and is inclined to display periodicity. In one case it came every Thursday—this was not my case—but quinine did not appear to touch it. I saw cases of *Facial Neuralgia* distinctly marked, but few. My father, a naval surgeon, was, I believe, one of the first, probably the very first, who recommended large doses of quinine in facial neuralgia; and I consider it due to his memory to give a brief record of the facts. About the year 1810, he had charge of a French prison hospital ship moored near a salt marsh at Plymouth. His duty occasioned him extreme anxiety and vexation, and there he had his first attack of *tic*. His second attack was at Greenhithe, in the Kentish marshes, in 1823. Although I was a very young child, I have a vivid recollection of the strong man's almost intolerable agony. With desperate firmness he swallowed large quantities of cinchona powder, and got over the attack in a few days, but remained in broken health for months.[7] His

[1] Here pain usually depends on local organic changes—as in elephantoid disease.
[2] *Bengal Medical and Physical Trans.*, vol. ii., for 1826, p. 275.
[3] Work on Beri-Beri, Part 2, p. 40.
[4] *Madras Quart. Med. Jour.*, vol. i., p. 432.
[5] Ibid, vol. i., 1860, p. 300.
[6] *Beng. Med. and Phys. Trans.*, vol. ii., p. 280.

[7] I do not know whether it was he who met with the case of a poor woman, living in an English marsh, in whom the pain was so excessive for years that there was a hole in her cheek, through which the teeth were visible. Probably there was cancrum oris.

third and last attack (he died in 1847) was at Portsea—also then a malarious place—about the year 1831. This was a very severe attack. He then took quinine, I think in six-grain doses, repeated frequently, as the suffering compelled him. The cure was speedy. He, of course, spoke freely of his success to his brother officers, and, among others, to Dr. ——, a naval surgeon of considerable scientific acquirements. Some time afterwards, Dr. ——, being in a ship on the Irish station, heard that the Marquis of Anglesea was a martyr to facial neuralgia. He obtained an introduction, and was allowed to make trial of quinine. Either by a fortunate accident, or because the drug had temporary power as a nervine tonic, the effect appeared to be marvellous, and the Lord-Lieutenant knighted Dr.—— and settled upon him a very handsome life annuity. The disease, however, appears to have been reflex in this case, being attributed to the condition of the nerves in the stump of the leg which his lordship lost at Waterloo. In that and in other traumatic non-malarious cases of neuralgia, quinine entirely failed.

In very malarious places in India, as at Chittagong, ganglia, of no extreme sensitiveness, are apt to form temporarily in the course of nerves. In one of these cases a lash of cutaneous nerves, on the inside of the arm of a lady who had suffered much from repeated attacks of intermittent fever, was visibly enlarged with little spindle-shaped ganglia in the course of each nerve, after the manner of a branch of *fucus vesiculosus*. This condition disappeared after some years. In another very remarkable case which my friend, the late Dr. Allen Webb, showed me, there was a much larger ganglion, apparently of this kind, on the pneumogastric trunk on one side of the neck of a jewess in Calcutta. I have never seen a surgeon who had more complete use of his hands than Dr. Webb had, and he showed me that, by pressing this ganglion—not the common carotid — he could immediately render the woman insensible. The nerve and ganglion were not painful.

Malarious Spasmodic Asthma. — Dr. John Quincy noticed the occurrence of asthma, as a sequel of intermittent fever, in 1728.[8] Copland[9] speaks of asthma as appearing as a masked form of intermittent. "Malaria," says Dr. Theodore Williams,[10] "plays an important part occasionally in the causation of asthma." Early in its English history, Bengal became notorious for asthma. It is singular that this fact was the origin of the great Lord Clive's success in life. General Arthur Broome tells us,[11] that when, in consequence of the events which led to the catastrophe of the "Black Hole," a relieving force was ordered to proceed from Madras to Calcutta, in 1756, "the gallant Colonel Stringer Lawrence, who commanded the Company's force on the coast, was severely afflicted with asthma, to which it was feared that the fog and damps of Bengal would prove so adverse, as probably to incapacitate him from active duty. Under these circumstances, Colonel Robert Clive, the second in command of the Company's troops, was selected for this important charge."

Malarious asthma has been observed elsewhere in India. Dr. Morehead gives the following case—that of a Hindoo drummer, æt. 30, who had suffered for about eight months from intermittent fever and asthma, which was liable to return at intervals of 15 days. Emphysema was present. The paroxysms of fever and of dyspnœa increased together at night, and ceased towards morning. The asthma and fever ceased in three days, under the use of quinine in four-grain doses, with sulphate of iron and rubefacients to the chest. Dr. Morehead remarks, "This case is interesting from its bearing on the therapeutic fact that some cases of spasmodic asthma in India are most successfully treated with quinine and small doses of sulphate of iron during the absence of the paroxysm, and in these cases it is reasonable to infer that the asthmatic symptoms have been related to malaria as a cause. To determine the probability of a previous malarious influence, by enquiry into the history of the case, and the condition of the spleen, constitutes an important part of the examination of asthmatic patients in India. If there be good reason for suspecting it, quinine and iron are indicated, and a more favourable prognosis than in asthma under other circumstances, provided the emphysema is not great, may be entertained."

The following is another Bombay case by Dr. Murray:[12] "An officer, 12 years in India, who has for the last ten years suffered from asthma, fever, and other diseases, arrived here" (Mahabableshwar Convalescent Hill Station) "in the middle of April, having had ague on the journey; his principal complaint, however, was the difficulty in breathing, which for a long time used to affect him, chiefly at night (having all the characters of a regular fit of asthma, and rendering him totally unfit for duty on the following day), but latterly these attacks had continued throughout the day. With scarcely any medical treatment, this officer continued almost entirely free from asthma during a two months' residence here; having had only two slight paroxysms during the six weeks preceding his departure."

In Bengal I saw many cases in Europeans—five in medical officers of the Bengal Service, and one in a Madras medical officer. I only recollect two in natives —of European habits. Dr. Morehead says, that "It is sufficiently common in natives of India, more particularly in the cold and wet seasons of the year."

In nearly all the cases that I have seen or heard of, the disease has been contracted *in paludal situations, within the influence of the sea breeze.* In this respect, it therefore appears to march with elephantoid fever, which has never been known to originate beyond the habitat of the cocoa-nut tree. So much did I mistrust the influence of the sea margin, that about two years ago I endeavoured to persuade a brother officer, who still suffers occasionally from Bengal asthma, to seek change in a dry spot inland. He, however, went to the Undercliff. He arrived well, but after a walk over broken ground had a very severe attack; after this, while I felt that I had not quite sufficient facts to prove that the sea-side is not an eligible residence for the subjects of this neurosis, I had the privilege of mentioning my strong suspicion to Dr. E. Headlam Greenhow, who informed me that large experience has convinced him that many asthmatics are made worse by a residence at the sea-side. Dr. Greenhow has known many who, after escaping an attack of spasmodic asthma for long intervals, invariably had a paroxysm on going to the coast, even for a brief visit. This, he added, is not absolutely universal, for he has met with a *very* few exceptional cases. These exceptions may, I think, be due to the law that spasmodic asthma only attacks us *at its own time.* Thus, after I had got over an attack in India, I never feared that any circumstance would again call up the disease for months to come.

Then I have before me the facts that the friend to whose case I have alluded above urged upon me that, when at sea, he has always been free from asthma, and that I, in five voyages to and from India, never experienced the slightest symptoms of the disease. I am therefore induced to inquire whether, this disease being essentially paludal, and a large proportion of sea-side places having salt marshes in their vicinity, it is not probable that it is *salt marsh* air, not pure *sea*

[8] "Medico-Physical Essays of Agues," p. 350.
[9] "Dict.," pt. 3, p. 937.
[10] Quain, p. 50.
[11] At p. 77 of his "History of the Rise and Progress of the Bengal Army," a noble work too little known.
[12] *Indian Jour. of Medical and Physical Sc.*, vol. ix., p. 521.

air, which has caused such great affliction to many of us.

Considerable as the bulk of our medical literature on watering-places at present is, there appears to be room for a slender tract on the advantages of those few sea-side resorts which are free from marshiness. To seek refreshment in a swamp at the hottest season is rather the act of a buffalo or a wild pig than that of a circumspect, well-advised paterfamilias, who desires to afford the blessings of ozone and sea-water to his etiolated flock. It would be well, therefore, to guide public instinct in the right direction. I shall be grateful for notes on sea-side places which afford relief to the victims of neurotic asthma, and on British and other European watering-places which are free from marsh.

I am acquainted with the case of an aged lady who, residing near land reclaimed from the sea, was asthmatic for many years. Removing to a drier locality on the same coast, she has been wholly relieved.

As I have already mentioned, I became the subject of spasmodic asthma at Chittagong, a very marshy sea-side place, after I had begun to suffer from the most tenacious intermittent fever for which that spot is notorious. In the twenty-five cold seasons which I spent in India, I suffered from asthma in twenty-four. I was not constantly asthmatic, but I always expected to be attacked at the setting-in of the cold weather. Of late years, the dyspnœa was not extremely severe, but the attacks were more protracted than formerly, sometimes extending to six weeks, spasms giving way to bronchitis. In the first twelve years, I believe that I was repeatedly upon the point of death by suffocation. I felt convinced that I was becoming asphyxiated; and that spasm only relaxed when I was beginning to die from exhausted innervation. In ordinary attacks the dyspnœa was endurable as long as I was able to sit still. Returning to England after eighteen years' service, I spent eighteen months at Cheltenham, where I had a most violent attack of tertian ague and a severe attack of bronchitis, *but not the very slightest symptom of spasmodic asthma.* On returning to Bengal, I again became subject to asthma. In 1872 I came home, and resided for eighteen months in Bayswater, enjoying good health, *and not having a symptom of asthma*, except a vague threatening while staying at a malarious watering-place. The disease recurred on my return to Calcutta. I have now resided in retirement in Bayswater for nearly eight years. I have had more than one severe attack of bronchitis, and have experienced threatenings of intermittent fever; but *there has been no sign of asthma*, save an indefinite sense of chest uneasiness once at another watering-place, which, if not built upon a marsh, has extensive marshes on either side of it. I now avoid the sea-side. I do not in the least dread the atmosphere of the underground railway, and I do not think that a London fog distresses me more than it does other persons of my age.

In many Indian cases the amount of spasm is terrible. I was called in the middle of the day to see a youngish man, of European parents, born in Bengal, in one of my colleague's wards. He had all the appearance of being on the verge of suffocation. His epigastrium was tucked in, almost to his spine, by fixed spasmodic contraction of the diaphragm, and there was so much laryngismus that, for many minutes, I had thoughts of opening his trachea. I afterwards found that he was a very nervous, hysterical subject.

In my own and several other cases which I have seen, a few days' asthma leads to profuse bronchorrhœa, attended with great shortness of breath on exertion, which may continue for weeks.

Treatment.—My own case resisted quinine and most other reputed specifics. In the intervals I took long courses of quinine as a nervine tonic. My brother-officer, whose attacks were markedly periodic, was benefited by quinine. Alcohol was hurtful in my case, and gave me no satisfaction in treating others. When I went to Calcutta I obtained a fresh stramonium plant, about four feet high and bushy in proportion. As, in course of years, I smoked the whole of this—leaves, fruit and stem—it probably did me good; but the relief which stramonium-smoking gave me was not very considerable. Latterly, I used the English and French cigarettes. Touch-paper and sips of very hot unsweetened coffee gave some little relief. At first, being as much emaciated as an otherwise active man could well be, I starved, restricting my allowance of fluids and solids to the very utmost. Latterly, I took my usual diet, I think, with advantage. When ill, all acids, vegetable and mineral, made me worse. I believe that other Bengal asthmatics have been as fortunate as myself in escaping asthma on their return to England. In my own person, I have noticed a peculiarity which I have observed in three other cases—that the right lung is distinctly more troubled than the left, as if the liver and right phrenic nerve were participants in the neurosis.

In my own case, violent and continued morning attacks of sneezing, with profuse lacrimation, seemed to be an alternative of asthma.

Seeing that my own case covers thirty-three years, I do not think that, even when most obstinate, this neurosis greatly, or at least immediately, endangers the integrity of the heart and air-cells. But this, of course, depends much upon constitution and mode of life. The native brother-officer, of whom I have spoken, was considered, while in India, to have dilatation of the right heart. He came to England and succumbed more readily than he would probably have done otherwise to an attack of what it is now the fashion to term "pulmonary congestion," which I can only recognise as the first stage of double pneumonia.

Malarial Cardiac Asthenia.—This appropriate designation has been given by Sir Joseph Fayrer[13] to a state of the heart which is rather frequent among Europeans in Lower Bengal. Recognising the fact that malarious cachexia weakens muscular power generally, and especially tells upon the contractile force of the heart, and that chronic asthma tends to dilate the right heart, it might be supposed that cardiac asthenia would be a frequent attendant of malarial asthma; but this does not generally occur. A. has greatly deranged action of the heart, perhaps with habitual shortness of breath, but without spasmodic asthma; B. has asthma without cardiac distress. In fact these are separate neuroses which we do not expect to meet with in the same individual. The ordinary history of a case of cardiac asthenia is as follows:—

A European, who has been long resident in a malarious Indian locality, and who is anæmic, becomes the subject of præcordial uneasiness, This may be very slight, little more than a sense of "fluttering," or it may be so severe as almost to amount to angina pectoris. In aggravated cases, the patient starts up suddenly, just as he has fallen into his first sleep, with a sense of grave cardiac distress. In advanced cases, the cardiac muscular tissue having become weakened, there is functional dilatation (stretching) of the organ, as evidenced by increased area of præcordial dulness. There is generally shortness of breath in these and other cases of paludal anæmia. An irregular and intermitting pulse is characteristic of this form of cardiac asthenia. Seventeen years ago, I was myself the subject of a temporary disorder which appeared to throw considerable light upon the nature of this condition of the heart. In very pleasant, cool weather, I started

[13] "Croonian Lectures," p. 183.

with two brother officers from Gowhatte, in Assam, for Shillong in the Kasia Hills. I was in remarkably good health; we had ponies, and the trip was full of interest. After two or three days my pony broke down, and none of the others being equal to my weight, I had to walk. I was never in the habit of walking far, and had walked very little for many years. I now walked further, generally up hill, than I had ever done even in my youth. My heart's action has always been very quiet—almost to weakness. I now found that my pulse was very intermittent. I perceived that this unwonted exercise had stretched the heart's chambers, and it became a question—is this dilatation to be permanent? This was answered when I found that the pulse improved daily, became regular in less than a week, and remained so. Had I been a smoker, I should have anticipated this occurrence, as tobacco-smoking was evidently a powerful concurrent cause in many of the numerous cases of malarial cardiac asthenia which came under my observation. But, undoubtedly, this form of cardiac debility occurs in ladies, and in men who are not smokers. In all these cases I gave quinine and iron, and urged return to Europe for many months. In uncomplicated cases, when these measures are adopted early, recovery may, I think, always be predicated. I treated one of my worst cases, an eminent missionary, in 1856. He returned to Scotland in the following year, and has ever since pursued a very active career at home. When I saw him a few months ago, he appeared to be a perfectly healthy man of 66.

I do not think that *Hay Fever* occurs in India. I lately met an officer who suffered from this malady before he went to India, and lost it there. And I have seen more than one person who was violently attacked on returning from India.

(*To be continued.*)

NOTE ON THE TREATMENT OF SPINAL CARIES BY OPERATION.

By RICHARD DAVY, F.R.C.S.
Surgeon to the Westminster Hospital.

I HAVE read Mr. Treves' paper on "The Direct Treatment of Spinal Caries by Operation," brought before the Royal Medical and Chirurgical Society of London, and can endorse his views to a practical extent, as evidenced by my own practice. From my own surgical experience, and from facts observed at the mortuary, I have learnt to view with slight favour the opening of abscesses in connection with vertebral disease, and have taught that, as a rule, any such interference is fraught with inconveniences both to the patient and surgeon.

A man, æt. 38, was admitted into the Westminster Hospital in May, 1879, suffering from diseased lumbar vertebræ with deformity, associated with a large psoas abscess, which had burst below Poupart's ligament on the right thigh. I wished to ascertain, by making a dependent opening in his loin, if good drainage might not assist in promoting a cure.

On May 29th, 1879, having had a silver probe specially made, 20 inches long, I passed it through the abscess opening in Scarpa's triangle, along the sheath of the psoas muscle, towards the right loin with care; and without any difficulty I could feel exposed bone. Having withdrawn the probe, and made a short bend at its point (45°), I reintroduced it along the psoas sheath, until it touched the top of the abscess-wall, directing the point of the probe towards the loin. I then cut down on it, introduced my forefinger through the lumbar wound into the abscess sac; felt the denuded bone, and washed out the detritus with a stream of warm water through the tunnel from the right groin to the loin. The lumbar wound was maintained open by a drainage anchor. The patient was discharged with both wounds healed; but the old abscess-opening in the groin seemed inclined to re-open on his assuming the erect posture. When compulsorily pressed to open a psoas abscess, I have always chosen the loin as a point of selection; being unable to see why a lumbar abscess should have the honour of exemption from ordinary surgical custom; viz., a large dependent opening for the promotion of cleanliness and good drainage.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE OF ACUTE DIABETES.

(Under the care of Dr. WILKS, F.R.S.)

(Reported by W. S. AUDLAND, M.R.C.S., Eng., L.R.C.P., Lon.)

THOS. O'L., æt. 23, was admitted into John Ward on October 31st, 1883, for glycosuria. Patient was a clerk, but for the last year has been out of work, and so has been living very badly.

Family history and personal medical history both good.

About a fortnight ago patient began to feel weak, and suffered from much lassitude, which he put down to his half-starved condition. A week ago he began to suffer from great thirst, and noticed that he passed a large amount of urine. Before that he had never been obliged to get out of bed to pass his urine, nor was it excessive in quantity. His appetite was not ravenous. He slept badly, but felt drowsy. His extremities were frequently cold. He has lost flesh rapidly during the last fortnight. He has had no fits, nor loss of consciousness.

Condition on admission.—Patient looks thin, ill, and miserable. His skin is cold, dry, and rough. Tongue bright red, dry, and cracked. His muscles are somewhat wasted. He complains of great thirst and hunger. Breath has a sweet, hay-like odour. There is slight œdema of legs and ankles. Patient passed during the first 18 hours he was in the hospital 92 oz. of urine, sp. gr. 1·033, light-coloured, acid, no albumen, sugar 16 grains per fℨ.

Heart and lungs normal. Mental power good. Temp. 98·6° F.

Patient was put on diabetic diet, and his general condition somewhat improved. He went on passing a large amount of sugar daily.

November 3rd., 5.15 p.m.—Called to patient and found him with cold extremities. T. 94·8° in axilla. P. 120. R. 32, deep and sighing. All respiratory muscles acting strongly. He complains of uncomfortable feeling about rectum. Bowels are confined. Seems dull and drowsy.

Ordered brandy ℨss. statim. Enema olei ricini, statim.

8.30 p.m.—Respiration of same character, but more rapid. He has great pain in region of stomach, ordered ℞. Sp. æther. sulph. ℥x. ammon. carb. gr. vj., aq. ad. ℨj., 4^{tis} horis.

11 p.m.—Has been getting gradually worse. He groans aloud, and now and then cries out. He asks for his brother. When given his brandy he remarked, "it was no good, as he knew he was dying." Brandy increased to ℨvj.

November 4th, 3 a.m.—Lies with eyes closed and pays no attention to surrounding objects, but will answer questions if aroused. He swallows brandy and medicine without any trouble.

5.30 a.m.—Breathing has suddenly changed. There

is now deep inspiration and groaning expiration. He lies with his eyes open, but turned upwards and half covered by the upper lid. Extremities are very cold. Radial pulse cannot be felt. Heart sounds are very indistinct. Patient is completely comatose. Death occurred at 7 a.m.

Abstract of Autopsy.—The left kidney was much atrophied, the calices and pelvis being completely filled with putty-like material. The left ureter was completely blocked with the same material. The right kidney was nearly twice the normal size (9½ oz. in weight), and appeared quite healthy. No lesion was discovered in the brain or spinal cord, both of which appeared quite healthy, hard, and did not tear on section. Lungs and heart healthy.

Remarks (by Dr. Wilks).—This case is one of much interest as favouring the belief in the existence of such a malady as acute diabetes. The strong presumption in support of it can only rest upon the same grounds as those which prove the duration of any illness—the recognition of symptoms denoting a departure from health on the part of the patient or his friends. In this case it was stated, both by the patient himself and by his father, that he had only been ill a fortnight before his death, and there was no reason to doubt the accuracy of their conviction. In medical literature, and scattered throughout the periodicals, cases of a similar kind may be met with, and but lately the attention of the profession was roused to the possible existence of *diabetes acutus* by the fact of a medical practitioner having suffered in his official reputation by the non-recognition of this disease a short time before the patient's death.

In the case above reported, if the patient had not sought advice at his own home until the day previous to his decease, and the medical man, from want of time or carelessness, had not made an examination of the urine, there might have arisen a great difficulty as to the exact cause of death; indeed, it is very probable in many cases where the patients are brought to the hospital in a dying state, and where the necropsy reveals no tangible organic disease, that they may have been the subjects of acute diabetes; in some such cases, however, rheumatism or other form of blood poisoning may be regarded as the latent cause.

The present case may be read as presenting very typically the symptoms which accompany death by diabetes, and which is usually called death by coma. This term is incorrect, if it is intended by it that the symptoms resemble those of death by apoplexy, uræmia or opium. This is not the case; the symptoms are rather those of profound collapse. The patient may very quickly fall into this condition, which is accompanied by an expression of great anxiety, together with restlessness, short breathing, sighing or groaning, whilst at the same time the pulse becomes thready and quick, and the face and hands grow rapidly cold. Very often, too, the patient complains of intense pain at the pit of the stomach. This symptom is very remarkable, but is pretty constant. All this time the patient may be quite rational and clear in his mind, so that there is no coma. Insensibility at last supervenes, as in many other fatal diseases, but it does not seem to have any special significance. I was once called to see a patient dying from diabetes, whom for a moment I thought was suffering from cholera, so great was the collapse and coldness of the body. In another case, severe rigors accompanied all the other symptoms just named, so that a suggestion of a suppurative or more common form of blood poisoning was made. I have seen a great many persons, both in hospital and private practice, die of diabetes, and therefore must pronounce the term coma a misnomer. The distinctive symptoms which mark the end are characterised by pain at the pit of the stomach, prostration, sighing, and apnœa.

Medical Times and Gazette.

SATURDAY, JANUARY 19, 1884.

A serious attack was made at the meeting of the Pathological Society on Tuesday last, on the essential nature of Charcot's joint disease, Mr. Arbuthnot Lane contending, in a carefully-written paper, that the changes found in that affection do not differ in any essential particular from those of rheumatoid arthritis, and denying that there were any distinctive features by which the two diseases could be separated. Many of the speakers who followed showed more or less inclination to accept his views; but we think, with some of the speakers, that due importance should be given to the clinical features of the two affections in endeavouring to decide the question of identity or non-identity. If the joint affection be rheumatic, the lightning pains will have to follow suit and be admitted to be only a coincidence, whereby we should be deprived of what at present is justly regarded as a valuable diagnostic symptom.

At the last meeting of the Ophthalmological Society, the subject of sympathetic ophthalmia cropped up again and occupied a good portion of the evening. Dr. Brailey pleaded in favour of reflex nerve irritation as a direct and indirect cause of the propagation of the mischief to the second eye. His arguments, however, did not seem absolutely convincing, and, until further evidence is forthcoming, we fancy the verdict will be "Not proven." Mr. Eales read an account of a case of paralysis of convergence and accommodation—a case resembling in some features the ophthalmoplegia interna of Hutchinson, and probably due to a central lesion. Mr. Story described the treatment of cystoid cicatrices, and Mr. Silcock exhibited some optic nerves showing an extravasation of blood into the sheath. Living specimens were shown by Mr. Lewis Jones and Mr. A. S. Morton.

In his Bradshawe lecture at the Royal College of Surgeons, Mr. John Marshall supported the theory of the existence of sensory nerve fibres in the sheaths of mixed nerves, although their existence had not been demonstrated. We learn that Mr. Victor Horsley has recently discovered not only sensory nerve fibres but also tactile corpuscles, or end bulbs, lying on the perineurium, and he will demonstrate his specimens at the next meeting of the Royal Medical and Chirurgical Society.

The Fellows of the Royal Medical and Chirurgical Society, and of the other societies which meet in Berners Street, will have learned with deep regret the death of Mr. Wheatley, so many years the Resident Librarian. Mr. Wheatley was born in 1819, and was the eldest son of Mr. Benjamin Wheatley, the auctioneer, of Piccadilly. At the death of his father, in 1837, he

was thrown upon his own resources, and from that time he devoted himself to the care of the family dependent upon him. He early showed that mastery of the art of catalogue-making which distinguished him through life. In 1845 he first commenced to catalogue at the Royal Medical and Chirurgical Society; and in 1855, on the resignation of Mr. Williams, he was appointed Resident Assistant Librarian of that Society. Besides his proficiency as a cataloguer, he was well known as an able analyser and indexer. He made, among many others, indices for the Statistical, Medical and Chirurgical, and Clinical Societies. He was an original member of the Library Association of the United Kingdom, and one of its Vice-Presidents. Mr. Wheatley's accurate knowledge of the resources of the Medical and Chirurgical Library, and his extensive acquaintance with medical literature generally, made him an invaluable helper to those who were at work on any special subject. He was just as ready to assist the youngest Fellow as the oldest official of the Society. His genial and quiet manner but served to enhance the value of his active and untiring industry in the service of the Society. Death took place rather unexpectedly, though he had been complaining for some days previously. The immediate cause was a weak heart, with some enteritis and peritonitis. He was buried on Tuesday last at the Highgate Cemetery, the chief office-bearers of the Royal Medical and Chirurgical Society, and representatives of the Clinical and Pathological Societies, being present.

Under the name "Alliance Française," the *Revue Scientifique* (Dec. 15) announces that a new society has been formed in Paris, having for its object "the propagation of the French language." Several persons, it says, devoted to the spread of the *idée française* in foreign parts, have come to the conclusion that the best way of effecting this is to propagate the cultivation of the French language abroad. "This is a patriotic aim—not that noisy patriotism which sees enemies on every side—but an active and humanitarian patriotism, which, combining the cause of France and that of civilisation, has no thought dearer to it than the increase of French influence. The *Alliance* may encounter some difficulties at first, but we feel assured that some years hence it will become one of the most powerful agents of our development beyond our narrow European boundaries." In pursuit of this somewhat grandiloquent programme, it is proposed to found schools in foreign parts in which the French language will be taught, and to send out to any country in "which the name of France is still beloved" lay missionaries, having in charge the promotion of the cultivation of the language. Among the patrons of the *Alliance* we find the names of General Faidherbe, the Bishop of Algeria, M. de Lesseps, M. Billot of the Foreign Office, M. Léon Say, M. Duruy, Professor Paul Bert, and other distinguished persons.

The most important event of the week for the medical profession has been a meeting held in a school-room in an out-of-the-way suburb. On Tuesday evening the "patients, friends, and neighbours" of Messrs. Bower and Keates, assembled in force at East Dulwich to witness the presentation of a testimonal expressive of their sympathy with, and unabated confidence in, those two persecuted practitioners. The chair was taken by the Rev. T. A. Warburton, vicar of East Dulwich, who stated the case in a most sympathetic speech. "Messrs. Bower and Keates," he said, "came there that night to receive, not their condolences, but their warmest congratulations. Their names would be long remembered in the medical profession as having adopted a course which should act as a warning to the Public Prosecutor in the future to inquire well into the facts of a case before he exercised his functions. The good result of the proceedings had been the establishment, among the medical profession, of a fund for the protection of practitioners, if assailed in the same ungrateful and ungenerous way that Messrs. Bower and Keates had been assailed."

The testimonial, consisting of an illuminated address, two silver salvers, and a joint purse containing one hundred guineas, was then presented. Mr. Bower made an excellent reply. "The subscribers to the testimonial," he said, "had done good to the medical profession, to the legal authorities, and to the public. The Public Prosecutor was, so to speak, green at his work, and the medical profession, so far as they were concerned, had had to teach him his business, though at its own cost. The Public Prosecutor had failed to prosecute in cases which he was asked to prosecute; and he had prosecuted medical men where he ought not to have prosecuted. In the present case, if some of the chief men of the medical profession had been appealed to, the Public Prosecutor would have been told that no prosecution ought to be instituted. He found a poor child suffering from diphtheria, and in such a condition that, if no further steps had been taken, it would have died in half an hour. In order to give it a chance of life, he made an opening in the windpipe. That was an operation which it was the bounden duty of every doctor to perform under the circumstances, and which, if it had been his own child, he should have requested to be performed. True, he was not able thereby to save the child's life, but he prolonged it for upwards of thirty hours; and for aught he knew at the time, the operation might have been successful. He might have contented himself with looking at the little sufferer and saying that nothing could be done; but with the simple desire to save life he performed an operation which was approved in all modern hospitals, and which in 14 or 15 per cent. of cases was successful." Other speeches followed, notably one by Dr. Glover; and the chairman, in dismissing the meeting, stated that the adviser of the Public Prosecutor had written saying that the operation adopted by Mr. Bower was a proper one and could not have been better performed.

Nothing which has happened in the profession for a long time has given greater cause for satisfaction than the way in which the appeal on behalf of Messrs. Bower and Keates has been responded to. Sir William Jenner, and the College which he represents, have

immensely advanced themselves in the esteem of all medical men by the statesmanlike way in which they gauged the importance of the case and the heartiness with which they took it up. The result has astonished and delighted everyone, and will be quoted for years as an answer to those, within the profession or without it, who say that doctors are apt to selfishly wrap themselves up intheir own pursuits. It is difficult, no doubt, to stimulate medical practitioners generally to take any vivid interest in the schemes of medical Bill makers. But when a case is put before them which really touches their generous sympathies, they have shown that they are not slow in responding to the call. If there had been need, many hundred pounds more would have poured in, to indemnify Messrs. Bower and Keates for their unjust usage. The result of the appeal, as Mr. Bower has pointed out, will have a most favourable effect on the profession, every member of which will vividly realize that in doing his work honestly and humanely he will have the sympathy and support of the profession against all cavillers.

The death rate of London, thanks to the mild weather, still continues comparatively low, viz. 19·4. The number of deaths in the week ending last Saturday was 1493, the ten years' average for the corresponding week being 326 more than that, or 1819. Of this fortunate falling off, not much more than half is accounted for by the decline in the number of deaths from zymotic and respiratory diseases, the two classes most influenced by meteorological conditions. The deaths from the former class were 60, and those from the latter class 122 below the corrected ten years' average. Mild weather probably tells on the death rate in ways which are not yet quite fully understood. The most fatal zymotic disease during the week was whooping cough, which caused 63 deaths; while measles caused 47, and scarlet fever 38 deaths. The mortality from diphtheria was 15, and from enteric fever 17, figures which compare very favourably with the latest returns from Paris, where during the week ending January 3rd, there were 56 deaths from diphtheria and croup, and 29 from enteric fever. The deaths from violence were rather more numerous than usual, the number of suicides being 14, or 8 more than the corrected average. There was not a single death during the week from sunstroke.

The Collection made in Dublin on Hospital Sunday, November 11, 1883, amounted to £4,212—a sum considerably in excess of that realised the previous year. Something over four thousand pounds will be available for distribution between the sixteen institutions which participate in the benefits of the Fund.

The twenty-third of the present month is the fiftieth anniversary of the formation of St. Vincent's Hospital, Dublin. A concert will be given on that day, in aid of the funds of the institution, when an ode, specially composed for the occasion by a well-known poet, will be recited.

A meeting will be held on Saturday afternoon, January 19th, under the presidency of the Duke of Westminster, K.G., at the Highbury Athenæum, Highbury New Park, at 4 p.m., to confirm the proposed amalgamation of the Great Northern Hospital and the Central Hospital for North London, and to consider the question of the increased need for hospital accommodation in the northern districts of the metropolis. The Marquis of Salisbury, K.G., the Earl Cowper, K.G., the Lord Mayor, Lord George Hamilton, M.P., Sir Andrew Lusk, M.P., W. M'Cullagh Torrens, Esq., M.P., Octavius E. Coope, Esq., M.P., Messrs. Burdett-Coutts, Townshend Murdoch, Marshall, Lang, and others, have announced their intention to take part in the proceedings. The scheme of amalgamation, which will be submitted to the public on this occasion, will probably be found equally satisfactory to the supporters of the old-established Great Northern Hospital and to those of the projected Central Hospital, mutual concessions having led to a combination at once harmonious and effective. The need for increased hospital accommodation in the North of London has long been recognised by the leading inhabitants of that district, and a keen interest has been taken in the present movement, which will doubtless find clear expression at the forthcoming meeting.

The number of professors at the German Universities is so great, and the reverence of the students so enthusiastic, that the celebration of some form of jubilee or another is a never-ending occurrence. That of Professor Du Bois-Reymoid has only just finished, amidst great enthusiasm, and now preparations are being made to commemmorate the fact that just twenty-five years have elapsed since the renowned clinical teacher, Professor Frerichs, accepted the call from Breslau to Berlin.

During the year 1882–83, the number of medical diplomas conferred in the German empire was 692, against 669 in 1881–82. In the same period 95 veterinary practitioners received diplomas, compared with 121 in 1881–82; and 22 dental diplomas were conferred, against 25 in 1881–82. There were also 315 apothecaries admitted, but the number of these has steadily declined since 1878, when it was 371.

The *Deutsche Med. Wochenschrift* for December 19 announces that the Prussian Government, in anticipation of the renewal of the discussion on the question of limiting the practice of vivisection which is to take place during the present session of the parliament, has issued a circular to the medical faculties of all the Prussian universities, requesting a statement of their opinions on the question. This calls to mind the fact that on the occasion of the interpellation which took place last session, a distinguished physiologist resolved to exhibit to the ministry, in a striking and graphic manner, the relation which vivisection bears to the progress of physiology. Taking the last edition of "Hermann's Manual," he scored all the well-founded facts which could never have been firmly established without the aid of vivisection. When he had done

with the book, it very much resembled in appearance a liberal political journal, which had been submitted, in the worst times, to a Russian censor—the passages struck out, exceeding in number those that were allowed to remain in.

Our Glasgow correspondent writes as follows:—"It appears from the health officer's report that the inmates of the model lodging houses have been re-vaccinated in large numbers, and in order to induce them to submit to the operation each man who accepted vaccination received a week's free lodgings, which is equivalent to a bonus of one shilling and nine pence. In three nights 146 out of 225 inmates submitted to re-vaccination. Of course, many of those who are supposed to have the good of the city at heart take exception to this new way of trying to prevent the spread of so dire a disease as small-pox. The reason for the step appears to have been the fact that an epidemic of small-pox had appeared in the locality in which the lodging house is situated, and it was considered a good plan to get at a number of individuals who wander about during the day and congregate together at night. The demand lately for vaccine lymph has been so great that at the public vaccination stations applicants (medical) were refused, or rather disappointed in securing supplies. It is to be hoped that we shall be spared the horrors of an epidemic; but when we hear of a bonus being given, it may be justly asked, What next?"

The health officer for Glasgow, in his provisional report for 1883, states that during the year there were 14,564 deaths registered, representing a death rate of 28 per 1000 of the population, as estimated by the Registrar-General, and of 27 per 1000 of the population, as estimated by himself. "The death-rate for the years 1881–1882 was 25, and the average death rate for the ten years, 1873 to 1882 was 27. Therefore whatever population we take for a basis of comparision, we certainly have not diminished our death rate in 1883 as compared with the decade immediately preceding, though we are considerably below the average of the ten years 1863–72, which was 31. It is not possible at this early date to go into the details of this increased mortality, but it is apparent that it is largely due to the epidemic prevalence and fatality of the three chief infectious diseases of children—measles, scarlet fever, and whooping-cough."

From the census report for 1881 of the North-West provinces of India and Oude, just published, it appears that out of a total population of nearly thirty-three millions, nearly one hundred and thirty thousand are blind, over six thousand are insane, nearly twenty-eight thousand are deaf and dumb, and nearly eighteen thousand are lepers.

Dr. Dudfield has appended to his last monthly report on the health of Kensington, a summary of the vital statistics of that parish during 1883, in anticipation of the full report to be published later on. The results are highly satisfactory. The deaths, 2,615 in number, were fewer by 76 than in 1882, and 358 below the corrected decennial average. The death rate was only 15·5, having beaten that of 1882, hitherto the lowest on record, by 0·7 per 1,000. It was 2·8 per 1,000 lower than the decennial average of Kensington, and as much as 7·0 below the decennial average of the metropolis generally. This favourable result is in great measure due to the decrease in the number of deaths from zymotic disease, which were only 251, or 199 below the corrected decennial average. The zymotic death rate was 1·5 per 1,000 persons living; the decennial rate for Kensington being 2·6, and that for the whole metropolis 3·5 per 1,000. The mortality from all the zymotic diseases but diphtheria and enteric fever, was much below the average, and considering that these are the two diseases which are perhaps the most likely to yield to sanitary influences steadily applied, we hope that Dr. Dudfield's future summaries will be even more satisfactory to himself and his clients than the present one.

The Government of Bombay has published a long memorandum on the plague among cats, which appeared at Ahmednuggar two years ago, and at Siroor last June. The Government seems to think that the plague may have some connexion with the cholera, and invites opinions on the subject.

We regret to see, from the Leeds papers, that there is some danger of the public losing the rights which they have held from time immemorial to wander at their free will over Ilkley Moor. Those who have stayed at Ben Rhydding, or gone on the tramp through Wharfedale, will remember with affection the breezy expanse of moorland above Ilkley, which is one of the finest of the few open spaces that still remain to the public. It appears that the lord of the manor has set up boards warning trespassers off the moor, on the ground that they interfere with the grouse, to the disposal of which he has a claim. Mr. J. F. Little, of Ben Rhydding, has entered a vigorous protest against this usurpation, and there is no doubt that he will receive such support as will end in securing the recognition of the people's claim to use the moor. In this connection we may quote an extract from a very able lecture on "The Difficulties of Health Reformers," delivered at Edinburgh last Saturday by Mr. Hely Almond. "Road walking," the speaker said, "was a poor sort of exercise; but hill walking, both for the climbing and the strong air, was a very good one. Some of the paths in the hills around Edinburgh were shut up because they did not use them. There was not another country in the world which shut up its mountain land as some people had most audaciously and most unpatriotically attempted to shut up vast tracts of the Highlands, and all for the lounging, sneaking, murderous mockery of sport called deer-driving, and to the injury of healthy sport, and of other things which did the same sort of good as sport—the pursuits of the naturalist, the artist, and the mountain club."

There is one item of news from Egypt of considerable importance. Mr. Clifford Lloyd has obtained permission to introduce sanitary reforms at Alexandria.

The health administration of that city will be entirely remodelled and brought as far as circumstances permit into harmony with English ideas. It is to be hoped that the reforms thus introduced in one corner of Egypt will be steadily and as quickly as possible extended to the whole of the Delta.

We have before us the first issue of the Australasian Medical Directory—a publication which doubtless has before it a most successful future. The want of such a guide to the profession in the southern colonies has long been felt, and the only cause of wonder is that it did not make its appearance years ago. The compiler has been three years in preparing it, and his work has been most ably done. It must be a satisfaction to him to feel that his publication is the first book of reference in which all the Australasian colonies—so soon we hope to be joined in a common league—have been brought together under one heading. The directory follows the lines of the corresponding publication in the mother country. Besides a list of nearly 1,700 legally qualified medical practitioners, resident in the colonies, it contains a general gazetteer of 1,000 post towns, combined with a local directory of all resident physicians, surgeons, veterinary surgeons, and dentists. It also contains an obituary, an abstract of all the principal laws affecting the medical profession throughout Australasia, an inter-colonial official medical directory, a list of scientific societies, the regulations and by-laws of colonial universities, a list of coroners, a recognised scale of medical and surgical fees, a short history of 130 universities in all parts of the world, and a list of medical periodicals published in the English language.

At Paris permission has been given by the Prefect of Police, on the recommendation of Dr. Brouardel, to cremate the remains of hospital subjects, provided a satisfactory apparatus be constructed in one of the Paris cemeteries. A Society for the Propagation of Cremation is in existence in Paris, the president being M. Koechlin-Schwartz, the mayor of one of the arrondissements.

It was not to be expected that the activity and enterprise which are converting the Cambridge University into one of the leading medical schools in the country would escape the adverse criticism of those whose ideal of a university life is one of secluded and self-sufficing contemplation of the past. This latter view is put very cleverly in an article entitled "Unnatural Science" in a recent number of the Cambridge Review. The writer, evidently a follower at greater or less distance of Mr. Oscar Wilde, thinks that natural science clashes grievously with the tone and the surroundings of "this ancient University." He would not however banish it altogether. "The aphorisms of Hippocrates, Aëtius, and Aretæus might well be studied; Pliny and Aristotle have in their range of knowledge and variety of observation been rarely superseded. The Arabian doctors, the Greek botanists, the middle-age physiologers, all help us to understand the past, and that to my thinking, is the chief and highest part of university education." As for the more modern studies, they would be most fitly carried on in our large manufacturing towns, which would be little the worse for the addition of one sight slightly more revolting or a few smells of a rather more atrocious character.

The writer then goes on to inform us that by medicine he does not understand as so many do the barbarities of vivisection, or the finikin pedantries of microscopic research. "Rather I have in my mind's eye the calm-browed disciple of Galen and Hippocrates, pacing the grassy courts of Caius, or the cool alley of the Baeks, his eye ever on the watch for simples and healing herbs—Birthwort, and Herb Benet, and St. John Baptist flower—whose vocation should be to build up instead of pulling to pieces, to heal and rescue rather than to blight and to destroy."

But his main complaint against science is that it dulls the senses of its devotees most fatally as regards the appreciation of beauty, until the mind gets so distorted as to contemplate the structure of an entozoon with greater satisfaction than the east window of King's Chapel. And lastly, he cannot help thinking that the time is near, when we shall only welcome the sight of a sunset for the sake of the aid it may lend to the spectroscope; when we shall only whistle to a dog in order that he may come and be larded with tin tacks, and when the only notice excited by an early Italian fresco will be an exclamation of disgust at the imperfect treatment of the deltoid muscle. If these amusing paradoxes were worth answering, one might point out that many branches of modern science contemplate a past, beside which the past of Hippocrates and the Arabian doctors is but as yesterday. But then it is a past on which man's hand made little impress, and that robs it of interest for our mediæval critic. The difference between the two schools of thought is that the one regards man as the centre of the universe, and nothing of importance except in relation to him, while the other looks on man as a part—the most interesting part perhaps, but still only a part—of nature. A university belies its name which does not embrace both schools.

The Cambridge Special Board for Medicine have just issued a schedule, defining the range of the examination in pharmacy and pharmaceutical chemistry which students proceeding to medical and surgical degrees will be expected to pass. It has evidently been judiciously compiled, and the demands made on the student do not extend beyond what is absolutely essential. The minor drugs, of which so many are still allowed to remain in the Pharmacopœia, are wisely disregarded, and chief stress is laid on the preparation and adulteration of the more important agents, and the proportions of *essential* ingredients contained in their pharmacopœial preparations. The student, moreover, will only be expected to recognise ordinary specimens of the more important crude drugs and of the more characteristic preparations. The authorities have acted very wisely in freeing their students from the useless toil of learning the look of unimportant drugs which no one but here and there an old-fashioned apothecary ever uses.

The juice that Dr. Moxon's pen distils is always stimulating to the mind, if sometimes somewhat acrid, and now and then a trifle turbid. Those who read their *Lancet* carefully will have been struck by some sentences published in a lecture of his last week, which have all the qualities we have defined. It sometimes seems to him, he tells us, "as if the medical mind describes the kind of curve which is called an hyperbola, and that the finite visible and measurable part of this curve is in the region which medicine shares with surgery; whilst the other side of the hyperbolic curve, that which looses itself in the infinite, affords scope for a range of greatness more proper to medicine, allowing play for electro-doctors and room for mastership in dyspepsia, and range for skill in the number of minutes tea should be brewed, and for precise propriety in porridge and potatoes, with other details which, but for infinitude of range, might seem trivial to anyone wanting in faith. But with faith nothing seems trivial. Is not faith the only faculty that can follow hyperbolic curves through the infinite side of their course?" A little later he talks of those "who lend meretricious authority to the vague and indefinite," and then after a sentence, the profound obscurity of which even the most hyperbolic medical mind will fail to penetrate, he tells us that he could say a great deal upon pulmonary *adequacy*, "if he had nothing more definite to communicate." We do not quite catch Dr. Moxon's meaning, unless it be to fling, in passing, a little chaff at certain physicians, who are not quite such skilled pathologists as he. We always think pathologists are to be pardoned when they get out of patience, as they often do, with diseases that make no show in the deadhouse. But still half the suffering in this world, if not more, is caused by functional disease and minor ailments.

It is reported that Dr. Wendell Holmes will shortly come to England on a lecturing tour.

A strange sort of festivity, says *Truth*, took place on Friday, the 4th instant, at the Hospital St. Louis, at Paris. A comic opera, written and composed by the young surgeons attached to the establishment, was performed for the amusement of the patients. Fifty years ago, Charles Fourier, the celebrated philosopher, wrote:—"One day medical science will endeavour to overcome the sufferings of patients by amusing their minds; hospitals will be filled with flowers, and music and plays will be performed there." And yet it was currently reported that Fourier was mad.

There is no profession in which there is so little temptation to downright lying, and so much temptation to fibbing, as that of Medicine. It is so difficult to tell a patient bluntly, "I don't know what is the matter with you," when half a dozen plausible assumptions, any one of which would suffice to save one's reputation and retain the confidence of one's patient, start to the tongue. It is so difficult to say, "Sir, your wife's a drunkard," or, "Madam, you have cancer of your right supra-renal capsule, and will be dead in six months," when a little prevarication would be so much easier and pleasanter for all parties. Here and there, it is true, one meets with a doctor who is tempted in exactly the opposite direction, who loses no opportunity of telling the brutal truth, and who, like Mr. Gilbert's King Gama, is, in everybody's opinion, "a most unpleasant man." While it is difficult to such a man to remember that one has other duties to his patients besides truth, it is difficult for others to remember that they have other duties besides kindness. We are sure that the absolute avoidance of falsehood, expressed or implied, is the best policy for the doctor in the long run, even as regards his own worldly interests; whilst so far as the profession is concerned, there is no single thing which has done it so much harm, in the eyes of the public, as the belief that some doctors hold the concealment of the truth to be justified by the end. On this subject no one's teaching, by precept and example, has been more beneficial than that of Dr. Matthews Duncan, whose remarks in another column will be read, we are sure, with universal approval.

The *Louisville Medical News* for December 15th extracts some interesting passages from the report of the German Consul-General at Shanghai, in relation to the Chinese trade in musk. In China everything smells of musk, both sexes carrying it about in little boxes and keeping it in their clothes-presses. When it is considered that an export of 3,000 catties, each catty containing 15 to 20 pouches of Yunnan, or 20 to 30 of Tonquin musk, means the sacrifice of no less than 60,000 musk deer (and this quantity has been reached several times of late years), and if to this there be added the consumption in China itself, which can scarcely be estimated, it is much to be feared that the entire extirpation of this useful and graceful animal will not be long delayed. Each pouch is wrapped in Chinese paper, and put into a pasteboard box, lined with lead and covered with silk. The boxes are of different sizes, according to the size of the pouch to be packed. They are generally shipped by the mail steamers, being placed in the safe reserved for bullion and treasure. The total export for the last five years was 25,664 catties, or 33,875 lbs., valued at 2,728,800 dollars. The chief port of export is Tientsin—Shanghai and Canton exporting very little.

Some of our readers may be interested to learn that the distinguished physiologist Dr. S. Weir Mitchell, has commenced, in the *Atlantic Monthly* for January, a tale connected with the events of the American Civil War, entitled "In War Time."

We have on former occasions called the attention of our readers to the precarious position of the valuable Index Medicus, instituted for the purpose of supplementing Dr. Billing's Index Catalogue, by furnishing an index of all medical works and original communications in periodical literature which have appeared during the year. This publication, which must prove an invaluable aid to all branches of medical inquiry, is now in imminent danger of coming to a close, from the insufficiency of the support which it has received. The mere cost of its production amounts to 5,000 dollars,

and the maximum return from subscriptions has not exceeded 3,600. The difference has been met by the sacrifices made by its enthusiastic publisher, Mr. Leypoldt, of New York, assisted latterly by a guarantee fund raised by medical bodies and some individual subscribers. It is now felt that this cannot go on, and in a circular just received the publisher announces its approaching stoppage, unless present subscribers will consent to increase their contributions to two guineas per annum, for the mere increase of subscribers at the present rate is quite insignificant. When we consider that the valuable information contained in this work is available in any part of the world where collections of medical works exist, it is humiliating to find that so small a sum should not be forthcoming. At the very least, one would naturally expect that every Medical Society in existence would be found on the roll of subscribers, as well as all learned bodies and academies; and were this so, the appeal now made would be unnecessary. In fact, the negative character of the list of subscribers is most disheartening.

The Library of the Royal College of Surgeons will be closed to day (Jan. 18,) for the purposes of the examinations. We are glad to be able to inform our readers that on and after the 28th inst. it will remain open daily until 6 o'clock, instead of 5 as at present, except on Saturdays, when it will be closed at one.

THE PLETHORA OF CONSULTANTS.

The large number of letters we have received on this subject, a selection from which we again publish this week, forces upon one the conviction that there is widespread and growing discontent with the present state of things. It is quite natural that the consultant who is approaching middle age without seeing any clear prospect of an increase in his income, or of a relaxation in the strain of an enforced economy, should gird at an arrangement which entails on him such hard work and so little pay. It is natural, too, that the successful consultant, with all his weary waiting behind him, and the yellow harvest at his feet, should rebel at the idea of spending his wide experience on coughs and flatulencies, which a journeyman practitioner could conduct to convalescence with equal success. And perhaps it is natural, too, that the journeyman, seeing the master thus occupied with journeyman's work, should resent the higher fees and higher honours which are accorded to him. Against this natural discontent with the present order, one must set off a certain amount of not unnatural content. The eminent consultant who has so gained the confidence of the general practitioners that the larger proportion of his work is such as is worthy of his powers; the younger consultant who has the means and the inclination to devote himself to the scientific pursuit of his profession, more or less regardless of its emoluments; the general practitioner who has so secured the confidence of his patients, that the consultant is to him not so much a dreaded competitor as an ally and support, all these can well afford to be content. But they are few numerically, and their complaisance is drowned by the mass of fermenting discontent, which needs but the slightest touch from the journalist to rush forth in streams of ink. All times of transition are times of discontent, and it does not need a very far-seeing eye to perceive that the present state of things cannot be permanent; but that, after a certain period of confusion, there will be a new arrangement of atoms, and probably a separation at a different and more definite line of cleavage than at present obtains.

Many causes have combined to produce that plethora in the ranks of the consultants, which seems to be at the bottom of "the present discontents." The enormous increase of late years in the number of hospital appointments open only to consultants, the growth of wealth which gives a staying-power to so many young practitioners, the spread of scientific interest, and the more or less fictitious and conventional social line which separates the consultants from the general practitioners, all these influences have drawn men into the higher branch of the profession who would otherwise have entered the lower. As consultants there is not enough work for more than a third of them; the natural result is that the majority either have no private practice at all, or are compelled to undertake work which should properly fall to the family doctor. They become, in short, as far as their private work is concerned, general practitioners in all but the name. The general practitioners, on the other hand, in many parts of London, are pressing upwards; they have washed their hands of dispensing, shaken off the little surgery that used to fall to them, raised their fees, and, in some cases, taken the membership of the College of Physicians. These processes will go on; the consultants attached to the smaller hospitals who cannot hope to gain much true consulting practice will slowly sink, the general practitioner in the better neighbourhoods will slowly rise, until a recognition of the changed order becomes necessary. The word "consultant," it is to be hoped, will be restored to its proper meaning, the term "general practitioner"—always a hideous one—will be dropped, and the title of physician will be claimed and used by everyone who is in any way connected with the College in Pall Mall. The smaller hospitals, if they then still exist, will be manned from this new class, and the consulting branch will be recruited from the staffs of the large hospitals and from those connected with the smaller hospitals, who by their gifts, their industry, and their experience have entitled themselves to the respect and confidence of their brother practitioners.

When hospital appointments are thrown open to the men who now stand in the rank of general practitioners, the sole obstacle which now prevents an able and earnest worker in the lower grade from rising to the higher will be removed. It seems a commonplace—though it is one that is often forgotten—to say that the main *raison d'être* of the consultant is to consult. We are all, however, too apt, when a young consultant's merits are being canvassed, to ask, "What has he written? What researches has he made? Is he a Fellow of the Royal Society?" Now no one can value more highly than we do the fruitful labours and the scientific zeal of many of the younger consultants, and well-searched as the field of medicine has been, it is impossible for a man with a seeing eye to pass

over it without finding something which may well be called an original discovery. But it should not be forgotten that all this is something given in, something additional to the main work demanded of him. The business of the consultant is so to train himself by hard work in ward and dead-house as to entitle him to the confidence of the profession and the public. He may have experimented with every drug, and stained sections of every cubic centimeter in the body, but if at the same time he has neglected the systematic and careful observation of disease, he has failed in his mission. Many men have gained the confidence of the general practitioners—who, by the way, are not the most lenient critics—and been celebrated as consultants, who have never added a new fact to medicine—witness the late Sir Thomas Watson; and there are many on the other hand who have won a name in the scientific world for their original researches, to whose opinion on a clinical case the intelligent general practitioner would not attach the slightest importance. Research, especially if well advertised, may be successful in attracting a certain sort of *clientèle;* but the soundest consulting practices have always been founded on hard work and good teaching in the hospital ward. This sort of practice is not to be made in a day, indeed, the man who aspires to it, if he is honest with himself, can hardly feel fit for it until his hair begins to grow grey. If the best of our young consultants could feel sure that they would eventually attain this goal, they would probably be content with their present position. It is the prospect of failing to obtain it after so many years of fruitless labour, through the number of their competitors, that takes all the heart out of their life and work.

AUSCULTATION OF THE ŒSOPHAGUS.

Attempts have frequently been made to establish some trustworthy means of diagnosing affections of the œsophagus and stomach by the aid of auscultation. The act of swallowing of necessity gives rise to certain sounds, and it is to the correct interpretation of these that we must look before making use of any modification of them in determining morbid conditions. A recent discussion upon the subject in the *Berliner Medicinische Gesellschaft* introduced many points of interest, both from physiological and clinical points of view. The *idea* that deglutition is chiefly effected by means of the action of the constrictor muscles and of the peristaltic movement of the œsophagus has lately been opposed by a theory propounded by Kronecker and Meltzer, who divide the act into two parts, of which the first consists in the rapid injection of the masticated food or fluid through the œsophagus, and the second in the further injection of the food through the cardiac orifice by the contraction of the lower segment of the œsophagus itself. The act is a very rapid one. The every-day experience of the sensation of swallowing may certainly be held to corroborate this theory. Hot or irritant fluids invariably make themselves felt at the upper and lower parts of the œsophagus only, a result probably due to the fact that it is at these points that they are forcibly squeezed against the mucous membrane. If the theory is correct, it is there also that they remain for a few seconds at rest. The pathological appearances produced by corrosive irritants are likewise most marked at the same points. The sounds produced by these two spasmodic movements, by which the food is thus "squirted," so to speak, down the œsophageal tube, may be distinctly heard on listening at the side of the ensiform cartilage. A first sound, coincident with the upper œsophageal contraction, is described as resembling that produced by discharging a syringeful of air under water; the second, following it after an interval of about seven seconds, is said to be somewhat similar, but coarser in character, and corresponds with the opening of the cardiac orifice and the spasmodic injection of the food through it into the stomach. Unfortunately for the diagnostic value of these auscultatory signs, their occurrence is not absolutely constant in healthy persons, although present in a very large majority of the cases examined. Neither is there perfect agreement between individual observers as to the character and relative intensity of the sounds produced. Almost identical noises are heard over the stomach when the œsophagus is at rest, and they may even be set up by electrical stimuli. The subject is one which deserves attention, and especially in relation to affections of the œsophagus, which have, from the earliest days of medicine down to the case of the late Comte de Chambord, presented insurmountable difficulties to the most able diagnosticians; but until a standard can be determined to form a physiological starting point, the efforts to interpret the auscultatory phenomena in the œsophagus will remain as futile as heretofore.

CLINICAL PAPERS.

No. IV.—Aural Vertigo.

It must be evident to many practising our profession, and especially to those who see many aural patients, how frequently the subjects of Menière's disease and aural vertigo are overlooked. Not only are the slighter cases of aural vertigo mistaken for dyspepsia with headache, but even the severer forms, with very obvious symptoms, are ignored. Again and again are patients seen who have been assured that the stomach only is out of order, when the first complaint should have directed attention to the ear. To be able at once to attribute the distressing symptoms from which such patients suffer to the right organ of the body is a position which all members of the profession should be able to assume. With a little care, even the milder cases, in which only occasional and slight giddiness is complained of, may be easily detected. Giddiness of a certain kind should arouse suspicion. Aural vertigo is always very sudden, and occurs at irregular intervals. In severe cases, however, the patient may be continuously giddy, with exacerbations in severity. A man may have one or more attacks of giddiness, particularly at the onset of disease of the labyrinth, and then remain perfectly free for a very variable time. The next attack, after a longer or shorter

interval, occurs quite suddenly and without any warning. It is astonishing how often these paroxysms are noticed in the early morning in bed, the patient being awakened suddenly to find his bed revolving in one or other direction. The probable explanation is, that he has inadvertently turned over from one side to the other in his sleep. Such patients are invariably unable to look under a table without stooping in the vertical position. They cannot turn quickly, or look up at the ceiling. They dare not walk in the dark or with closed eyes. Any movement which would suddenly alter the position of the fluid in the labyrinth brings on an attack.

These, and many other similar facts, one gradually hears in the course of practice; and hearing such a description, the rest may be generally extracted from each and every patient who is the subject of these diseases. For confirmation of the suspicions thus aroused, one would expect to find that the patient was the victim of a constant noise in one or both ears, increased generally when the attack of giddiness comes on to a loud whistling sound. Finally, on examination with the watch applied to the bones of the skull, one or both ears would be found deficient in hearing power. Consequently, the association of these three signs—giddiness, noises in the ear, and distinct loss of hearing by direct conduction to the auditory nerve—would at once put the case under the term that is described generally rather vaguely as "Menière's disease." This name is more properly confined to a smaller branch of such cases to which the term "apoplectiform" is added, on account of the suddenness and severity of the attack, caused either by an extravasation of blood or an inflammatory exudation in the labyrinth. These three signs should not fail to draw the attention of the practitioner to the patient's ear. One would imagine that such deafness could not escape observation; but sometimes it is very slight at first, and the imperfection is only discovered on comparing it with the condition of another person's ear—most frequently that of the practitioner. Or the disease is only present in one ear, and the other being good the deficiency is not noticed. Having decided that the ear is at fault, it becomes necessary to examine the auditory canal. Unfortunately the ear is frequently syringed without such an examination, the consequence being that in the absence of wax the patient is only made more giddy than he was before. Having proved the presence of wax by inspection, "the greatest triumph of aural surgery"—namely, the use of the syringe—may be put in execution. There are, however, few cases in which the presence of wax is the sole cause of aural vertigo; and we would strongly insist upon the necessity of a thorough and careful examination for all those general causes, such as anæmia, which may be attended with aural symptoms, particularly in an already partially disabled ear, and which quickly yield to general treatment.

Presuming, then, that these general causes have been carefully considered, and the auditory canal cleared of its contents if there be any, the condition of the membrana tympani and middle ear must be examined. If such an obvious lesion as a perforation with recent inflammatory exudation is found, these must receive careful and patient treatment before any definite prognosis is given, for the labyrinth itself may be, and probably is, affected in a similar manner by its proximity to the tympanum, and on the subsidence of the inflammation all unpleasant symptoms may disappear. By far the larger class of cases, however, of labyrinthine vertigo are found to be without any definite cause such as this, and one finds the signs of chronic interstitial disease of the middle ear, or an absolutely normal membrane. In the former case, it is believed that the pressure of the stapes upon the fluid of the labyrinth causes the vertigo and noise which accompanies it, and that treatment by inflation through the Eustachian tube cures or relieves this condition. That it relieves the noise for a time there is no doubt, but it is open to question whether the giddiness is in any way improved. In the case of a normal membrane (which is found in a large number of the patients we are here considering, and in most of those with chronic dry catarrh or interstitial disease of the middle ear), little or nothing can be expected from treatment. We have, however, the satisfaction of knowing the course the disease will probably run, and the condition in which it will probably leave the patient.

The length of time over which the disease is spread is very variable, as patients undoubtedly get much better for a time and again relapse. But each return brings with it increasing deafness, till finally, if both ears have been affected, the deafness is almost complete. If one ear only has shown the deficiency of hearing to the watch on contact, or to the tuning-fork, and there are loud whistling noises, then the result of absolute deafness in *one* ear may be expected. This, however, leaves a man a comparatively useful member of society. But in either case the giddiness in the end disappears; and, considering the torture that patients suffer from this alone, it is a crumb of comfort by no means to be despised. Years sometimes elapse before this takes place; but intervals of comparative freedom from annoyance at times occur, and each relapse is generally less severe than the last, leaving the patient, however, more deaf than he was before. Without attempting to differentiate between the various forms of aural vertigo—on which too much stress, to our mind, is laid by the aurists of the day—yet a little more attention to this possible cause of giddiness is much needed by the general body of the profession. When, therefore, giddiness is complained of, and the suspicion is aroused that the ear is at fault, we may expect to find it accompanied by distinct and distressing tinnitus, and when impacted wax is not the cause, additional confirmation is obtained by the application of a watch or tuning-fork as before described. K.

The late Mr. John Flint South.—A life of this gentleman, so well known from his long connection with the Royal College of Surgeons, of which Institution he was twice elected President, and for so many years Surgeon to St. Thomas's Hospital, will be published in a few weeks by Mr. John Murray. The author, Prof. Feltoe, of St. David's College, Lampeter, has had excellent facilities for doing justice to the memory of an honoured member of our profession.

REVIEWS AND NOTICES OF BOOKS.

Diseases of the Bladder, Prostate Gland, and Urethra; by F. J. Gant, F.R.C.S. Fifth Edition. Baillière, Tindall, and Cox, London—This publication has proved that it supplies an acknowledged want, by having reached its fifth edition. Its range is wide, and includes a number of subjects concerning which the student or junior practitioner frequently desires to refresh his memory, and which hitherto it has not been usual to discuss at length within one volume. Mr. Gant says he covers more ground than is covered by any other English author in a single work, and we see no reason to dispute his statement, although the American writers Van Buren and Keyes have even gone further, and in their excellent work on Diseases of the Genito-Urinary Organs, have included syphilis, and the functional diseases of the genital organs. Mr. Gant's treatise consists of his own experience, together with such information as the student can only gather from the combined works of Sir Henry Thompson, Mr. Berkeley Hill, and last, but by no means least, from Dr. William Roberts' classical manual on Urinary and Renal Diseases. The author has been so anxious to make his book useful to the practitioner, that he has devoted space to subjects which do not ordinarily come under the title he has chosen, such as the description and treatment of ruptured perineum in the female, of orchitis in the male, and of congenital malformations of the anus and rectum. At the same time he omits syphilis, and the functional disorders of the genital organs, which, with a little pressure, might have been brought in under the heading of Diseases of the Urethra. Moreover, the first forty pages are given up to the anatomy of the urinary organs, which we cannot help thinking somewhat unnecessary in a practical clinical handbook.

We have nothing but praise for the intention of the author, he gives full credit to all fellow-workers when it is deserved, and evidently endeavours to omit nothing which he thinks will be useful to the class for whom he writes. It is therefore in no unfriendly spirit that we would suggest a few corrections and additions for a future edition. In the first place, beginning with the anatomical section, it is hardly correct to describe the bladder as a hollow organ, and the urethra as a membranous tube, having a diameter of a quarter of an inch at its widest part. Such a description is liable to lead to error in practice, and accordingly we find on turning to the treatment of gonorrhœa, that the patient is directed, when using a urethral injection, to press the urethra in front of the scrotum, to prevent the injection leaving the penile urethra. As a matter of fact, this use of the finger is unnecessary, the urethral walls, during life, being always in contact, held together by their muscular fibres, and no fluid can penetrate further than it is forced. The bladder is never hollow, it is often momentarily empty of urine, but even then there is no hollowness. The realisation of the fact that the bladder never contains an empty space is most important when the living bladder has to be washed out, and lotions applied to its interior.

Mr. Gant has little to say about the removal of tumours from the bladder, he makes very slight mention of the progress that of late has been made in this department of surgery, only noting that Sir Henry Thompson and Mr. Berkeley Hill have each removed a tumour successfully from the bladder. No mention is made of the remarkable series of twelve cases of operation which the former surgeon brought before the Royal Medico-Chirurgical Society last June, or of the other surgeons who, during the last six years, have operated successfully in these cases. It is important to impress upon readers of a handbook that patients afflicted with tumour of the bladder must die miserably if left alone, and that a certain number of these cases may be saved if submitted to bold surgical interference.

The chapter on stone in the bladder is full of interesting and instructive matter, and is evidently written with a full knowledge of the subject. As however nothing can be more distressing after a well performed lithotomy than to lose the patient from primary or secondary hæmorrhage, we are not satisfied to find secondary hæmorrhage dismissed in a few words, "compression will here prove more effectual than ligature." Such instruction is not very clear to the beginner, and it would have been well to have drawn his attention to the best means of plugging the wound with lint soaked in perchloride of iron, or explained to him the use of the light, cleanly, and efficacious air-tampon of recent introduction.

Turning to lithotrity, we find the modern operation with complete and immediate evacuation of the fragments, curiously grafted on the older text, written we suppose before Prof. Bigelow had published his principle, the truth of which is now universally admitted, and which has revolutionised the operation of crushing stone. In consequence these pages are not as clear and definite as they might be. In passing we may draw attention to an error in the drawing of the lithotrite in fig. 30. A large stone is grasped between the blades, but the handle is represented with the male blade screwed home, which under the circumstances is an impossibility.

In addition to lithotomy and lithotrity, the solution of stone in the bladder by medicines taken by the mouth, and also by electrolysis, is given much prominence. Dr. William Roberts is largely quoted from, and his experiments are so referred to as to lead the student to expect greater results from the administration of alkalies by the mouth than he will meet with in actual practice. Still, taking the book in its entirety, it is one which the young surgeon may read with interest and profit, especially if he has previously acquired from larger and more systematic works a sound general knowledge of the subject.

Practical Clinical Lessons on Syphilis and the Genito-Urinary Diseases; by F. N. Otis, M.D. New York: Bermingham and Co., 1883, pp. 576.—Within the last few years a large number of excellent systematic treatises on syphilis have been produced in America. The tone of our transatlantic brethren on the question of the ultimate curability of syphilis is remarkably hopeful, and some authorities, indeed, estimate the cures at upwards of 95 per cent. of all cases. This would lead us to infer that either they have to deal with a milder and less virulent form of the disease than is prevalent in the old world, or that their treatment is on the whole superior to our own. Broadly stated, the American plan of treatment consists in the exhibition of small repeated doses of various mercurials, which are continued for a considerable length of time, that is, for a period of from one to three years, and the iodides are mainly reserved for the treatment of the gummous deposits of the tertiary stage, if indeed these occur at all. The observations of Professor Keyes have exercised a wide influence in this matter. He found, by examination of the blood, that small doses of mercury in syphilis, continued for either a short or long period, not only increased the number of the red corpuscles, but maintained them also at a high standard. This tonic plan of treatment as he has termed it, is now very generally advocated in America, and with the best results. In the present work these points are lucidly put forward, and illustrated by the details of many well-told and instructive cases. Among others, a series of eight cases of syphilis of the finger in medical men is well worthy of attention. Dr. Otis's volume differs, however, from many of its predecessors, by going less minutely into the anatomical and histological detail of the various syphilitic manifestations in skin, bones, and viscera, its scope as implied in its title being essentially clinical and practical. It is made up of a number of short chapters, which were originally given as "class-room lessons" to students; the first half of the volume deals with syphilis, and the second with gonorrhœa and its treatment. As a consequence of its somewhat fragmentary compilation, we find throughout the work a certain want of continuity and coherence in the descriptions, as well as a considerable amount of needless repetition. Apart, however, from such comparatively slight blemishes, much valuable and suggestive material may be found scattered throughout its pages. On the subject of tertiary syphilis, Dr. Otis advances some novel considerations. He proposes the

substitution of the term "period of lymphatic obstruction," for the older names of "tertiary" and "quarternary syphilis." In the active stage of syphilis, as he points out, there is much rapid cell proliferation, which finally induces more or less mechanical interference in the lymphatic system, and accordingly, as was shown by Hutchinson, the more severe and prolonged the secondary or active period of syphilis is, the more severe are the subsequent tertiary gummatous lesions. On this view the gummy infiltrations of so-called tertiary syphilis are merely sequelæ of the earlier stage of the disease, and therefore a gentle and prolonged mercurial course at this time may either entirely prevent, or will at all events greatly mitigate, the later manifestations, by producing fatty degeneration and absorption of the cellular elements, which are blocking the lymphatic system. Dr. Otis brings forward many arguments in favour of his view, and in the latter section on gonorrhœa fully describes his method of dilating-urethrotomy. For these, and many other points, we can recommend a perusal of this volume.

ABSTRACTS AND EXTRACTS.

SURGEON-GENERAL HUNTER ON THE CHOLERA IN EGYPT.

We gave in our last issue a fairly full abstract of Dr. Hunter's paper on this subject. It will therefore suffice to supplement it with a brief *resumé* of the more important evidence on which Dr. Hunter formed his opinion, that cholera has been epidemic in Egypt since 1865, taken by the courtesy of the editor of the *British Medical Journal* from Dr. Hunter's paper, published in full in that periodical.

1. Cases of cholera were said to have occurred in a Greek school at Damietta antecedent to the outbreak on June 22nd. (1) Two Coptic priests informed Dr. Hunter that a Coptic boy, aged five years, belonging to their school, had died with all the symptoms of cholera on June 17th. (2) A Greek priest said that last May one of the scholars at the Greek school, aged eight years, was attacked at Damietta with excessive vomiting and prostration, but had no purging; no details as to suppression of urine. The lad was taken to Mansourah, where he died in twenty-four hours.

2. Positive evidence obtained from Dr. Dutrieux.—Two Greek children died at Damietta April 27th; one day's illness, cyanosis, aphony, algid state, no vomiting, no diarrhœa. Another Greek child, ill about six months; vomit, cramps, aphony, algid state, without diarrhœa; death after six days. Arab barber, ill two or three days, towards end of April, after vomit and diarrhœa. Arab shopkeeper, dead after twenty-four hours' vomit and diarrhœa.

3. Dr. Ambron stated, that in 1867 he saw a case in the person of Dr. Giovanni Martini, who, being called out at night, wrapped himself up in a woollen scarf which he had used only during the epidemic of 1865. A few hours later he was seized with fainting, then with vomiting and diarrhœa, and had all the phenomena of cholera, with the algid state and aphony, but recovered.

4. Dr. Sonsino met with the following in Cairo:—"T. B., of Leghorn, lapidary, seized with cholerine on May 13th, 1873; suffered from diarrhœa, vomit, algid state, and sunkenness of the eye cavities; recovered after twenty hours. In November, 1874, the same man was again attacked with cholerine, but recovered."

5. Dr. Rabitsch stated, Sept. 19th, 1883, that in the year 1878 or 1879 he was called to the Hotel du Mercure, and found there a man whom he pronounced to be suffering from cholera; the patient recovered.

6. Dr. Fouquet had under his observation in September, 1881, a very grave case of cholera nostras, which closely resembled Asiatic cholera; the patient recovered.

7. Dr. Sierra, a medical officer of the European Hospital at Alexandria, stated on July 31st, 1883, that he remembered well, after the small epidemic of 1866, seeing cases of cholerine in Alexandria. By cholerine he meant a copious vomiting and diarrhœa, accompanied by a marked fall in the pulse, agitation, sinking of the eyes. He mentioned such a case to a colleague, and was told that similar cases had occurred in the town; but never more than two or three in a year. Dr. Sierra referred to cases admitted, in the spring of 1883, to the European Hospital at Alexandria, which Dr. Mackie described as two typical cases of cholera.

8. Dr. Mackie has supplied notes of four cases which fell under his own observation. Two in the summer of 1881; another in the summer of 1872, which ended fatally; a fourth in the summer of 1872 or 1873, in one of the sisters of the Deaconesses' Hospital.

9. Dr. Kartulis furnishes a suspicious case as having occurred in September, 1881.

10. Dr. Mamlouk mentions, August 27th, 1883, two cases—one, of a suspicious character, occurred about eight years previously; another, a typical case of cholera, about four years previously.

11. Dr. De Castro, six or seven years ago, saw a case which recovered. About three years previously a case came under his observation and recovered. This patient had had a former attack in 1865. The second attack resembled the first, and presented all the phenomena of cholera.

12. Dr. Demech states that, since 1865, not a summer passed without his seeing one or two cases, more or less severe, of cholera nostras, but in 1866 he had two fatal cases in Europeans in Mansourah.

13. Dr. Fouquet had under his observation, in Sept., 1881, a very grave case of cholera nostras, which closely resembled Asiatic cholera. The patient recovered.

14. Dr. Haddad, of Assiout, states that Dr. Mazurakis, in Dec., 1882, had a patient who died with symptoms of vomiting, purging, cramps, and collapse, after ten or twelve hours. At Assiout, Dr. Haddad states that a man who arrived from Cairo on July 28th, when the epidemic was at its height, and who died of cholera the following day, was entered in the Government registers under the head of "choleriforme." The inhabitants of Assiout "laughed" at this being considered the first case of cholera which had occurred there.

15. Dr. Patterson, H.M. Consular Surgeon, Constantinople, states that he practised in Egypt from 1855 to 1868, both in Cairo and Alexandria, and cannot recall a year during that time without several well-marked cases of cholera having come under his notice, and which were conveniently classed under the head of "cholera nostras." No one, he says, acquainted with the disease could doubt that cholera—by whatever name it might be designated—was endemic in Egypt.

16. Surgeon-Major McNally shows that, in the neighbourhood of Zagazig, diarrhœa with vomiting had existed since last January, and had proved fatal to two hundred persons; that great mortality had taken place from cholera at Chibin-el-Kom prior to the report of its occurrence at Damietta; that, in certain villages in the neighbourhood of Benha, cholera had appeared before the reported outbreak at Damietta, and in one village the deaths were said to have numbered more than fifteen a day.

17. Mr. Honman states that numerous cases of cholera had occurred in Mahallet before the existence of the disease was officially recognised on July 16th; that at Miniett-el-Samanoud and other villages there had been an epidemic in the month of May, as many as four a day dying out of a population of 4,000.

18. Mr. McCullough, an inspector in the Department of the Minister of the Interior, while engaged at Menzaleh, near Damietta, in investigating a judicial case, states that he was convinced by overwhelming evidence that cholera had been raging in the Island of Matariah, on Lake Menzaleh, a month before it broke out at Damietta.

Rheumatic Subcutaneous Nodules.—M. Troisier sums up our knowledge of these bodies in the following description. They are small subcutaneous tumours projecting more or less markedly. Sometimes they are not visible to the naked eye, and can be only made out by palpation, or by putting the skin over them on the stretch. When they occur in the vicinity of joints, flexion or extension of the joint, as the case may be, usually renders them more prominent. They vary much in size, they may be no bigger than a pin's head, or they may be as large as an almond.

They are usually spherical or ovoid, but sometimes disc shaped; their margins are generally well defined. Of firm consistence, they are elastic rather than hard, but pressure does not alter them. The skin is freely moveable over them, and they are often, to a certain extent, moveable on the tissues beneath them, and are adherent either to tendons, superficial aponeuroses, the ligament in the neighbourhood of joints, or to the periosteum. The skin over them is neither red hot, nor thickened. They may be painless. They appear suddenly, and develop rapidly, but occasionally their evolution may be gradual. They usually come out in successive crops, and may last from a few days to some weeks; their absorption takes a longer time than their development; they never leave any permanent traces behind them. They may be found about any of the joints, at all the superficial bony prominences, *e.g.*, the patella, malleoli, olecranon, scapula, crest of the ilium, bones of the hand and the surface of the skull, especially the forehead and occipital region, over the spinous processes of the vertebræ in the ear, and in fact anywhere that they can develop in the superficial aponeurosis. They are often symmetrically arranged. As regards their anatomical seat and minute structure, he is of opinion that they originate in the fibrous tissue of tendon, ligament, aponeuroses, and periosteum, and push their way into the subcutaneous tissue, from which however they never arise, and to which they never become adherent. They are composed of an embryonic tissue, showing at some points more or less of organisation and undergoing in places a necrobiotic change or process of molecular re-absorption. In other words there is a new growth of connective tissue taking origin from the fibrous tissue, but never arriving at such a complete stage of evolution as to deserve the title of fibrous tissue. This view offers a ready explanation of their temporary character, and their tendency to disappear completely. They belong essentially to rheumatism, both by their co-existence with other rheumatic manifestations, and by their mode of evolution, which, in some respects, recalls the shifting and fugitive character of the latter. They are not in themselves of any gravity, and call for no special local treatment.—*Progrès Médical.*

The Doctrine of Acetonæmia in reference to Diabetic Coma.—In the *Progrès Médical* (Nos. 50–51, 1883), MM. Cornillon and Mallat argue, on the strength of one closely observed case, against the theory that the comatose state in diabetes is due to the presence of acetone in the blood. With their opening assertion, that coma is a rare termination of diabetes, we fancy that physicians in this country will not be disposed to agree, for it is generally regarded as the most common termination of diabetes in young subjects. Less objection certainly can be taken to their conclusion, that acetonæmia cannot be considered as the direct and absolute cause of diabetic coma; this accords well with the opinions expressed when the subject was under discussion at the Pathological Society not long since. The authors further conclude, also, that the reddish-brown tint imparted to the urine by perchloride of iron, and the rose tint by sulphuric acid, may be obtained in cases of long standing diabetes quite apart from any coma. These reactions bear no direct ratio to the amount of sugar present in the urine, and they are not usually found in fat diabetic patients; distillation or an intense and prolonged exposure to heat prevent these reactions, cold has not the same effect. In healthy persons, as well as the subjects of diabetes, perchloride of iron produces in contact with the saliva a reddish-brown colour.

Kairin in Enteric Fever.—Dr. T. A. McBride, of the New York Hospital, speaks well of this drug, administered in seven-grain doses every hour until the temperature fell to about 101°F. In addition to lowering the temperature it usually induced copious diaphoresis after a few doses. No bad results had followed its administration in small doses. (*N. Y. Med. Jour. Nov.* 17, 1883).

Cactus Grandiflorus in Cardiac Affections.—This drug is commended in cases of failing heart in which digitalis appears inoperative, or even harmful: also in nervous cardiac affections—palpitations and neuralgic feelings of soreness about the heart. Possessed of apparently the same qualities is the *Cereus Bonplandii*—also introduced by Parke, Davis and Co.; and remedies, exhibiting allied physiological action, are Casca—the ordeal poison of Africa (Lauder Brunton); *Strophanus hispidus* (Professor Frazer); and the dajaslk, or arrow-poison of Borneo (M. Brandoun). Dr. M. O'Hara, in a paper contributed to the Philadelphia County Medical Society on the use of *Cactus Grandiflorus* (night-blooming Cereus) concludes:—1. That Cactus is a pure cardiac tonic, whether for functional or organic disturbances, especially in cases of mitral regurgitant disease. 2. Convallaria, though not of service in cases of mitral regurgitation, appears to be a supplement to digitalis, not replacing it; specially serviceable in backward pulmonary distension from mitral obstruction; and is a fine tonic for nervous or functional cardiac disturbances. 3. Belladonna and strychnine may frequently take the place of digitalis with advantage. 4. Caffeine citrate is ineffectual in heart affections, whether functional or organic. (*New York Med. Jour. Nov.* 17, 1883).

The Vomiting of Pregnancy. — American "*popped corn*," salted to taste, is recommended by Dr. T. C. Wallace as having been found, during four years' experience, to be "always a beneficial, and generally a sufficient remedy." How much of its value is to be attributed to the psychical action of a method of treatment both novel and not unpleasant? (*Med. and Surg. Reporter, Feb.* 17, 1883).

The Blistering Treatment of Acute Rheumatism. —Dr. Francis P. Kinnicut has published his experience of this method, which in England is connected with the name of Dr. Herbert Davies. Struck by the success which seemed to have attended Dr. Harkin's modification of it —so far, at least, as regards speedy relief to pain, control of pyrexia, and shortening of the illness—he determined on putting his form of the treatment into practice in certain acute cases of rheumatism, and in one of acute gout, in the wards of St. Luke's Hospital. A blister was applied over the entire cardiac area, and repeated as soon as the condition of the skin permitted; no internal medication was employed beyond small doses of opium given at night and when demanded by acute pain. The histories of five consecutive cases are given in full detail. He concludes that this treatment affords the best results yet attained in controlling the arthritic symptoms and the pyrexia; but that it seems incapable of hindering or of preventing subsequent inflammations of the endo- and pericardium, and of other serous and fibrous structures. He lauds the administration of the salicyl compounds, so given that the economy may be kept continuously under their influence, continued in the initial dose throughout the first ten days of the disease, and then given in very gradually diminished amount during the patient's entire convalescence. And he speaks highly of oil of wintergreen, in doses of two and a half to three drachms daily; it is best given in sealed capsules. (*New York Medical Record, Dec.* 8, 1883).

REPORTS OF SOCIETIES.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, January 10th, 1884.

Jonathan Hutchinson, F.R.S., President, in the Chair.

Congenital Absence of Lacrimation on one Side.

Mr. A. S. Morton exhibited a child in whom no tears flowed on the left side during crying. It was presumed that the lacrimal gland was absent, or ill developed on this side.

Hæmorrhage into the Sheath of the Optic Nerves.

Mr. A. Q. Silcock showed preparations of the optic nerves as illustrating this occurrence. The patient was a man who died in St. Mary's Hospital, eight days after re-

ceiving a fracture of the skull. He was delirious during life, and no examination was made with the ophthalmoscope. After death, a fissured fracture was found traversing the posterior inferior angle of the right parietal bone, and the right half of the occipital bone, extending from a point two inches above and four inches behind the right external auditory meatus, to the jugular foramen of the same side, the middle and anterior fossæ were intact. There was much extravasated blood in the cavity of the arachnoid, especially over the base of the brain. The sheath of the left optic nerve was much distended, and discoloured near the eyeball from extravasation of blood into it; the clot occupied the subdural space. Mr. Silcock observed that, in Graefe and Saemisch's *Handbook*, it was laid down that such extravasation only occurred in fracture of the base, or through the optic foramen, but in the present case there was no fracture in these regions.

Symmetrical Disease in the Yellow Spot Region.

Mr. WARREN TAY exhibited an infant, aged about six months, showing a peculiar degeneration of the retina and choroid about the macula, quite symmetrical in each eye, and also double optic atrophy. He reminded the members, that during the first session he had exhibited an infant suffering from a precisely similar affection, and the case had been recorded, and a drawing given in the first volume of the Society's Transactions. That child had died, but no post-mortem examination had been permitted. It was the eldest child of the same parents. The second child had also precisely similar changes in its eyes. The present was the third child. It had been brought to him first when six weeks old with double optic neuritis, and at that time there were no changes at the macula. The mother had had no other children, and these were all boys. Mr. Tay did not offer any hypothesis in regard to these cases, but he thought the changes could not be due to embolism.

The PRESIDENT considered that the fact that the disease was perfectly symmetrical in all the cases absolutely negatived the possibility of their being due to embolism. It was important to note that all the children were males, and that there was no consanguinity in the parents. It was essentially a family disease. The retina and optic nerve seemed to be too frail to bear the wear and tear of everyday life. The disease bore some analogy to Kaposi's disease of the skin, in which the skin could not bear exposure to the sun; this affection, too, usually occurred in one sex in a family.

A Case of Sympathetic Conjunctivitis.

Dr. BRAILEY showed a patient, æt. 66, whose right eye had been injured about sixteen months earlier. It was excised on November 29. The left eye began to discharge soon after the accident to the right, and there was still a considerable gummy discharge. It was no better after excision of the right eye, but rather worse.

Mr. J. B. STORY (Dublin) thought that it was rather stretching the use of the term, to attribute the conjunctivitis in this case to sympathetic inflammation. He did not see in its occurrence anything more than a coincidence. It was very desirable that our list of sympathetic affections should not be lengthened.

Mr. ADAMS FROST asked if there was any peculiarity in the course of the disease, or any obstinacy to treatment, that had caused Dr. Brailey to attribute the conjunctivitis to sympathy. Was the fact that the eye had not improved after the removal of the damaged one regarded as evidence of sympathetic disease?

Mr. NETTLESHIP asked what treatment had been adopted for the injured eye; as, if atropine had been used and the eye covered up, an acute conjunctivitis might have been developed out of a chronic one.

Dr. BRAILEY, in reply, stated that he did not know what the original treatment of the damaged eye had been. His reasons for regarding the conjunctivitis as sympathetic were—1, That the eye had been previously perfectly sound; 2, That it resisted all treatment; and 3, That it became worse after the removal of the other eye. Then it must be admitted that the patient had hypermetropia, but vision was very good with glasses. He (Dr. Brailey) believed that conjunctivitis was often due to sympathetic inflammation.

Pseudo-Glioma.

Mr. H. L. JONES exhibited a child, æt. 2 years, the subject of this affection. On October 4 the child had a fall, and two days later was convulsed, with fever, squint, vomiting, and retraction of the head. Four days later there was acute iritis in the right eye, and optic neuritis of the left eye. At the end of three weeks the fever left the patient, but a yellowish white reflex was seen inside the right eye, and the tension of the eye was found to be much diminished.

Congenital Double Pupil.

Dr. BEEVOR exhibited a boy, æt. 9, who presented a peculiar condition of the pupil of the left eye. The pupillary aperture was double, each aperture acting to light and during accommodation vision in this eye was defective. With the right the patient could read Sn 1½, with the left Sn 3. In reply to Mr. Frost, he said that there was no history of syphilis.

The PRESIDENT suggested that possibly the condition was due to a persistent pupillary membrane.

Sympathetic Ophthalmia.

The discussion on this subject, adjourned at the last meeting, was resumed.

Mr. SPENCER WATSON said that one form of keratitis had been described as very common—viz., keratitis punctata. This condition he was familiar with in syphilis, rheumatism, and in cases quite apart from any cachexia, but he had not seen it in sympathetic ophthalmia. What was meant by sympathetic ophthalmia? A second eye might become affected with the same disease as the first, owing to the same cause. After removal of an inflamed eye, as a rule the second eye improved. What was to be regarded as distinct evidence of sympathetic ophthalmia?

Dr. BRAILEY said that sympathetic inflammation was often of a particular character, viz., dots on the posterior surface of the cornea. In syphilis such dots were very rare; they were still more rare in rheumatism. He believed that they were always present in sympathetic ophthalmia, and in this opinion he was confirmed by the experience of Mr. Milles. Sooner or later, dots would be sure to be present. He believed in the existence of sympathetic conjunctivitis, and sympathetic neuritis. The causes of sympathetic mischief were manifold—plastic inflammation, serous inflammation, punctured or non-punctured wounds. He did not think there was any evidence whatever of direct transmission from one eye to the other, and he thought that we must fall back upon the theory of reflex nerve irritation; this was not supported at present by any direct clinical or pathological evidence, though it was by indirect. A foreign body in one eye might produce injection in the second; this did not differ in any material respect from a conjunctivitis with discharge, and therefore might be regarded as an inflammation. Sometimes inflammation attacked the second eye after removal of the first; here there could be no direct transmission, nor could it be directly due to reflex nerve irritation. But by his hypothesis this latter condition had produced an impaired nutrition of the sound eye, which was thus more liable to be attacked by disease.

Mr. J. B. STORY (Dublin) could not allow this theory to pass unchallenged. No one had yet produced inflammation by reflex irritation of a nerve. Sympathetic ophthalmia possessed certain peculiarities: thus irido-choroiditis, if produced by sympathetic inflammation, was peculiar in its course. If caused by simple reflex action, removal of the other eye ought to have a much greater effect than it had If caused by direct transmission, then the removal of the cause would not have much influence. All diseases had at one time or another been attributed to sympathetic influence. Congestion from nerve irritation did not run on to inflammation, nor did the congestion of one eye from a foreign body in the other lead to sympathetic opthalmia. His own experience did not permit him to say whether keratitis punctata was constant or not.

Mr. ADAMS FROST thought that the distinction between congestion and inflammation was clear and definite: in the one the secretion was normal in character, in the other

mucopurulent. The fact that sympathetic ophthalmia might set in after enucleation of the injured eye was against the theory of direct inflammation, but not against that of the spreading by continuity of tissue. That sympathetic irritation differed from sympathetic ophthalmia was proved by the difference in the effect of removal of the injured eye.

Mr. Nettleship agreed that Dr. Brailey ought to have given his cases in greater detail, and hoped he would add them as an appendix to his paper; at present he had not proved his position, and the doctrine that irritation might lead to inflammation was a dangerous one to hold unverified. The occurrence of diffuse keratitis, due to sympathetic inflammation, had not been sufficiently dwelt upon. The optic nerve was frequently inflamed in the early stages of sympathetic ophthalmia, but this differed from the ordinary neuritis or papillitis, in that it was not uncomplicated, but occurred coincidentally with disease of all the other structures of the eye. This was a very important point to remember. As to the mode of transmission, it was very difficult to prove its non-transmission along one or other of the ciliary nerves; and before rejecting this theory, we should recall the complete change our opinions had undergone during the past few years, as to the mode of transmission of optic neuritis.

Mr. Waren Tay had observed punctate changes on the surface of the lens in sympathetic ophthalmia, and asked Dr. Brailey as to the length of interval that had elapsed in his cases after the removal of the injured eye before the onset of the sympathetic inflammation.

Mr. Lawford said that if there was a spreading of the disease by continuity of tissue, it was remarkable that it should never spread in other directions (*e.g.*, to the meninges) as well as to the other eye.

Mr. McHardy alluded to a case he had already published in the St. George's Hospital Reports, where conjunctivitis occurred three weeks after the removal of a damaged eye, and spread in spite of treatment, ultimately developing into a typical sympathetic ophthalmia. He also spoke of the occurrence of keratitis punctata with serous iritis as a disease almost exclusively confined to females. There was an absence of constitutional taint, but generally some nervous disturbance, *e.g.*, climacteric period, or some uterine derangement. It commenced in one eye, but almost invariably, after an interval, the second eye was attacked.

The President confirmed from personal experience the observation of the last speaker. There was in women a very remarkable and very obstinate keratitis punctata, occurring in both eyes, and quite apart from gout, rheumatism, or syphilis. Possibly we should some day admit the existence of neurotic ophthalmia, *i.e.*, a nervous change not spreading from one eye to the other. Perhaps some forms of rheumatic inflammation were of this nature. Keratitis punctata was not a good indication of sympathetic disease.

Dr. Brailey, in reply to Mr. Tay, could only say that the period was considerable; as to what constituted sympathetic ophthalmia he said, that if in ordinary eyes the liability to conjunctivitis were as 1 to 1000, and if, where one eye was lost, that liability was 1 to 100, then he would say that such great liability was due to sympathetic action.

A Case of Paralysis of Convergence and Accommodation.

Mr. Eales read notes of the case of a little girl, aged 13 years, who came under his care on June 1st last, suffering from complete suppression of all power to converge the eyes, together with paralysis of accommodation and the associated contraction of the iris in each eye, though the pupils reacted well to light. From the history of the case, it appeared that this condition began in March last. The patient had never menstruated, had always had good health, having suffered from no illnesses except the usual complaints of childhood, and a mild attack of typhoid fever, uncomplicated by relapses or sequelæ, and none of them related in point of time with the occurrence of the ocular affection. Her mother died of tubercular phthisis. Her father was a subject of gout. There was no evidence or suspicion of syphilis, or of diphtheria, no history of headache or vomiting. The patient was spare and slight, but apparently a healthy and cheerful child. On examination, the bilateral movements of the eyes in all directions, except convergence, appeared to be normal. The disc and fundus of each eye was healthy. Acuity of vision was good in each eye ($=\frac{15}{12}$). The field of vision was normal, and colour-vision good. There was no other evidence of organic nervous disease. Patellar tendon-reflex was normal. There was no evidence of anæmia. Treatment by strychnia and potassii iodidi had no effect on the ocular condition which persisted to the present time. In the absence of any evidence of coarse intracranial disease, Mr. Eales attributed this condition to a degenerative change in those nuclei of the third nerve which had been shown by Hensen and Völckers to preside over the functions lost, and to be situated in the neighbourhood of the aqueduct of Sylvius; but what had caused this degeneration, he did not venture to predict, in the absence of any clear indications.

The Treatment of Cystoid Cicatrix.

Mr. J. B. Story (Dublin) advocated the use of nitrate of silver in the treatment of cystoid cicatrices. In one of 5 mm diameter, occurring after a cataract extraction, he cauterized about a dozen times in the course of a month, having previously split open the cyst with a Graefe's knife. The cure was perfect, and so far permanent. Mr. Story corroborated von Graefe in assigning a very small opening between the cyst and the anterior chamber, and even suggested that in some cases no such communication existed at all. In the case treated by him, no effect was produced on the anterior chamber by the escape of the fluid. He also, like von Graefe, had found the tension generally subnormal in these eyeballs, and had found hernia iridis a frequent forerunner of cystoid cicatrix, but the hernia was not to be regarded as either the cause of, or the first stage in, the growth of the cyst. The eye tolerated the nitrate of silver perfectly, vaseline being applied to prevent the effects from spreading too far. Mr. Story suggested that the actual cautery might be used with equally good results in these cases.

CLINICAL SOCIETY OF LONDON.

Friday, January 11th.

Sir Andrew Clark, Bart, President, in the Chair.

Subcutaneous Nodules occurring in an Adult not the subject of Rheumatism.

Dr. J. Kingston Fowler read notes of a case of this affection.—The patient was a man, æt. 35, a railway porter, who came as an out-patient to the Middlesex Hospital, on Oct. 26, 1883, complaining of loss of appetite, pain in the epigastrium after taking food, and emaciation. There was no history in the family of syphilis, gout, or rheumatism. He had been fifteen years in the 2nd Life Guards without being in hospital a day. When 25, he had gonorrhœa, and a sore on the glans penis, the latter was probably not specific. Three years ago he first noticed a lump beneath the right patella, it was then small and slightly tender. This gradually increased in size, the tenderness soon disappearing. About one month later a similar swelling appeared beneath the left patella, and gradually increased in size. Nodules appeared beneath the elbows shortly after. These remained, but no fresh ones appeared until four months ago, when he discovered a small one near the right trochanter major; it

was tender—and is so still—to a slight degree. This disappeared in a few weeks, but re-appeared after an interval of one month, and has since grown steadily. Shortly after its second appearance, a similar nodule was noticed near the left trochanter major. Similar growths have since appeared over the buttocks. On close examination as to any history of rheumatism, the only fact bearing upon it elicited was that for the last two years he has had occasional pain about the knees after working hard, and then resting; the pain would occur perhaps two or three times a week. For the last six weeks he has complained of almost complete loss of appetite, with pain after food, and constipation. He has lost a stone and a half in weight. The nodules are arranged with almost perfect symmetry, and present the following general characters: — They are subcutaneous, nearly all are separable from the skin and from the subjacent structures, and are freely movable. The skin overlying and around them is normal. They occur singly, and also in large clusters, some of the large masses consisting of congeries of smaller ones. The single nodules are hard and shot-like to the touch, the larger masses are lobulated, and not so firm. They are not painful; but one near the right trochanter major is slightly tender. The distribution of these growths is as follows:—*Right arm*—On the posterior surface of the ulna three nodules situated about two inches from the olecranon, one as large as an olive, the others the size of peas. *Left arm*—Two nodules in like position, and of about the same size. *Ischial tuberosities*—Beneath the skin, which in the sitting position overlies the ischial tuberosities, there are on the right side six nodules forming a single mass, the size of a Tangerine orange—a rather smaller nodule is present on the corresponding spot on the opposite side. *Great trochanters*—Two inches below and a little behind the right trochanter major there are two collections of nodules forming a ridge about equal in size to a walnut; on the left side there are two smaller masses. Below each patella there is a nodule the size of a walnut. A small nodule is present below the internal condyle of the right femur, and another over the anterior surface of the right tibia. Reference was made to the original communication of Drs. Barlow and Warner, describing the occurrence of subcutaneous nodules, similar in many respects to those found in this case, in children and adolescents the subjects of rheumatism, and also to the cases of two adults, related by Dr. Stephen Mackenzie and Dr. Dyce Duckworth, in the last volume of the Society's Transactions. It was pointed out that in the situation, symmetrical arrangement, free mobility, absence of pain or infiltration of overlying integument, these growths were similar to those found in association with rheumatism, and also that the situation of the growths had probably been determined by the irritant effects of pressure. Further experience may prove that they occur under a variety of conditions which have hitherto been overlooked.

Dr. Duckworth said the case closely resembled one brought forward by him last session. He had also seen cases of nodules occuring in children chiefly about the patella; in adults he had found them often over the ulna. He thought Dr. Fowler's case showed that there were several varieties of these nodules. In adults, the nodules differed from those found in children, in being larger and harder. They also differed in this respect, that in children they often disappeared in a few months, while in adults they did not pass away. The only effectual treatment in adults was to excise them. In some cases the rheumatic history was vague and heart disease was not present.

Dr. Barlow, in answer to the President, did not think that all these nodules were necessarily rheumatic. He had found similar looking nodules in a gouty subject; but on examination they were proved to contain urate of soda. Since the paper by Dr. Warner and himself was published, he had had an opportunity of observing some further cases. In regard to treatment he referred to one in which no cardiac affection was present, and in which he had tried salicylate of soda in gradually increasing doses. The nodules however, increased, and a cardiac murmur appeared in due time. Subsequently the nodules passed away. In some cases he had found repeated blistering successful in causing the disappearance of nodules of small size. He had not found iodide of potassium of any use.

Dr. Mahomed mentioned a case illustrating the disappearance of such nodules. The patient, a female, had subacute rheumatism, but no heart complication. Two subcutaneous nodules which she had disappeared in a few days under the use of salicylate of soda. He would like to hear from Dr. Barlow in what proportion of cases of rheumatism such nodules were present.

Dr. Glover referred to a case of subacute rheumatism, in which some nodules were present, which disappeared partially under the use of iodide of potassium and carbonate of ammonia.

Mr. R. W. Parker thought that these nodules appeared more frequently in cases of subacute than of acute rheumatism. As to their exact position, he had removed nodules on five different occasions, and had always found them situated on the outer surface of the fibrous aponeurosis. He asked where the gouty nodules referred to by Dr. Barlow were found.

Dr. Lee also referred to a case, and spoke of the connection of these nodules with rheumatism and chorea. In his case, the nodules were limited to the right side of the body, where the chorea also showed itself most marked.

Mr. Lucas could corroborate the remarks of Dr. Duckworth as to the difference between these nodules in adults and children. He referred to a case in which salicylate of soda and iodide of potassium had been used without good effect, and he had subsequently removed the tumours in the hospital. The patient, a female, had no rheumatic history, and no heart disease.

Dr. Gilbart Smith had seen two cases in adults without rheumatic history or heart disease.

Dr. Money held that in children, at least, these nodules occurred very frequently He thought that they would be found in probably half the cases of rheumatism. He had seen them disappear in the course of four days. He agreed with Dr. Barlow as to their value in the matter of prognosis.

Dr. Fowler, in reply, drew attention to the fact that in his case all the nodules occurred in spots subject to pressure.

Cortical Tumour, with Great Variety and Frequency of Epileptiform Seizures.

Dr. Coxwell contributed a case of the above affection:—Ten years ago, G. R., a young man, then æt. 20, began to suffer from fits, which always had as their starting point the right hand, and never had a greater range than the right arm and right side of the face. Five years later he came under the care of Dr. Gowers at the National Hospital for the Paralysed and Epileptic. He was admitted as an in-patient for the last time in February, 1882, under Dr. Radcliffe, who kindly permitted the publication of the case. He then had optic neuritis in the left eye, but not in the right. There was some paralysis of the right arm and right leg, but none of the face. The deep reflexes were all in excess on the right side, with right foot clonus. Dr. Coxwell during eleven months was enabled to make careful observation of the mode of onset of many of his epileptiform seizures. When the fits were frequent, an hour spent at his bedside was rewarded by a view of several fits. As the time was summer, he could lie without danger with his limbs uncovered, and if they were placed in a position of semi-flexion or semi-abduction, as the case might require, the slightest initial movement could not fail to attract attention. In the numerous cases of cortical tumour which have been recorded, the fits have nearly

invariably been described as beginning in the same place. In this case, however, during the last year of the patient's life there was great variety in the starting place and range of the fits. The patient died in January, 1883. A large number of Dr. Hughlings Jackson's statements with regard to epileptiform seizures were exemplified in this case. Mention, for instance, was made of temporary paralysis of right side of face, or of right arm, caused by fits affecting these parts; of the connection between the occurrence of aphasia and fits affecting the right side of the face; of the fact that when spasm spreads from the side first affected to the other, it passes to the leg of the second side and not to the arm or face. The patient had every variety of fit, including some of the ordinary epileptic type, characterised by sudden loss of consciousness and general convulsion. It had been stated that these fits do not occur in such cases; perhaps the greater and widely spread instability which this kind of fit implies was the result of the extraordinary frequency of the fits, and the great duration of the case (ten years). There was a tendency at different times for some special type of fit to occur, sometimes the face alone being affected, sometimes chiefly the right arm, sometimes the whole of the right side, and so on. Perhaps the explanation was that the tumour created instability in cortical areas adjacent to that in which there were pathological changes, and that when the instability reached a certain degree of intensity, explosive discharges occurred in them, causing spasm in corresponding sets of muscles. The spasm having attacked the arm, nearly invariably proceeded upwards—extremely seldom downwards. One never saw a twitch at one joint—say the elbow—then a twitch at the knee, and then at the mouth. In each case, on the contrary, there was a definite line of march of the spasm, either up or down a limb. These facts seemed well explained by the localisation theory. The tumour was found at the autopsy to be a glioma affecting the posterior parts of the first and second frontal convolutions, and the extreme summits of the ascending frontal and parietal convolutions on the left side. Its position therefore corresponded very fairly with what one would have expected, from the fact that during the first nine years of his illness the spasm always commenced in the right hand. This man often had 200 or 300 fits a day. In the last year of his life, 21,800 fits were counted.

Dr. Beevor had had an opportunity of seeing the case, and could corroborate the account of the fits given by Dr. Coxwell. He had tried, by tapping the head, to localise the seat of the lesion, and found tenderness corresponding to the part where the tumour was found. He had made observations as to ankle clonus in ordinary cases of epilepsy, and found it increased for about five minutes after the fits.

Dr. Glover would like to hear if the patient had ever hurt himself in any of his fits.

Dr. Coxwell, in reply, stated that he also had noted the tenderness spoken of by Dr. Beevor. As regards personal injury, he had not found that the patient had ever sustained any in the fits.

Annual General Meeting.

The business of the Annual General Meeting was then entered upon.

Election of Officers.—The President read the report of the scrutineers of the ballot, Dr. Gilbart Smith and Dr. Hadden stating that the list proposed by the Council had been unanimously approved.

Mr. Warrington Haward (the Secretary) read the report of the Council for the past year, from which it appeared that 21 new members had been added to the roll of the Society, and eight members had been removed by death. Three committees had been appointed during the year.

The Treasurer, Mr. Heath, submitted the financial report, which showed a balance in the banker's hands of £160 11*s.* 2*d.* He made also a feeling reference to the great loss which the Society had sustained in the death of Mr. Wheatley, whose continuous and ready aid those engaged in the business of the Society had so much cause to appreciate.

Mr. Gant proposed that the report of the President and Council, together with the Treasurer's report, be received, adopted, and printed in the Society's Transactions. This was seconded by Dr. Glover, and carried unanimously.

Dr. Cholmeley moved, and Dr. Duckworth seconded, a vote of thanks to the retiring vice-presidents, Dr. Broadbent and Mr. Lawson, and to the other retiring members of the Council, for the services they had rendered during their several terms of office. This was carried unanimously.

Mr. Berkeley Hill proposed a vote of thanks to the retiring secretary, Mr. Warrington Haward, paying a high compliment to the manner in which he had performed the duties of the office. Dr. Frederick Taylor seconded the proposal, and the vote was unanimously accorded.

Mr. Haward, in reply, said he esteemed very highly the vote just passed, taking it to mean that the Society considered that he had at least done his best. He had been fortunate in being associated with such colleagues in the secretarial office as Dr. Taylor and Dr. Coupland. He had been well repaid for any labour which the office entailed, by the interest and instruction which he had always found in the meetings of the Society. With regard to the loss sustained by the Society in the death of Mr. Wheatley, he wished to express the feeling of sorrow with which those, especially who had been secretaries, must miss the kind and courteous help which Mr. Wheatley was always so willing to give. Mr. Wheatley had rendered to the Society most valuable aid.

The President could endorse all that Mr. Haward had said regarding Mr. Wheatley, whose amiability and well stored mind must have impressed all who came into contact with him. He would sum up all his many excellent qualities by saying that Mr. Wheatley was an upright man.

Mr. A. Pearce Gould then gave a demonstration of the use of the endoscope with the aid of the electric light. The appearances of the healthy urethra were first demonstrated: and subsequently those characteristic of gonorrhœa were well displayed.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, January 15th, 1884.

J. W. Hulke, F.R.S., President, in the Chair.

At the commencement of the meeting the President made a graceful allusion to the great loss the Society had sustained in the death of Mr. Wheatley, and stated that the Council had passed a resolution expressive of their sympathy with his family.

Two Cases of Mediastinal Tumour.

Dr. Norman Moore described these:—1. Endothelioma of the pericardium. Microscopic sections were shown, with drawings, of a new growth found in the pericardium, and of secondary new growths from the lung, clavicle, and supra renal capsule. The growth consisted of abundant large, flattened, nucleated cells of an endothelial type, contained in well-marked alveoli. In all the places on which it was found, the new growth was of an absolutely uniform structure. The specimens were from a man, aged 37 years, who was under his care in St. Bartholomew's Hospital. His illness began with shortness of breath and hæmoptysis, and lasted about five months. On admission he complained of severe pain about the sternum. The breathing sounds were natural and the heart sounds clear. The cardiac impulse was feeble. His breathing became more and more rapid and laboured, and he had paroxysms of urgent dyspnœa. On September 24 a swelling was noticed on his left clavicle; it was firm, but not very hard. On October 3 his chest gave

the following physical signs: Absolute dulness behind, from the spine of the scapula downwards. Over no part of the dull region were vocal vibrations quite absent, and at the extreme base some sound, as of air entering the lung, was audible. A subcrepitant rale was to be heard just below the root of the left lung. Exactly over the root of the left lung faint bronchial breathing was to be heard, but no bronchial breathing anywhere else. In front there was a peculiar hyper-resonant note just below the left clavicle, and elsewhere on the left side absolute dulness. The right side was normal, and so were the heart sounds. Three days later dulness had increased upwards on the left side, and in the evening he decided on paracentesis, and 27 oz. of clear serum were drawn off with an aspirator. After this, a loud rough sound was heard over the lower part of the left back. His dyspnœa, which had been very urgent, was relieved, but became urgent again in two days, and on October 10 he died. His evening temperature had been raised throughout. It was usually above 100, and often above 101. On the following day a post-mortem examination was made. The pericardium was much distended, and contained bloodstained fluid. At the base of the heart, and for one-third downwards upon its surface in front, and two-thirds downwards behind the visceral layer of the pericardium was infiltrated with a whitish firm new growth, and this extended to a somewhat less extent on the parietal surface. The muscular substance of the heart was nowhere penetrated. At the root of the left lung the new growth had penetrated the main bronchus for half an inch, and actually formed its wall. It extended a little way only into the lung. Both in front and behind, the mass of new growth was in contact with chest wall, thus explaining why, in spite of a large pericardial effusion, the heart sounds were distinctly audible, and why, in spite of the pleural effusion, neither vocal vibrations nor air sounds were quite absent over the region of dulness. The lump on the clavicle was associated with some wasting of the bone, and was firmly attached to the bone as well as the periosteum. The bronchial glands were involved. Below the diaphragm the new growth was only to be found in the supra renals, both of which were infiltrated and enlarged. There was no pigmentation of skin. The clinical features, as well as the naked eye appearances, pointed to the conclusion that the new growth began in the pericardium. Its microscopic structure pointed to its having originated in the endothelium of the pericardium.

2. Microscopic section, with drawing of a new growth which occurred in the mediastinum of a man aged 18, who died in St. Bartholomew's Hospital, under the care of Dr. Gee. The growth was a round-celled sarcoma, with a meshwork and spaces resembling those of a lymphatic gland, and was of a type often found in the mediastinum. The patient was ill about two months. The mediastinal tumour was made out during life. There was a pleurisy of the right side, from which 50 oz. of sero-purulent fluid were drawn off. The evening temperature was for a fortnight above 100°, and for the last month, during which the pleuritic physical signs became more distinct, was above 101°. Post-mortem: A new growth was found upon the upper and outer part of the pericardium. It pressed upon the trachea and the aorta, and occupied precisely the position of the thymus gland in a child. The new growth extended above the clavicle, involving the lower cervical lymphatics. The right lung was adherent to it, and the adhesion only infiltrated. No other organs were infiltrated. In the last four years Dr. Moore had examined, post-mortem, six other cases of new growth in the mediastinum. In all recent pleurisy were present, as it was in the two shown that evening. This observation, and the fact that two tumours of such different histological appearance were both associated with rise of temperature, pointed to the conclusion that the rise of temperature in cases of mediastinal new growth was due to the attendant pleurisy, and not to the nature of the new growth.

Mr. BUTLIN said the great question was whether these were cases of endothelioma or not. No doubt it was much more common than usually believed. It was difficult to determine the origin of these growths. Two distinct kinds were recognised—one with cell nests, the other like hard or soft cancers, both very malignant. Dr. Moore's case belonged to the second group.

Mr. JESSETT spoke of a case of mediastinal tumour he had seen, in which there was no pleurisy.

Mr. CROFT referred to the character of the fever; it might be hectic or continuously febrile.

Dr. GOODHART said that many cases of tumour with rapid cell growth had no fever. He referred to the case of a lady, who died of cancer of the gall-bladder with a little peritonitis.

Mr. MORRANT BAKER said that variable fever was not diagnostic against tumour, as had been generally supposed.

Dr. MOORE referred to Dr. Church's paper in St. Bartholomew's Hospital Reports, pointing to hectic fever as evidence of lymphosarcoma; a belief he considered erroneous, as he attributed the fever to pleurisy.

Dr. DUCKWORTH spoke of the attacks of fever that were observed in these cases, coming and going without other symptoms; he was inclined to attribute them to the growth of the tumour.

Mollities Ossium.

Mr. ARBUTHNOT LANE showed the bones from a case of mollities ossium of the bones of the skull, the occipital, temporal, and sphenoid were alone affected, more externally on left than on right side, and the inner table more than the outer. The progressive line of softening was very apparent. It did not extend across the sutures to the adjacent bones. The softened bone showed a decalcified zone with what appeared to be the depositions of decalcified lamellæ of new bone on it. The sutures were loose, allowing of free movement, the ribs, pelvis, and scapula presented apparently ununited fracture with fibrous union. These, however, proved to be due to a very rapid decalcification of the bone at the point of greatest strain, accompanied by periosteal and endosteal deposit, causing the thickening. The articular cartilages of left knee-joint were extensively ulcerated; there was a good deal of bony growth on the margin of the condyle and patella. The right knee, elbow and shoulder-joint presented the same appearance. The temporo-maxillary articulations were destroyed, especially on the right side. He also showed the bones from a case of rheumatic arthritis, which presented symmetrical affection of the temporo-maxillary elbow and hip joint. The heads of the femora were enlarged, and presented in the centre of the convex articular surface, a loose disc of bone and articular cartilage. He considered that Charcot's disease was merely rheumatic arthritis affecting a patient with feeble osseous system. The bones of cases of Charcot's disease were very light and porous. The wasted bones of a feeble patient, as in an old ataxic underwent a rapid retrocession to the fibrous condition under the influence of rheumatic arthritis.

Mr. CROFT asked why this was a case of rheumatoid arthritis. Some reform was needed in the classification of joint diseases. Many cases were called rheumatoid arthritis without any clinical evidence.

Mr. HULKE thought the term was often used rather loosely, and perhaps without much evidence of rheumatoid arthritis.

Mr. Eve said that rheumatoid arthritis and Charcot's disease were very similar, but yet there were great differences. In Charcot's disease the articular surfaces of the bones were much worn away, far more than in rheumatoid arthritis. In the latter the surface was always eburnated. In Charcot's disease the nervous system played an important part in preventing repair by damaging the nutrition.

Dr. Duckworth believed that rheumatoid arthritis and Charcot's disease were quite distinct; careful observation proved this. He said that pathology must be corrected by clinical observation. Mr. Lane had not alluded to the extreme effusion into the joint in Charcot's disease. Mr. Eve's suggestion was very probable.

Dr. Norman Moore said we ought to have a good reason for calling these cases of mollities ossium.

Dr. Goodhart thought that for the present Charcot's disease must be open to criticism, partly because the cases were very rare. Had enough cases been met with to justify a separate class being made for it? Did morbus coxæ senilis differ from Charcot's disease?

Mr. Eve believed that Charcot's disease was rheumatic arthritis with nervous changes.

Dr. Hale-White had lately seen three cases of Charcot's disease, with enlargement of the ends of the bones. A pamphlet had lately appeared, showing that no sharp line could be drawn between cases where there was much "bossing" about the joints and cases in which there was no outgrowth.

Dr. Ormerod thought that we could not decide this question on anatomical grounds alone. Charcot's joint affection began in a peculiar way—*vide* the effusion without pain or fever. He referred to a paper by Pitres and Vaillard on the subject of peripheral neuritis.

Dr. Money had seen great muscular atrophy in cases of joint disease, and thought therefore that peripheral neuritis was no argument.

Mr. Bowlby said that the absence of pain was not a proof of the absence of inflammation, and instanced the case of a whitlow.

Mr. Hulke did not know the anatomical difference between rheumatoid arthritis and Charcot's disease. He referred to a case of Mr. de Morgan's at the Middlesex Hospital, with bony outgrowths. A second case had similar changes, with signs of disease of the nervous system.

Mr. Lane briefly replied: he thought that if he had been able to show the specimens of temporo-maxillary articulations, they would have been universally admitted to be cases of Charcot's disease.

Section of Galls.

Mr. Cripps said that a large class of insects of the hymenoptera tribe were the cause of the galls, and not the ichneumon fly; the latter bores his way in and deposits ova in the body of the cynips. Different galls affected different parts of the same tree, caused by different animals; he then briefly described their structure, and mode of growth, and repair.

Dr. Cobbold referred to a monograph by Mr. Fitch on the subject.

Mr. Shattock, as regarded the reproduction of the epithelial lining of the gall, said, that scar tissue never produced hair. The gall might be formed by involution of the leaf. It would not be very likely to be produced from the epithelium, as suggested by Mr. Cripps. There was no proper retiform tissue.

Mr. Eve said, that by admitting that a parasite might cause a tumour, we were taking a great step. We should all admit that an irritant could cause a tumour.

Mr. Cripps briefly replied.

Secondary Localised Emphysema from Minute Emboli.

Dr. Heneage Gibbes (in connection with the investigation being made jointly with Mr. J. B. Sutton, into Tuberculosis in Birds) had examined a number of animals with morbid changes in their lungs and other organs. In their former paper, read by Mr. Sutton last November, they had shown that most of a certain class of birds had become tuberculous, and animals fed on these birds had also become tuberculous. This portion of the inquiry they were still pursuing, and they had obtained some very important facts which they hoped to bring before the Society in a short time. The two cases brought forward by Dr. Gibbes were—(1) That of a Koodoo antelope, the fresh lungs of which appeared to be studded with tubercles. These, however, disappeared on hardening the organ. On making sections, they were found to consist of small emphysematous areas, caused by minute emboli which had blocked up the vessels and cut off the blood supply from these areas. This had probably taken place some time previously, death having occurred from pneumonia. (2) Nematode worms in the lung of a Beatrix antelope. There were nodules under the pleura, not visible to the naked eye, but which could be felt on passing a knife over the surface. On section, these were found to contain the parent nematode worm, and ova in every stage of development up to the larval form. The parent worm was not coiled up, but twisted through the lung substance. Dr. Gibbes had not been able to dissect out the whole length of the parent worm from want of time. A section of the parent worm showed a number of ova in the abdominal cavity which corresponded exactly with those found in the lungs. The ova showed the various stages of development, until the larval form was reached. No intermediate forms between this and the parent worm were found. Dr. Gibbes considered that at this stage, it sought some other host, as he found numbers in the bronchial secretion. In January, 1882, the Koodoo antelope was found to be suffering from a copious discharge from the nose and mouth. In a few days all the animals in the antelope's house were similarly affected. The Koodoo died, but the Beatrix recovered. About two months later she was again taken ill, and gradually wasted and died. Dr. Gibbes had not been able to find any similar case recorded. Drawings and microscopical specimens were exhibited.

Dr. Cobbold said that many animals perished annually from parasitic lung diseases. He had seen in various animals forms in their larval condition quite indistinguishable from that shown to-night. Only two forms had hitherto been seen in antelopes and deer up to the present. He believed that this was an example of *strongylus rufescens*, which had not as yet been seen in antelopes.

GENERAL CORRESPONDENCE.

THE PLETHORA OF CONSULTANTS.

[To the Editor of the Medical Times.]

Sir,—Your correspondent "M.D." seems to me to be combating a phantom. Did anyone, unless perhaps some perfervid junior, ever maintain the proposition he is puzzled to understand, that "the 'consultant,' the hospital physician or surgeon, is *necessarily* a superior person to the 'general practitioner,'" or make the assumption which he denies, that "a man is a leader because he is a consultant?" If such notions anywhere really exist, they may be safely left to refute themselves.

"Consultants" of some kind, men specially selected to give an opinion in doubtful or difficult cases, I suppose there will always be in our profession. The only practical question is, have we the best method of selecting and training them. In some towns remote from the great centres, selection by the *vox populi* prevails; the elder practitioners who have attained the greatest repute with the public, relegating midwifery and minor surgery to their juniors, and practising as consultants at advanced fees.

I scarcely think this plausible method of selection a good one. The public is not a very trustworthy judge of medical skill, and, when left to its unaided instincts, is apt to make

favourites of men more remarkable for knowledge of the world than for knowledge of pathology. The London system, which gives the schools and large hospitals the key of the position, seems to afford a better security. Schools there must be; and these schools must have teachers. It hardly needs demonstration that the teaching will be best carried on by men who make it their life's work, and that both teachers and schools must in some way be connected with large general hospitals. Granting then the existence of medical schools, it can hardly be but that the school-teachers, selected in the first instance by their seniors, furnished with opportunities for exact study, disciplined by the continual presence of a watchful class of students, with a pathologist playing Minos in the background, and, finally, introduced into practice by men of their own school, who have had ample means of gauging their merits, should be accepted as the natural consultants of the profession. Some school-men, no doubt, prove failures; but the failures are easily recognised, and are treated as such; while unmerited success is hardly possible through connection with a school.

It seems, further, not illogical to assume that the officers of the great special hospitals, even without the addition of a school, are likely to become eminently qualified to advise in their respective departments; and these two classes, the school-men and the special-hospital men, with a few individuals whose independent scientific work has won professional recognition, are, in fact, the London consulting body. By a salutary regulation of the leading hospitals, the consulting body is brought under the disciplinary rules of the higher grades of the London colleges; but the colleges, as such, no more *create* consultants than the bench of bishops makes parish clergymen.

The weak point in the London system, as I pointed out in my former letter, is the money-qualification necessitated by the present state of remuneration, which deters many able men from competing for school positions.

It is also much to be regretted, assuming that a general complaint is founded in fact, that the bounds of consulting practice are so laxly regulated, and that many, even leading, consultants are found to use their position to acquire what is virtually a good general practice. I regard this dabbling by consultants in general practice as an offence, and in a leader a grievous offence, not because it sacrifices an imaginary dignity (I see nothing undignified in general practice) but because it destroys the confidence which every man in the profession should be able to feel—that in procuring his patients the benefit of a second opinion, he runs no risk of seeing them taken from his charge.

The maintenance of a proper standard of consulting fees is probably the most efficacious remedy against this "dabbling." A consultant whose lowest fee is five guineas, is not very likely to be summoned to frequent attendances without due cause; one whose fee is ten or twenty, still less likely. The senior men, if their own practice is settled on a satisfactory footing, will have little difficulty in keeping their juniors in order.

I am, Sir, &c.,

January 15,1884. Z.

[To the Editor of the Medical Times.]

SIR,—I think "M. D." misunderstands both the present and the past relations of consultants to general practitioners, and is fostering an imaginary grievance. In the past there was a marked *social* distinction between the physician and the apothecary; the former was a graduate of a university, usually a man of learning and culture, a gentleman, and associating with persons of rank; the latter was a tradesman, and though often enjoying a large amount of public esteem and confidenee, occupied an altogether different social level. All this is a thing of the past, but there still lingers in the popular mind a traditional respect for the title of physician; hence the eagerness of Licentiates of the College of Physicians to style themselves physicians on the door-plates, window blinds, bill heads, bottle labels, &c. These are the men to whom has descended the dimmed glory of that ancient and honourable name.

But though the older physicians were generally distinguished as a body of learned men which produced many eminent workers in various branches of science, there can be no doubt that they possessed a very moderate share of clinical experience or practical acquaintance with disease, and were, as a body, inferior to the apothecaries in strictly professional knowledge. At the present time, on the contrary, consultants are those who have prepared themselves for special lines of practice by prolonged study of certain departments of disease; and it is only by virtue of their superior knowledge, acquired in almost all cases through the opportunities afforded by hospital appointments, that they hope for the confidence of their professional brethren and of the public. No doubt, general practitioners nowadays are superior in general attainments and professional knowledge to their predecessors the apothecaries, but it is certain that this advance has not kept pace with the vast strides that have been made in the progress of medical science, more especially by the development of special branches. The present curriculum barely suffices to give students a groundwork of general information, which, unless supplemented by special studies in every department, opportunities for which are incompatible with the duties of general practice, cannot suffice to fit them to deal adequately with many disorders which they must meet with in practice. The fact is, that so far from there being no difference between consultants and general practitioners, there never was a time when this distinction was better defined or more clearly justified.

I should be glad to see senior consultants raise their fees, as it would tend to increase the amount of practice done by middle-aged men. It is very doubtful if it could benefit the juniors, as we have the experience of the bar, at which the rule of raising fees is rigidly enforced, and the seniors are constantly removed by promotion; yet junior barristers are supposed to have quite as bad a price as junior consultants in medicine and surgery.

After all, I do not think the latter have much cause to grumble. There are infinitely more means of making money open to them than there were a few years ago: the appointments of insurance companies, sanitary authorities, and other public bodies; the large sums paid for medical writing, teaching, lecturing, &c., forming in the aggregate a very considerable amount to be distributed; and, lastly, the possibility of obtaining a moderate amount of practice at a comparatively early age, by paying attention to a special subject. It is somewhat arrogant of anybody to pretend to advise young men as a class; there are so many circumstances to modify each case, that such general advice becomes useless when applied to individuals. I imagine young men will moreover continue, perhaps not universally, to disregard the warnings of their seniors, who are, perhaps, a little apt to exaggerate their own early difficulties and the exceptional character of those abilities which enabled them to overcome them.

I am, Sir, &c.,

January 14, 1884. MEDICUS.

[To the Editor of the Medical Times.]

SIR,—If the few well-known leading consultants read the letter of "M.R.C.P." in your impression of January 5th, with the table of fees arranged so pleasantly for juniors, I think they would have exclaimed, "Audi alteram partem!" I am as anxious as anyone to see the "leaders" of our profession raise their fees, but, as matters stand at the present time, juniors must be reasonable. Were any great difference made in the scale now in use, it would cut off three distinct classes of patients from the consultants in question. First, there is the patient who does not feel ill, but is still "not quite up to the mark," and who, therefore, thinks he will call upon the physician he has been in the habit of consulting for, perhaps, years. He tenders his guinea, as he would do on several occasions should it be necessary to continue the consultations. Next, there is the class of invalids—mostly ladies—who, although not ill enough to have a constant attendant, nevertheless, desiring the best advice obtainable, like to be visited, from time, by one of the leading consultants, and who willingly gives the ordinary fee of two guineas. Thirdly, there is another class of patients most lucrative to the consultant, viz., those who are wealthy and, becoming acutely ill, wish to have in consultation with the

regular medical attendant their favoured physician once or twice daily until convalescence is established, gladly giving two guineas each time. I believe that if the fees are greatly raised these patients will be quite taken away from the foremost consultants, for although a patient will, with pleasure, give a guinea for advice at a physician's house, he will hesitate before giving three times as much, and it would be the same with patients who desire to be visited at their own homes. These remarks do not apply to those who come from a distance to London specially for an opinion, as, of course, they would give whatever fee was asked.

Now, the result of this loss to the above consultants would be exactly what "M.R.C.P." and your other correspondents desire, viz., that the juniors would have a chance of gaining a greater number of patients. But, as a matter of fact, I consider the leading consultants cannot afford to raise their fees, as it would clearly diminish their incomes. It is, however, quite certain they would do it if they could, and since it is not done, the inference is that, owing to the immense competition in our profession, they do not have, as a rule, more work in the twenty-four hours than they can undertake. It is very easy for any physician to refuse work should he have more than he is able to accomplish, but we all know how difficult it is to secure it.

Finally, we must remember that "life is short," and that the foremost of our profession only fall into the swing of real consulting work when they are fairly advanced in life, and have, therefore, at the best, but comparatively a short time in which to make up for years of unremunerated labour, and to provide for the future and their families. How poorly the latter is done the wills of medical men often prove! If the consultant happen to be a baronet, with a son, he must work all the harder, for he has not only to provide for his own future, with possibly failing health, but he must endeavour to leave behind him something substantial wherewith to keep up the baronetcy.

If the younger consultants are disappointed with their lot they can follow your advice and strike out another line for themselves; but I think a great deal of the disappointment which prevails is due, as pointed out by "A Contented Consultant," to increasing expenses—expenses which were probably not fully considered at the outset of their career.

My own opinion is that, as our education has made such rapid strides within recent years, and so many men take the very best qualifications which can be had, the distinction between consultants (so-called) and others will gradually die out, although a few men, through their own talent, will always be more sought after than the others.

All who are intimately acquainted with young consultants know how thankful they are, speaking generally, to do anything which comes within their reach, whether or not it strictly belongs to their particular province. Such must often be distasteful to them, but they cannot always help it, for they, as others, must live. But, clearly, this should not be. If, therefore, there is to be a change, we must begin at the source of the evil; physicians and surgeons attached to hospitals must be sufficiently paid for their work. This would allow them to wait patiently for their turn of good fortune, whilst it would enable consultants in the first rank to considerably raise their fees, for, before attaining to that eminence they would have been adequately remunerated for services rendered.

Should anyone desire to perform his hospital work from a purely charitable spirit he could, at any time, refuse his salary.

I am, Sir, &c.,

Jan. 15, 1884. X.

[To the Editor of the Medical Times.]

Sir,—The plethora of consultants is, I think, more apparent than real. That a larger number of so-called consultants exists to-day than existed, say, 20 or 30 years ago, I quite admit, but London and our other big cities have grown enormously in the interval. This plethora, however, is largely the result—and not a bad one—of the improved education which the young medicus now gets, and the disparagement (if there be any) in the term "general practitioner" is the natural outcome, on the one hand, of the older and very insufficient education which was once considered good enough; and, on the other hand, of that deterioration (by no means confined to "G. P's.") which all men scientifically undergo who are not constantly keeping themselves abreast of the times. And how can it be otherwise? Nine-tenths of the ordinary students qualify as soon as they possibly can, and disappear from the hospital; that is, they give up all further systematised study of their profession. Can it be wondered at that, after a few years in a quiet town or country place as general practitioners, they should become a little rusty on theoretical and scientific questions, and a little less "well up" in the newer methods and signs of diagnosis than the generation which is rising and pushing on ever with increasing energy and improving opportunities. How specially true is this of the operating surgeon! Constant practice can alone "keep the hand in" and increase its natural cunning! The remaining tenth of the students—including probably among them the best educated and most energetic of the whole number—continue at their hospital for, it may be, years beyond the regulation period: they hold the resident appointments, and fill the minor posts at the schools. Many of these, not having private means, then settle down in general practice, and, if a medical man's life can be called happy, they are happy and even successful. They are fully appreciated by their patients and by the "heads" of the profession. The remainder become the "consultants," about whom some of your correspondents speak so slightingly. If they knew the "grind" which is necessary to success, they would hardly envy them; they would certainly not "sit upon them" so unmercifully—they might even "employ" them. The "heads" of the profession are the picked men of those "consultants," and stand in the same relation to them that a sound well-educated general practitioner does to the immature product of the curriculum pure and simple. It is very desirable that there should be a goodly number from which to select, and in eight cases out of ten it will be found that the "weaker go to the wall." I fail to see that there is a plethora such as you suggest: the supply is regulated by the demand. I think nothing will so conduce to the dignity and social status of the profession as the attempt to keep up this supply. Why should not every man who enters the profession become a "consultant?" I have briefly sketched out the plan that must be adopted, and the additional years which have to be devoted to study. The profession will not be any the worse for it, and I feel sure the public will gain. The separation of the drug business from the practice of medicine would be one of the first results; while the numerous hospitals springing up all over the country would thus secure able and well educated men for their staff appointments.

The "heads" of the profession could then be chosen from the whole profession, rather than, as at present, from the minority, and might be called "consultants" (provided always they limited themselves to consultation cases), while the rank and file might adopt the titles at present in use, "physician" or "surgeon," in accordance with the class of practice they felt most congenial to their tastes or abilities. This would be a practical solution of the situation.

I am, Sir, &c.,

Chirurgicus Ambulans.

London, *Jan.* 14, 1884.

"THE MEDICAL TIMES."

[To the Editor of the Medical Times.]

Dear Sir,—You will, I hope, pardon me if I venture to take exception to one or two points in your article treating, on the 5th instant, of the new departure made by this Journal. After praising in well-deserved terms the admirable management of the *Medical Times and Gazette*, first by Sir Spencer Wells, and next by the late Dr. Druitt, you are kind enough to say that the "aims impressed upon the Journal by those able and successful editors have been consistently followed by their successors." But you do not name any of those successors, and the term used appears to me vague, and likely to give the idea that several or many gentlemen occupied the editorial chair between the resignation of Dr. Druitt and the end of last year. In fact, there were during that period only two editors: my friend the late Dr. F. C. Webb, who imme-

diately succeeded Dr. Druitt, and myself. Dr. Webb felt great pleasure in the management of the Journal, and edited it with success till the day of his death in 1873; and it would, it appears to me, have been a graceful act to have named him as one of the former editors, and an act that would have been grateful to his friends. As to myself, I know that I considered it a not light honour to be asked to edit such a journal as the *Medical Times and Gazette*, and it was only after much hesitation, and with great diffidence, that I decided to accept the office. For all the generous help and consideration that I received from the profession throughout the term of my editorship, I was, and am, deeply grateful; and owing to that help, and the ability of my co-workers, I was, I venture to hope, enabled to be of some little service to my professional brethren, and to the well-being and advancement of the science and art of medicine. Therefore is it, Sir, that I confess that it would be pleasant to me to see the fact that I was editor of the *Medical Times and Gazette* for close upon ten years, put on record before the history of that journal is quite overshadowed by the renewed life and vigour of the *Medical Times*.

I am, dear Sir, yours very faithfully,

WM. CHOLMELEY.

NEW INVENTIONS & IMPROVEMENTS.

CAFÉ VIERGE.

THIS is a very concentrated essence of pure coffee, prepared in the laboratory of Messrs. Allen & Hanburys. Its main purpose, of course, is dietetic, and from it can be prepared a cup of coffee which in flavour is almost equal to that made from freshly-roasted berries; but it would no doubt also prove very useful as a therapeutical preparation, in those rare emergencies in which strong coffee is indicated.

MEDICAL NEWS.

PORTRAITS OF DR. JENNER.—An evening paper informs us that the medical faculty have been endeavouring to discover original portraits of Dr. E. Jenner. Two by Northcote, R.A., have come to light. One is in the possession of the Plymouth Medical Society; the other is in the keeping of the Devonport Medical Association.

DEATH OF DR. GARRINGTON, OF PORTSMOUTH.—Dr. Garrington, who died at Portsmouth on the 7th inst., aged 79, was the senior magistrate on the Portsmouth bench, an ex-mayor, and for many years the borough coroner.

FIRE AT A LUNATIC ASYLUM.—A fire broke out in the laundry of the Cornwall Lunatic Asylum, at Bodmin, on Friday week, creating great alarm. Fortunately it was discovered in time, and, by the strenuous exertions of the officials and the members of the brigade, the flames were got under without any necessity having arisen to disturb the 800 inmates.

THE PARKES MUSEUM.—At the meeting of council of Parkes Museum of Hygiene on January 8th, Sir James Paget, Bart., F.R.S., was elected a life member, and Mr. H. A. Darbishire, F.R.I.B.A., an annual member.

THE LATE THOMAS RIVINGTON WHEELER, F.R.C.S.—Mr. Wheeler, whose death recently occurred suddenly at Ramsgate, had for some years past acted as secretary to the Court of Examiners of the Society of Apothecaries, and also as secretary to the Board of Examiners in Arts. He was well known in the ranks of the profession, amongst whom his attainments and amiability of character secured him the friendship and esteem of not a few, and his loss will be sincerely felt and recognised. Dr. Peregrine has been elected by the society to fill the vacancy thus occasioned.

THE CHOLERA IN EGYPT.—A telegram from Alexandria, dated the 15th, states that no cases of cholera have been officially notified in Egypt since December 26.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council, held on the 10th inst., the following member was elected to the Fellowship, viz., Mr. Arthur Colling Brownless, of Melbourne, Victoria, his diploma of membership bearing date March 26, 1841.

THE HOSPITALS ASSOCIATION.—The inaugural meeting of this Association will be held, by permission of the Lord Mayor, at the Mansion House, on Friday the 1st February, at 3 o'clock. His Lordship will preside. Further particulars will be shortly announced.

LIVERPOOL MEDICAL INSTITUTION.—At the Annual Meeting, held Thursday, January 10, 1884, the following list of Officers and Council, and Microscopical Committee, was adopted. Those marked * did not hold the same office last year. President, *Dr. Robert Gee; vice-presidents, Dr. W. Macfie Campbell, Mr. Rushton Parker, *Dr. J. Wallace, *Dr. J. H. Wilson; honorary treasurer, Dr. James Barr; honorary general secretary, Dr. F. Pollard; honorary secretary ordinary meetings, Mr. Frank T. Paul; honorary librarian, Dr. Burton; council, Dr. Alexander, Dr. Archer, Dr. Carter, Dr. T. Clarke, Dr. Glynn, *Dr. Grimes, *Dr. Imlach, Mr. McCheane, *Dr. R. F. Owen, *Mr. R. N. Pughe, *Mr. T. Shadford Walker, *Dr. Young; microscopical committee, Dr. Alexander, Dr. Braidwood, Dr. Briggs, Dr. Glynn, Dr. Grossmann, Dr. Hicks, Dr. McClelland, Mr. Newton, Mr. Rushton Parker, Mr. Frank T. Paul, Dr. Rich, Dr. Whitford, and Dr. W. Williams.

PRESENTATION.—A testimonial, in the form of a handsome operating case, was, on the 10th inst., presented to Dr. G. H. Darwin, of Manchester, by friends residing in St. George's Parish, in that city, "as a token of their esteem."

ENTERIC FEVER AT ABERDEEN.—A small epidemic of enteric fever has broken out in the better parts of Aberdeen, which is attributed to infection by milk. Sixteen cases have occurred, two of which have proved fatal.

WARWICK UNION.—Dr. Bradley has resigned his appointment as Poor Law Medical Officer in the Leamington District. The area of the district is 12,449 acres; the population, 27,975, and the salary of the post £200 per annum.

MILK ADULTERATION IN DUBLIN.—A discussion arose last week, at the North Dublin Union, on milk adulteration, when it was stated by Dr. Norwood that fines imposed are paid out of a subscribed fund by dairymen—the conclusion being that more effectual punishment is necessary. Mr. North's suggestion that a personal penalty should be substituted in gross cases will have the sanction of public opinion, and it is well to find a guardian prepared to propose the heroic remedy that appears to have become inevitable in the circumstances.

UNIVERSITY OF EDINBURGH.—The matriculation returns for the past year have now been made up, and again show a very satisfactory increase. The aggregate number of students matriculated during the year in the Faculty of Medicine was 1,781, of whom 682 were from Scotland, 620 from England, 33 from Ireland, 123 from India, 264 from the different British colonies, and 59 from foreign countries. These returns point out the very satisfactory increase of students coming from our colonies. During the year, 31 students took the degree of Doctor of Medicine (M.D.), and 189 the double degrees of Bachelor of Medicine and Master in Surgery (M.B. and C.M.), the proportion of students on the register proceeding to graduation being 1 in 8. A Lectureship on Diseases of the Eye has been instituted in the University, and Douglas Argyll Robertson, M.D., appointed lecturer. This course was given with very successful results during the summer session. During the past year the following additions to the endowments of the University have been made:—A capital sum of 1,500*l.* has been given by Frederick John Mouat, M.D., of the Local Government Board, London, and formerly Professor of Medical Jurisprudence in the University of Calcutta, for the foundation of a scholarship—to be styled "the Mouat Scholarship"—in the practice of physic in connection with the class of practice of physic in the University. The late Miss Dick, of Edinburgh, bequeathed the moiety of the residue of her pro-

perty, estimated at about 10,000*l.*, to trustees, under certain conditions, for the purpose of founding a Professorship either of Comparative Anatomy or Surgical Anatomy (whichever the trustees may consider most desirable in the interests of Medical Science) in the University of Edinburgh. The several departments in the University New Buildings are now occupied and in full operation. They comprise all the classes in the Medical curriculum, with the exception of those of Botany and of Natural History—the former remaining attached to the Royal Botanic Gardens, while the latter (owing to the proximity of the Natural History Museum) is accommodated in the Old University.

Society for Relief of the Widows and Orphans of Medical Men.—A Quarterly Court of the Directors of the Society was held on Wednesday, January 9th, at 5 p.m., in the rooms of the Roy. Med. Chirg. Society, 53, Berners Street, Mr. Charles Hawkins, J.P., in the chair. The resignation of two members were accepted; the deaths of two reported, and two new members were elected. The Treasurer informed the meeting that a Christmas present had been made to the widows and orphans in December last, amounting to 307*l.* Grants to the extent of 1,241*l.* were made to 58 widows, 5 orphans, and 3 orphans on the Copeland Fund. The expenses of the quarter were 64*l.* One fresh application was received from a widow, and a grant made.

Faculty of Physicians and Surgeons, Glasgow.—At a recent meeting of the members of the Faculty of Physicians and Surgeons, Glasgow, it was resolved that after the Sessional year the Faculty would cease to grant single qualifications, unless the candidate already had a medical qualification, but that it will continue to grant the double qualification as heretofore, with the College of Physicians, Edinburgh. Negociations are now going on with the College of Surgeons, Edinburgh, so as to include it also in the granting of the double qualification—"Tria juncta in uno."

Finsbury Dispensary.—The biennial festival of this old established dispensary was celebrated on Monday evening, at the Holborn Restaurant, under the presidency of the Right Hon. The Lord Mayor, M.P., supported by the Sheriffs of London and Middlesex, Mr. Barclay Field, treasurer, Mr. Richard Moreland, honorary secretary, Dr. Domett Stone, one of the physicians to the institute, and upwards of 100 other gentlemen. From the 104th annual report, which was circulated during the evening, it appears that the number of new patients in the year 1883 amounted to 13,719, which exceeds by 944 that of the previous year, and is the largest number yet relieved in any one year by this dispensary. The number of attendances was 32,619; the number of visits by the Medical Officers to patients at their own homes 3,570, making a total of no less than 36,382 consultations in the year. During the evening subscriptions to the amount of £510 were announced.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th inst., and when eligible will be admitted to the pass examination, viz.:—

M. Eleyatamby, of the Ceylon School.
E. L. Fox, of the University of Cambridge.
R. B. Robson, T. Morton, and H. Renny, of the Newcastle School of Medicine,
A. L. Williams, of the Liverpool School of Medicine.
C. Mortlock, of St. George's Hospital.
W. E. Morgan, of St. Bartholomew's Hospital.
J. Good, of Charing Cross Hospital.
J. B. Webb and H. A. Spencer, of the Bristol School of Medicine.
J. W. Barrett, of the Melbourne University.
W. S. Cox and A. O. Balshaw, of the Manchester School of Medicine.
F. W. Gordon, of the Dublin University.
A. R. Macmillan, of the Edinburgh University.

Eight candidates were referred to their studies for three months.

The following gentlemen passed on the 9th instant, viz.:—

P. P. Baly, of the Birmingham School of Medicine.
H. Anderson, of the Belfast School of Medicine.
A. W. Riddell, of the Bristol School of Medicine.
S. L. Davis, of the Bristol School of Medicine.
F. C. Servaes, of the University of Cambridge.
E. N. Nason, of the University of Cambridge.
C. Nicholson, of the Leeds School of Medicine.
F. Jubb, of the Leeds School of Medicine.
H. Massey, of the Dublin School of Medicine.
F. S. P. Lely, of the Liverpool School of Medicine.
C. E. Dodd, of the Liverpool School of Medicine.
W. B. Caley, of the Liverpool School of Medicine.
S. Hawarden, of the Manchester School of Medicine.
H. C. Coe, of the University of Harvard.
A. King, of Charing Cross Hospital.
C. J. Deyns, of Middlesex Hospital.
W. B. Colquhoun, of Guy's Hospital.

Six candidates were referred for three months, and one for six months.

The following gentlemen passed on the 10th instant, viz.:—

P. E. Barber and W. H. Beaumont, students of the University of Cambridge.
Percy Rose, W. P. Le Feuvre and F. W. Turtle, of Guy's Hospital.
E. S. Smith, of St. Mary's Hospital.
C. T. Green, of St. George's Hospital.
E. A. Lubbock, of the London Hospital.
John Cotton, of the Liverpool School of Medicine.
G. H. Spencer and Henry Gell, of the Manchester School of Medicine.
Archibald Thomas, of Middlesex Hospital.
V. G. Thorpe, F. C. Goodwin and H. Yeo, of King's College Hospital.
A. E. Vidler and Alfred Wright, of St. Bartholomew's Hospital.
A. L. Cartel, of University College Hospital.

Six candidates were referred to their studies for three months.

The following gentlemen passed on the 11th instant, viz.:—

H. E. Harris, of the University of Cambridge.
P. T. Adams, S. Buenode Mesquita, and A. A. Smith, of Guy's Hospital.
E. H. Ellison, A. A. McAnally, H. B. Cavell, and J. A. Bratton, of King's College Hospital.
J. H. Yolland and G. T. Bates, of University College Hospital.
J. Muriel and E. A. Griffith, of St. Bartholomew's Hospital.
George Michelmore, of St. George's Hospital.

Nine candidates were referred to their studies for three months, and two for six months.

The following gentlemen passed on the 14th instant, viz.:—

S. Beauchamp, G. H. Whitaker, and S. W. E. Sharman, of St. Bartholomew's Hospital.
T. W. P. Lawrence, H. G. Henderson, and R. R. Pearse, of University College Hospital.
F. J. P. Smith, G. W. Orde, and H. M. Bullock, of St. Thomas' Hospital.
G. E. Fitzgerald, of St. George's Hospital.
E. M. Hearnden and W. S. Brown, of Guy's Hospital.
W. A. Evelyn, of the University of Cambridge.
W. V. Pegge, of King's College Hospital.
A. E. Clarke, of the Leeds School.

Seven candidates were referred for three months, and two for six months.

The following gentlemen passed on the 15th instant, viz.:—

W. W. Grosvenor, F. A. Harger, T. G. Davey and F.W. Nielsen, of St. Bartholomew's Hospital.
T. H. Williams and P. J. Pugh, of University College Hospital.
G. T. Rawnsley and F. W. Farr, of Guy's Hospital.
E. E. Phillips, of St. Thomas' Hospital.
J. J. Oakman, of the Westminster Hospital.
R. A. Freeman, of the Middlesex Hospital.
W. A. R. Braybrooke, of St. George's Hospital.

Eight candidates were referred for three months, and four for six months.

The following gentlemen passed on the 16th instant, viz.:—

N. G. N. Bray, of Guy's Hospital.
A. T. Wooldridge, of St. Bartholomew's Hospital.
W. F. Fisher, of St. Bartholomew's Hospital.
F. L. P. Sawell, of St. Bartholomew's Hospital.
R. G. Cookson, of St. Bartholomew's Hospital.
H. Gurney, of St. Thomas' Hospital.
J. E. Ker, of St. Thomas' Hospital.
F. G. C. Martin, of the London Hospital.
J. P. Nassau, of University College Hospital.
E. R. M. C. R. Cousins, of University College Hospital.
A. H. P. Shaw, of University College Hospital.
F. F. L. Penno, of University College Hospital.
J. M. Jones, of University College Hospital.
W. T. Wallington, of Charing Cross Hospital.
E. A. Burnside, of King's College Hospital.
E. G. Lumsdon, of King's College Hospital.

Six candidates having failed to acquit themselves to the satisfaction of the Board, were referred to their Anatomical and Physiological studies for three months, and two candidates for six months.

APOTHECARIES' HALL, LONDON. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 10 :—

Chas. Henry Evers, Choppington-street, Newcastle-on-Tyne.
Geo. Douglas Hunter, Caroline-street, Eaton-square, S.W.
Henry Joseph Walklate Martin, Twyford House, St. Albans.
John Spring, Bell-street, Darlaston.
Richd. Thos. Williamson, Cuerden-terrace, Burnley.

The following gentleman also on the same day passed the Primary Professional Examination :—

Jno. Walter Hopkins, Leeds School of Medicine.

At the preliminary examination in Arts, held at the Hall, on the 10th, 11th, and 12th of January, 1884, 77 candidates presented themselves, of whom 47 were rejected, and the following 30 passed.

In the first division, none.

In the second division, in alphabetical order, viz. :—

William Ashby, Ernest S. T. Badger, *Jno. Elford Bailey, Wm. R. M. Berridge, John Beyts, S. R. Blake, *Ernest Burchell, Jno. T. Clapham, *T. F. Clemson, *Jno. Jas. Coulton, R. S. Freeland, R. H. French, P. A. Gore, *Fras. Percival Harris, G. S. Owen Howes, *Wm. Edward Jones, *Henry Layng, *J. R. McMahon, Chas. Meaden, W. K. Parbury, R. E. F. Pearse, H. Richardson, S. A. Rowley, D. C. S. Simmonds, Cecil Willard Smith, *Henry Smith, *E. R. Streeten, W. D. Wells, *E. T. Whitaker, Jno. Edward Williams.

Those to whose names * is prefixed also passed in Elementary Mechanics.

THE BOWER AND KEATES CASE.

THE following is the sixth list of subscriptions, being those received up to the 12th instant. :—

W. Adams, F.R.C.S., £6 6*s.*; H. W. Acland, C.B., F.R.S., £5; G. B. Brodie, M.D., £3 3*s.*; J. Jones, F.R.C.S., £3 3*s.*

The following have sent two guineas each :—W. Bucknill, Esq.; W. O. Chalk, Esq.; A. Cooper, F.R.C.S.; F. B. Courtenay, Esq.; T. H. Forshall, Esq.; J. W. Gooch, Esq.; C. J. Hare, M.D.; T. S. Howell, Esq.; T. W. C. Jones, F.R.C.S.; G. Lawson, F.R.C.S.; C. H. F. Routh, M.D.; Buxton Shillitoe, F.R.C.S.; A. Winkfield, F.R.C.S.

The following have sent one guinea each :—J. Allen, M.D.; T. R. Armitage, M.D.; A. W. Barclay, Esq.; R. Barlow, Esq.; W. H. Bennett, F.R.C.S.; H. Briggs, M.D.; R. C. Brown, M.B.; J. G. Carruthers, Esq.; R. R. Cheyne, F.R.C.S.; J. Fenn Clark, Esq., W. M. Coates, F.R.C.S.; Alex. Collie, M.D.; C. E. Collins, Esq.; A. W. Crane, Esq.; R. S. Cross, Esq.; F. R. Cruise, Esq.; W. D. Clucas, Esq.; W. E. Dixon, F.R.C.S.; E. R. Evans, Esq.; D. Everett, F.R.C.S.; D. Ferrier, M.D., F.R.S.; W. Gandy, Esq.; R. Gilbertson, Esq.; W. Gill, Esq.; R. J. Godlee, F.R.C.S.; Stanley Haynes, M.D ; W. A. Hearnden, M.D.; T. Wood Hill, Esq.; J. S. Hosford, M.D.; T. Mark Hovell, F.R.C.S.; W. H. A. Jacobson, M.B.; W. Johnson, M.B.; Bernard Kendall, Esq.; G. Leake, Esq.; Surgeon-Major W. J. H. Lush, M.D.; J. A. McDonagh, F.R.C.S.; A. C. MacLaren, Esq.; T. May, Esq.; H. Monro, M.D.; Gawin Orr, M.D.; W. Pollard, F.R.C.S.; W. Rayner, Esq.; H. S. Renshaw, M.D.; J. Reynolds, M.D.; B. Rix, Esq.; F. G. Sadd, Esq.; E. Selous, M.D.; W. Johnson Smith, F.R.C.S.; E. M. Swanwick, Esq.; C. J. Symonds, F.R.C.S.; H. P. Truell, M.B.; F. Vacher, Esq.; C. Welch, Esq.; J. C. Whaley, Esq.

The following have sent one pound each :—J. Chiene, F.R.C.S.; T. P. P. Marsh, M.D.; G. Waylin, Esq.; W. S. Wyman, M.D.; F. L. Selous, Esq.

The following have sent ten shillings and sixpence each :—Boughton Addy, M.D.; R. Anderson, M.D.; C. T. Aveling, M.D.; — Back, M.D.; M. S. Bennett, Esq.; J. G. Bredin, Esq.; T. M. Butler, Esq.; Isaac Byerley, F.R.C.S.; J. Corrie, Esq.; A. Cunningham, M.B.; T. Chapman, Esq.; E. Diver, M.D.; Woodfield Eagles, Esq.; J. E. Eddison, M.D.; J. Grove, M.D.; D. Holmes, M.B.; C. Hooper, Esq.; A. P. Leak, M.D.; Hector Leak, Esq.; C. F. Lewis, Esq.; C. H. Lister, M.D.; Messrs. Morgan and Williams; J. Morton, M.B.; A. A. Napper, Esq.; Albert Napper, Esq.; H. G. Rawdon, M.D.; J. H. Russell, Esq.; F. R. Russell, M.D.; G. E. Scholefield, M.B.; C. J. Sells, Esq.; J. R. Stedman, M.D.; T. C. Temple, Esq.; T. W. Thompson, Esq.; J. B. White, Esq.; A. Whitehead, Esq.; R. Wilson Wilcox, Esq.; J. C. Wilkinson, Esq.

The following have sent ten shillings each :—W. Alexander, M.D.; G. W. Armstrong, Esq.; E. G. Barnes, M.D.; T. W. Coffin, F.R.C.S.; F. Corbett, Esq.; S. D. Darbishire, M.D.; Theodore Davis, Esq.; T. Elliott, M.D.; J. R. Ferguson, M.B.; Adam Fletcher, M.D.; E. Furley, M.D.; G. P. Goldsmith, M.D.; W. Griggs, Esq.; George Harding, Esq.; H. Nelson Hardy, F.R.C.S.; A. Hensman, F.R.C.S.; A. Hepburn, Esq.; T. Joyce, M.D.; R. H. Kinsey, Esq.; C. Lucas, Esq.; H. A. Lawton, Esq.; T. Limbery, Esq.; R. Macartney, Esq.; P. Macpherson, M.D.; W. K. Manfold, Esq.; G. P. May, M.D.; W. W. Miller, M.D.; Ivor Murray, M.D.; H. Muscroft, M.D.; F. Needham, M.D.; F. Payton, Esq.; C. E. Perry, M.D.; F. G. Stevens, Esq.; T. S. Tellet, Esq.; E. Thompson, M.B.; F. Turtle, M.D.; Thos. Watts, Esq.; A. D. Webster, M.D.; G. F. West; G. J. Willan, Esq.; J. Young.

The following have sent five shillings each :—J. A. Aldridge, M.D.; T. G. Allen, Esq.; Saml. Arnott, Esq.; J. H. Bailes, Esq.; R. Bangay, M.D.; W. H. Blake, M.B.; J. Bridger, Esq.; F. Canton, Esq.; R. T. Poole Collyns, Esq.; R. Congreve, Esq.; W. G. Copestake, Esq.; R. Cox, M.D.; R. H. N. Day, Esq.; R. Debenham, Esq.; T. F. Edgeworth, Esq.; J. P. Edwards, Esq.; G. M. Evans, Esq.; W. Ewart, M.D.; W. Fairbanks, M.D.; A. P. Fiddian, M.B.; J. P. Gaunt, Esq.; S. Lawrence Gill, Esq.; C. B. Granger, Esq.; W. A. Greet, Esq.; A. Hamilton, F.R.C.S.; J. Hammersley, Esq.; T. Harper, Esq.; J. Hartley, Esq.; R. Harvey Hilliard, M.D.; A. A. Hogarth, M.B.; H. F. Holland, M.D.; W. Husband, M.D.; H. Talbot Higginson, M.D.; Chas. Irving, Esq.; Edwin Jacques, M.D.; R. Kirkland, M.B.; D. H. Kyle, M.B.; A. Langley, Esq.; H. Maturin, Esq.; Lysander Maybury, M.D.; R. Moir, M.D.; J. B. Neal, Esq.; W. J. Nelson, Esq.; Hill Norris, M.D.; R. Norris, M.D.; A. W. Orwin, M.D.; F. Craddock Palmer, Esq.; T. Pearse, M.D.; Jas. Ray, Esq.; J. Rodley, Esq.; H. P. Rowlands, Esq.; M. T. Sadler, M.D.; T. A. Sellar, M.B.; H. Simpson, M.D.; F. M. Godde Smith, Esq.; J. Snowdon Smith, Esq.; G. Spotton, Esq.; N. D. Talpade, M.D.; H. C. Taylor, Esq.; E. B. Tench, Esq.; G. L. Thorne, J. Tunley, Esq.; W. E. W. Vaughan, Esq.; E. H. Vinen, M.D.; H. Waldo, M.D.; W. Whalley, M.D.; A. Woodforde, Esq.; Anonymous.

The following have sent two-and-sixpence each :—G. T. Broatch, Esq.; T. Clarendon, M.B.; Geo. Crawford, M.D.; J. C. Clarke, M.B.; C. E. Hardyman, Esq.; E. Hargreaves, M.B.; A. Hooley, Esq.; J. King Kerr, M.D.; John Morgan, Esq.; W. F. Parmer, M.B.; C. B. Plowright, Esq.; W. J. W. Proffitt, Esq.; J. Reid, M.B.; G. N. Stathers, Esq.; E. Williams, Esq.; G. Halpin, M.D.

Other smaller sums have been received from :—T. A. Alexander, M.B., 2*s.*; J. H. Comber, M.D.; 1*s.*; A Very Poor Sympathiser, 1*s.*

Erratum.—"H. T. Philpot," acknowledged last week, should be "H. J. Philpot."

The completion of the memorial will be greatly facilitated if all those who still desire to sign it will send their signatures without further delay.

F. A. MAHOMED,
R. W. BURNET, } *Hon. Secs.*

APPOINTMENTS.

BATEMAN, A.G., M.B., M. Ch., L.S.A.—Honorary Medical Officer to the Holloway and North Islington Dispensary, *vice* J. Grey Glover, M.D., resigned.

BRICKWELL, JOHN, M.R.C.S. Eng., L.S.A.—To the Stoke District of the Eton Union.

BUTLER, G. E., M.R.C.S.—Senior House-Physician and Chloroformist to the Westminster Hospital.

CARR, J. ALLEN, L.R.C.S.E., L.R.C.P.E.—Medical Officer and Public Vaccinator for the Kippax District of the Tadcaster Union, *vice* J. W. Oglesby, deceased.

ELGOOD, CHARLES R., M.B. Lond.—House-Surgeon to the North-Eastern Hospital for Children, Hackney Road, E.

ELLIOTT, W. T., L.D.S. Edin. and Dublin, F.C.S.—House-Surgeon to the Dental Hospital, Birmingham.

GODDARD, C. E., L.R.C.P. Lond., M.R.C.S.—House-Physician and Registrar to the North London Hospital for Consumption, Mount Vernon, Hampstead.

HANDFIELD-JONES, Dr. M., has been elected Assistant-Physician to the Chelsea Hospital for Women.

HEWKLEY, FRANK, M.R.C.S., L.S.A.—House-Surgeon to the London Hospital.

HOLYOAKE, RALPH, M.R.C.S.—House-Surgeon to the London Hospital.

HUDSON, ERNEST, M.R.C.S.—Junior House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields, *vice* J. B. Lawford, M.D., appointed Senior House-Surgeon.

MERCES, J., L.R.C.P.—Resident Medical Officer to the Bath General Hospital, *vice* A. R. Busby, M.R.C.S., resigned.

MILLS, W., L.R.C.S.—House-Surgeon to the Chorlton-upon-Medlock Dispensary.

MONEY, ANGEL, M.D., M.R.C.P.—Assistant-Physician to the Victoria Park Hospital for Diseases of the Chest.

MUMBY, L.P., M.R.C.S., L.S.A.—Junior House-Physician to the Westminster Hospital.

NANCE, H. C., M.R.C.S., L.R.C.P., L.S.A.—Junior Resident Medical Officer to the Hospital for Children, Pendlebury, Manchester.

PHILPOT, J. H., M.D.—Assistant Physician to the Victoria Hospital for Children, *vice* W. C. Grigg, M.D., resigned.

POLLOCK, W. R., M.R.C.S.—Resident House-Surgeon to the Addenbrooke Hospital, Cambridge, *vice* A. M. Shield, F.R.C.S., resigned.

PRICHARD, R., M.D.—House-Surgeon to the Maternity Hospital, Glasgow.

PRUEN, E. T., M.B.—House-Surgeon to the Cheltenham General Hospital.

PULLING, H. J., M.R.C.S. — House-Surgeon to the Westminster Hospital.

REYNOLDS, JAMES J., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.—To the Boxford District of the Gosford Union.

SHAW, L. E., M.B.—House-Surgeon to the Victoria Hospital for Children, *vice* J. A. Shaw, M.R.C.S., resigned.

SWAIN, J., M.R.C.S.—Resident Obstetric Assistant to the Westminster Hospital.

THOMAS, ALFRED, L.R.C.P., L.R.C.S. Edin.—As Assistant Medical Officer at the Workhouse, West Derby Union.

WILLIAMS, M., L.R.C.P., M.R.C.S.—Registrar and Pathologist to the North-Eastern Hospital for Children, *vice* Trevor, resigned.

DEATHS.

BEATTIE, ALEXANDER, M.D., late of H.E.I.C.S., and 45, Porchester-terrace, London, at Mentone, on January 6.

NEVILL, WILLIAM, M.B., of Dungannon, Ireland, at Killelagh Rectory, Maghera, co. Derry, on January 11, aged 79.

PARSEY, W. H., M.D., F.R.C.P., at Hatton, on January 10, aged 62.

SHEARMAN, PERCY EDWARD, L.R.C.P., at Davos Platz, Switzerland, on January 12, aged 26.

VACANCIES.

RADCLIFFE INFIRMARY, OXFORD.—Honorary Physician. Candidates must be legally qualified to practise as Physicians in England. Testimonials to be sent to the Secretary (from whom all further information may be obtained) on or before February 6.

SUSSEX COUNTY HOSPITAL, BRIGHTON.—Physician and Assistant-Physician. Candidates must be Fellows or Members of the Royal College of Physicians, of London, and Graduates in Medicine of one of the Universities of the United Kingdom, and be duly registered under the Medical Acts. Applications with Testimonials, to be sent to the Secretary, on or before February 6, by 12 o'clock noon. The election will take place on February 20.

WEST HERTS INFIRMARY, HEMEL HEMPSTEAD.—House Surgeon and Dispenser. Salary £100 per annum, with board, furnished rooms, &c., and attendance. Candidates must be qualified in Medicine and Surgery, duly registered, and unmarried. Applications, with testimonials and certificates of registration, to be sent to the Secretary, on or before February 6. The Election will take place on February 23.

NOTES, QUERIES, AND REPLIES.

PROVINCIAL HOSPITALS.

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—Will you kindly permit me to inquire through your columns, what is done in provincial towns having hospitals, where, either there is no resident physician, or none willing to undertake active work at the hospital? The number of towns so circumstanced must be increasing in these days, in which the facilities of communication tend to draw consultative practice to London. Under such circumstances, are general practitioners invited to undertake the medical charge, and under what titles? And, in such cases, are the branches of medicine and surgery still maintained apart? Or are they merged together, as I believe to be commonly the case in French hospitals? If any of your readers will oblige me with a statement of their experience, addressing their letters as below, I shall be greatly obliged, as the subject is of practical importance to us here,

Yours faithfully,

St. Mary's Rectory, Colchester, JOHN W. IRVINE.
January 12.

AN ENQUIRY.

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—Could you kindly give me information on the following subject:—Is a district Medical Officer compelled by law to obey a magistrate's order to examine and report on a supposed lunatic living in another Medical Officer's district? Your advice will oblige.

Yours faithfully,

13th January, 1884. POOR-LAW MEDICAL OFFICER.

COMMUNICATIONS RECEIVED—

Dr. J. F. LITTLE, Ben Rhydding; Mr. T. M. STONE, Wimbledon; Dr. A. T. THOMSON, Glasgow; Mr. A. ALLEN, Bath; THE ASSISTANT SECRETARY, "BRITISH MEDICAL JOURNAL," London; Dr. W. BLYTH, Lodon; THE SECRETARY, ROYAL INSTITUTION, London; THE HON. SECRETARY, BRITISH MEDICAL BENEVOLENT FUND, London; THE SECRETARY, ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; Dr. R. W. BURNET, London; Mr. J. BELLAMY, Local Government Board, London; Dr. J. MATTHEWS DUNCAN, F.R.S., London; Mr. WATSON CHEYNE, London; THE SECRETARY, PARKES MUSEUM, London; Dr. J. F. GOODHART, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. H. F. SEARLE, London; The Rev. T. WARBURTON, London; The Rev. J. W. IRVINE, Colchester; Dr. WARNER, London; Dr. WOODMAN, Exeter; Mr. J. DIXON, Dorking; Mr. F. T. PAUL, Liverpool; Dr. SHELLY, Hertford; Dr. DUDFIELD, London; Mr. E. A. BRASH, Exeter; THE SANITARY COMMISSIONER FOR THE PUNJAUB, Lahore; MR. D. MACALISTER, M.B., Cambridge; THE REGISTRAR-GENERAL FOR QUEENSLAND, Brisbane; MR. W. H. HOCHEIMER, Brighton; DR. EDWIN PAYNE, London; DR. G. H. DARWIN, Manchester; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE SECRETARY, SOCIETY FOR RELIEF OF THE WIDOWS AND ORPHANS OF MEDICAL MEN, London; DR. R. A. GIBBONS, London; THE DIRECTOR, ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; DR. RUSSELL, Birmingham; MR. RICHARD DAVY, London; THE SECRETARY, MEDICAL SOCIETY OF LONDON; DR. R. SAUNDBY, Birmingham; DR. I. OWEN, London; MR. G. S. JOHNSON, London; MR. H. MORRIS, London; Dr. J. W. MOORE, Dublin.

BOOKS RECEIVED—

Liberty or Law, by Wordsworth Donisthorpe—Kudolph-Stiftung in Wien, vom Jahre 1882—Man, by B. Copson Garratt.

PERIODICALS AND NEWSPAPERS RECEIVED—

Revue de Chirurgie—Revue de Médecine—Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hopitaux — Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine — Pharmaceutical Journal — Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature —Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Edinburgh Clinical and Pathological Journal—Students' Journal and Hospital Gazette—New York Medical Record — Edinburgh Medical Journal — El Ensayo Medico—Revue Sanitaire—The Lark—Journal of The Vigilance Association — Australian Medical Journal — Revue des Sciences Médicales — The Western Medical Reporter — The Planet—La Psichiatria.

APPOINTMENTS FOR THE WEEK.

21. *Monday.*

MEDICAL SOCIETY OF LONDON, 8.30 p.m. Mr. R. Brudenell Carter will deliver his Second Lettsomian Lecture, subject—"Modern Operations for Cataract."

22. *Tuesday.*

ANTHROPOLOGICAL INSTITUTE, 4, St. Martin's Place, Trafalgar Square, W.C. 8 p.m. Annual General Meeting. Professor Flower, LL.D., F.R.S., President, in the Chair.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Dr. Charles L. Roy will demonstrate—"The Arterial Blood Pressure, and the Mechanisms which regulate it in Health and Disease." Mr. Walter Whitehead, of Manchester, will also show a case of "Spina Bifida, cured by Operation." Mr. Victor Horsley will demonstrate "The Pressure of the Nerves of the Perineurium."

ROYAL INSTITUTION, 3 p.m. Mr. R. S. Poole—"Coins and Medals."

23. *Wednesday.*

HUNTERIAN SOCIETY, 8 p.m. Mr. T. Mark Hovell—"Laryngeal Web following Syphilitic Ulceration"; The President (W. Rivington, Esq.), "Two Cases of Large Calculi treated by Lithotomy"; Mr. Poland, "Case of Ruptured Intestine."

24. *Thursday.*

ROYAL INSTITUTION, 3 p.m. Professor Pauer—"Music for the Pianoforte, &c."

25. *Friday.*

CLINICAL SOCIETY OF LONDON.—The following Papers will be read:—1. Mr. Rivington, "An Unusual Form of Dislocation of the Hip"; 2. Mr. Rivington, "Wound of External Carotid by a Stab in the Parotid Region, Recurrent Hæmorrhage, Temporary Ligature of the Carotid Trunk, combined with Ligature of the External Carotid at the Seat of Injury"; 3. Dr. Donald Hood, "Angina Pectoris immediately followed by Pericarditis"; 4. Dr. de Havilland Hall, "Empyema followed by Abscess of the Brain."

ROYAL INSTITUTION, 8 p.m. Mr. H. H. Johnston—"Kilima-Njâro, the Snow-clad Mountain of Equatorial Africa."

26. *Saturday.*

ROYAL INSTITUTION, 3 p.m. Professor Morley—"Life and Literature under Charles I."

TERMS OF SUBSCRIPTION FROM JANUARY 5, 1884.

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„	6	„	0	12	0	„	0	11	6
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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES

AND GAZETTE.

No. 1752. LONDON, SATURDAY, JANUARY 26, 1884.

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MODERN OPERATIONS FOR CATARACT.

The Lettsomian Lectures Delivered at the Medical Society of London.

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Lecture II.

The division of my general subject to which I propose to direct attention this evening is that of the so-called "maturity" or "immaturity" of cataracts; and the progress which has been made in the surgical treatment of those which must be included under the latter denomination.

The word "maturity" as applied to cataract, must be understood to mean that the degeneration of the lens tissue has extended to the most superficial layers, those immediately adjacent to the investing capsule; and, in like manner, the word "immaturity" conveys that these superficial layers are not yet involved in the degenerative process, and that they retain some of their original characters, notably their transparency, their viscidity, and their adhesion to the capsule, either unimpaired or with only slight impairment.

When cataract is sufficiently advanced for any question about maturity to arise, the lens presents itself under one of two aspects. In the first of these it is blueish-white in colour, the whiteness not being uniform, but broken by lines, and the whole surface having an appearance between that of spermaceti, and that of an inferior opal, one which does not yield coloured reflections. In the second aspect, which is of comparatively rare occurrence, the surface is of uniform tint, and resembles that of bee's-wax, or brownish-yellow horn. In very exceptional cases of the latter class the colour is still deeper, ranging from dark brown to something which by a figure of speech may not unfairly be described as "black."

When any of the above mentioned appearances are met with, it becomes important to ascertain whether the opaque surface is in actual contact with the capsule of the lens, or is separated from it by a layer of still transparent tissue; and this question admits of being determined in a simple manner. With a moderately dilated pupil, we direct a pencil of light upon the eye, causing it to fall obliquely from the temporal side. If the opaque portion of the lens be in contact with the iris, except for the intervention of the anterior capsule, the margin of the pupil will cast no shadow upon the opacity. If, on the other hand, the iris be separated from the opaque portion by a layer of transparent tissue, the margin of the pupil will cast a crescentic shadow, the breadth of which will be proportionate to the extent of the separation.

Another test is afforded, especially in the white varieties of cataract, by the fact that the margin of the pupil is encircled, in all eyes, by a fine black line, which is generally lost to sight against the blackness of the aperture. When the aperture is no longer black, the fine black line becomes conspicuous, and especially so in persons with light irides and with any of the lighter coloured varieties of lenticular opacity. In such it is

not difficult to see, by the exercise of ordinary care, whether the black line is in close apposition with the opacity, or is separated from it by an appreciable interval.

When the operation of "flap-extraction" was the only one practised, the advantages of waiting for the complete maturity of cataracts were impressed upon surgeons by the unfavourable results of earlier interference; although it may be doubted whether the reasons of these unfavourable results were quite understood until after the custom of an early examination of the eyes operated upon was fully established. The reasons were, that in mature cataract the superficial layers of the lens were rendered visible by their opacity, and that they left the eye easily on account of the loss of their natural viscidity and of their natural adhesion to the capsule. Hence when the pupil appeared clear and black at the close of an operation, it was clear in reality; and, until this condition was attained, the residual cortical matters might be extruded by slight friction and pressure, so gentle as not to involve any great risk of rupture of the hyaloid membrane and consequent escape of the vitreous body. On the other hand, when a lens was extracted in an "immature" condition, the superficial transparent portion not only clung to the interior of the capsule, and could not be removed without much difficulty, but its presence in the eye was concealed by the very fact of its transparency, and might even remain unsuspected by the surgeon. In such cases, although the pupil would seem clear and black at the close of the operation, it would not be clear in reality, and, if the eye had been examined twenty-four hours later, when the residual lens matter had been acted upon by the aqueous humour, the pupil would have been found occupied by a quantity of disintegrated cortical tissue, swollen and rendered opaque by maceration. This material was apt to undergo proliferation and increase; and, at the same time, to excite acute iritis, which, when it occurred immediately after the large external wound of flap-extraction, was generally, or perhaps always, destructive to the eye. In other words, the only successful cases of the extraction of immature cataract by the flap-operation were those in which iritis did not occur, or in which it occurred in a degree sufficiently slight to be recovered from. The total thus constituted was not considerable, and the advisability of deferring operation until a cataract was fully "ripe" became an accepted principle of ophthalmic surgery. It was only by obedience to this principle that even the moderate measure of success, to which I referred in my first lecture, could with any certainty be commanded by the surgeon.

While such were the advantages of waiting for the maturity of cataract, the disadvantages of doing so, or rather the disadvantages to the patient of being compelled to do so, were of the most striking and obvious kind. The delay was always extremely irksome, and was often of far more serious consequence. In the case of comparatively poor people, cataracts often became sufficiently far advanced to interfere with the usefulness of vision, and to necessitate the abandonment of work, long before they were fit for removal. In other words, their presence often struck at the root of the means of living of an elderly person, who, but for them, might have continued to follow an occupation which afforded a comfortable maintenance. Deprived of this, brought into reduced circumstances, and left a prey to the most cruel anxiety, it could be no matter of surprise if the general health sometimes became so much impaired that its impairment would militate against the ultimate success of any surgical procedure; while, at the same time, the boon of restored sight, if such restoration were ultimately effected, was rendered of comparatively little value. An industrial connection had been broken, the vacancy occasioned by compulsory withdrawal from occupation had been filled up, and the restored sight did but enable the sufferer to see his or her pathway to the grave. Among people in better circumstances, also, the long tedium of waiting during the period of failing vision was often exceedingly depressing: and, notwithstanding the command of every comfort, it often interfered with sleep and with nutrition, and perceptibly lowered the powers of life. There would be, of course, the widest differences in these respects, differences depending upon temperament, or upon the intellectual or moral character of the individual; but there are few persons so endowed with fortitude and with hopefulness that slowly increasing blindness will leave their health or their spirits unaltered, or their powers of vital resistance unimpaired. In every class, therefore, it becomes an object of legitimate endeavour to abbreviate the period of waiting; and to restore the sight as soon as any operation can be undertaken with a proper degree of safety; while, in a certain proportion of cases, it even becomes justifiable to incur some amount of additional risk, at all events with one eye, in the hope of obtaining a speedy good result. For example, I was consulted, a few years ago, by a lady who held a superintending position in a large mercantile house—a position which required the exercise of much visual discrimination, and in which she was liberally paid. Her lenses became slightly turbid, just in a sufficient degree to interfere with her efficiency; but the turbidity was of such a character that, in all probability, ten years might have elapsed before the cataracts could be called mature. Her employers valued her services very highly, and were willing to wait any definite or reasonable time; but they could not have waited for the maturation of the cataracts, and hence the question arose whether anything could be done for her without delay. I thought it justifiable, by methods which I shall presently describe, to incur the risk of operating on one eye only; and, when this one had been completely restored, I operated upon the second in its turn, and with a like result. The patient has retained her position, and is able to fulfil all its requirements. I remember the time when no such operations could have been undertaken, by any methods then practised, with a reasonable expectation of success; and, as there is no such thing in life as an isolated case, the grievous loss of income and of occupation from which this lady was rescued must have befallen many who were similarly circumstanced in former years. It would be easy to cite many examples of a similar kind; but the position sought to be established is almost self-evident, and it would be little better than a waste of time to dwell upon it.

In order to determine the class of cases in which early operations may be undertaken, it is necessary to reflect on the various physical conditions which the lens may present As life advances, and old age steals on, the lens undergoes a process of hardening, which is most pronounced in the central portions, those most remote from the sources of nutrition; and at the same time it gradually assumes a yellowish or a brownish tint. These changes seem to be of universal occurrence, and the central hardening serves to establish a difference, which did not previously exist, between the "nucleus" and the "cortex;" but neither the hardening, nor the discolouration which attends it, would of themselves interfere seriously with vision. The nuclear hardening, however, seems in some cases to produce a physical separation between the central "nucleus" and the layer of "cortex" which immediately surrounds it; this separation not at first being general, but affecting certain portions only, and leading to the molecular disturbance of the cortical elements which are thus deprived of their natural continuity with the structures beneath. The elements which are so

affected become opaque, and tend to pass into a state of fatty degeneration, which ends in complete liquefaction. The ultimate fibrils of which the lens tissue is composed are themselves built up into wedge-shaped sectors, having their bases towards the equator and their apices towards the poles; while the fibres which form the apices of the sectors in front, and which there extend to the anterior pole of the lens, are those which, on the posterior aspect, barely overlap the equator. It follows from this distribution that, when a layer of lens tissue becomes opaque, the opacity does not advance uniformly, but in sectors; and the result is that, when cataractous change invades the eye of an aged person, we see the uniformity of the pupil broken by wedge-shaped striæ of opacity, having their bases concealed beneath the iris, while their apices approach the centre. The chief differences which occur in the development of senile cataract depend upon the proportions which the nucleus and the cortex bear to one another, or, in other words, upon the depth within the lens at which the detachment of the softer cortex from the harder nucleus commences. If this separation occur at only a small depth below the capsular surface, so that the cortical layer is thin, the nucleus will necessarily be of larger bulk than in the cases in which the separation occurs more deeply, leaving a comparatively thick layer of superficial material to undergo the peculiar cortical degeneration, and a nucleus of small magnitude inclosed within. The thinner the cortical layer, the more slowly, as a rule, do the changes which produce opacity make progress, and the finer and smaller are the striæ in which the opacity is first apparent. The converse also holds good; insomuch that, when the cortex is thick and abundant, the opaque lines of cataractous invasion are broader and more conspicuous, and they tend to increase, to coalesce, and to invade the whole surface of the lens, with much greater rapidity. In the determination of the sometimes difficult question, at what stage of the development of cataract the fact of its existence should be made known to the patient, it is always necessary to bear in mind that, when the striæ are fine and small, and therefore developed only in a thin and superficial layer of lens substance, their increase and maturation must not be expected to occur nearly so soon as when they are broad, and developed in a thicker layer. In cases of the former class, we often see the state of the lens, especially in very aged persons, remain with little manifest change for long periods; while, in those of the latter, the increase of the opacity is not only conspicuous to external observation, but forces itself upon the attention of the patient by the rapid deterioration of sight which it occasions.

Whether the hard nucleus be large or small, and consequently whether the enveloping layer of cortex be thick or thin, the opacity commences in that portion of the latter which is adjacent to the nucleus, and only afterwards invades the more superficial portion, or that which is adjacent to the lens capsule. The opacity increases by an increase in the length and breadth of the striæ, by a corresponding increase in their thickness, by which they approach the capsule, and by their coalescence as they meet. Until the opacity has reached the capsule, the lens displays something of its original striation; but, when or soon after this stage has been attained, the opaque cortex commences to break up and liquefy, to become the seat of calcareous or of fatty deposits, and to lose all trace of structure; while the nucleus, in such cases, no longing receiving the support which the previous coherence of the cortex afforded it, sinks to the bottom of the capsule, and may be seen, by adequate illumination, to change its place with changes in the position of the eye. In a degeneration which is gradual in its course no exact definitions of the successive stages can be framed; but there is a certain amount of convenience in describing a cataract as "incipient" before it interferes seriously with vision; as "progressive" when it has fairly invaded the area of the undilated pupil; as "mature" when the opacity has reached the capsule; and as "over-mature" when the natural striation of the cortex is beginning to disappear. The distinction between "hard" and "soft" cataracts, as applied to those of aged people, is less satisfactory as a matter of phraseology, because every cataract is both hard and soft, or is composed of a hard nucleus with a softer investment. The words express, however, although in a clumsy sort of way, whether the nucleus be large or small, and this is a matter of the greatest practical importance. A nucleus of large size adds much to the difficulties of the surgeon, and in a corresponding degree diminishes the prospects of a favourable issue.

The physical conditions, then, with which we have to deal in cataract, may be summarised somewhat as follows:—There must always be a hard nucleus, of variable size, and this must always be enveloped in a layer of cortical substance, the thickness of which varies inversely as the size of the nucleus. In "progressive" cataract the cortical substance may be opaque, or of an opacity interrupted by still transparent lines, in the laminæ immediately surrounding the nucleus; while it is transparent in the more superficial laminæ which separate the opaque portions from the capsule. When this is so, the still transparent laminæ retain a viscidity and coherence which those invaded by opacity have lost. At this stage it is not uncommon for the bulk of the lens to be increased, as if by the imbibition of fluid, so that the iris becomes pushed forward towards the cornea, and the depth of the anterior chamber is diminished. In more advanced, or "mature" cases, the opacity will have reached the capsule, and the whole of the cortex may be reduced to a pulpy consistence, still showing some trace of sectorial divisions and of fibrillated structure, but with little or no adhesion either to the capsule or to the nucleus. By this time, generally speaking, the lens will have returned to its normal dimensions. At a still later period, all traces of sectorial or fibrillated structure will disappear, and the capsule will contain a milky or turbid fluid, and will perhaps be mottled by dots of calcareous deposit, while the nucleus may be discovered floating loosely within. Where surgical interference has been withheld, and time and opportunity afforded, it has sometimes happened that a good deal of the fluid cortex has ultimately undergone absorption, and that some amount of vision has been restored. The nucleus, in such cases, has either retained its transparency, or its small size has removed it from the axis of vision.

Our predecessors were taught, by the experience of the days of flap extraction, that while it was advisable to wait until a cataract was mature, no advantage was to be derived from waiting too long. The condition of over-maturity, indeed, was decidedly unfavourable to success; partly, it may be, because it would usually be associated with other senile changes, partly because the completely degenerated cortex, when liberated from the capsule, seemed sometimes to act as a septic irritant, and partly because the calcareous particles which were often present were not easily removed from the eye, and were apt to become mechanical irritants if they were left behind. The condition which was regarded as most favourable was that which has been already described as maturity, in which the opacity was in contact with the anterior capsule, but in which it still displayed indications of a radiating striation. The same description of the most favourable condition must be given even now; but the practical question is whether the difference between this, and something which falls short of it, is sufficiently marked to be, in the majority of cases, worth waiting for? It may be laid down as a general principle that a cataract

should not be touched so long as the patient is able, even with some difficulty and by the aid of artificial dilatation of the pupil, to follow his or her usual occupation, or so long as the final issue can be awaited with cheerfulness and courage. When these conditions can no longer be fulfilled, when the habitual pursuits have to be abandoned, or when sleep, appetite, and digestion are disturbed, it becomes time to inquire whether something cannot be done to afford relief. In a considerable number of instances the answer may be in the affirmative.

As far as I am aware, the first step in this direction was taken by von Graefe, as one of the results of his method of modified linear extraction. In a large proportion of cases, senile cataract invades both eyes, but advances more rapidly in one of them than in the other; and von Graefe announced that, after having successfully extracted a mature cataract from one eye, he was accustomed to proceed boldly with the other, and to operate upon it at a much earlier period than would formerly have been thought desirable. His example was soon followed by other surgeons; and, both in respect of the choice of methods, and of the conditions most favourable to success, a large amount of experience was speedily obtained. The general result of this experience may, I think, be fairly expressed by saying that, when the physical or moral conditions already referred to are fulfilled in such a degree as to render operation desirable, the prospects of success will be at their highest in cases of small nucleus and abundant cortex, and will be greatly promoted by a return to the original method of Mooren, that is to say, by performing iridectomy as a preliminary operation, some weeks before the actual extraction of the lens is attempted. Still more, I venture to think, will depend upon the careful observance of many small details in the conduct of both operations, and also upon the care and knowledge with which, in the event of complications arising, both the local and the general treatment are conducted. As a preliminary to my endeavour to point out the means by which a favourable issue is frequently to be obtained, it will be convenient to sketch, in brief outline, that method of extracting the mature cataract, by a single operation, which, founded upon the lines laid down by von Graefe, has in some measure been modified by the work of other surgeons. It is not my intention to describe mere paper or diagrammatic variations, impossible to be carried out with certainty in practice, but only the general results which have been obtained, and the broad principles on which they are founded. In many instances, I think, the slight modification introduced by some single operator is to be regarded as personal to himself, perhaps as advantageous for the requirements of his particular hand, for his particular point of dexterity or of the absence of it, but not as having any special applicability to others. In manipulation, as in observation, there is distinctly what is called at an observatory "the personal equation" of each worker, by which his observations are to be reconciled with those, slightly different from them, made by others; and I am quite sure that much invention of instruments, and much modification of operative detail, is in like manner personal, the mere expression of the skill, and sometimes it may be of the awkwardness, of those with whom such variations originate. It is from this point of view that I approach my subject, and it is on this ground that I shall avoid dwelling upon many points which some have thought important, but which seem to me to be trivial.

When modified linear extraction was first introduced, it was the custom of most surgeons to dilate the pupil prior to the operation, and to do so by the repeated application of atropine. The idea was that the lens would thus be suffered to escape more easily, and much stress was laid upon such a manner of making the first incision that the aqueous humour should be suffered to trickle away slowly and gradually, by which course the pupillary dilatation was maintained. At this period, one of the most frequent and most troublesome complications was the entanglement and adhesion of the iris at one or both of the angles of the wound, an accident which, at the best, was followed by drawing up of the pupillary aperture to a point above the centre of the cornea, and which, at the worst, led on to destructive inflammation. Of late years, the separation of the active principle of the Calabar bean has given us, in the shape of eserine, a drug of very great value in many ocular maladies; and not the least of its uses depends on its power of producing contraction of the pupil, by which the iris may be drawn out of the angles of the operation wound, and pulled well down into the anterior chamber. When once a piece of iris is cut out, and the continuity of the sphincter of the pupil is destroyed, there is nothing left which opposes any resistance to the exit of the lens; and the benefit which was once supposed to be obtained from atropine was probably in a great degree imaginary. At any rate, the loss of this benefit is very cheaply purchased by the gain of preventing entanglement of the iris; and so, at the present day, the instillation of eserine, as a preliminary to iridectomy, has become almost universal. As in the case of atropine, the tendency of the pupil to return to a state of medium dilatation on the evacuation of the aqueous humour may to a great extent be checked by causing this evacuation to occur very slowly, but this is not a matter of much practical importance. Even if the pupil return to medium dilatation at the time of the operation, the effects of the eserine will speedily reassert themselves, and the iris will be kept well away from the wound angles before it can possibly become adherent to them. During the progressive stage of cataract, moreover, when the iridectomy is often required as a preliminary operation, and especially in cases of small nucleus, it is, as I have already stated, not uncommon for the lens as a whole to be enlarged by swelling of the cortex as a consequence of the imbibition of fluid during the degenerative process. When this occurs, the iris is pushed forward and the anterior chamber narrowed; and, in these circumstances, the pupillary contraction brings the iris between the lens and the entering knife, and is of great value in protecting the former from being accidentally wounded. On all grounds, therefore, whether in performing cataract extraction as a single operation, or in performing iridectomy as a preliminary step, the use of eserine to produce contraction of the pupil is important. My own practice is to apply to the conjunctiva, about half an hour before the operation, a single drop of a solution containing four grains of eserine sulphate to an ounce of distilled water. Some surgeons use a weaker solution, more frequently applied. Both methods, in all probability, answer equally well; and the only one about which I feel doubtful is the instillation of an eserine solution after the operation is completed. I should much fear that its entrance into the anterior chamber might be followed by injurious consequences.

The state of the pupil having been attended to, the next points for consideration are the size, position, and direction of the incision. I should lay down, as cardinal principles, that it should be proportionate to the diameter of the nucleus, so far as this can be ascertained; neither so small as to render the exit difficult, nor so large as to call upon the patient for unnecessary repair. It should be fully as large at its inner as at its outer aspect, not "tailed," so to speak, upon the outside of the eye, with a comparatively small opening into the

anterior chamber. It should lie in a plane sloping forwards from its extremities to its summit, because this position greatly facilitates the exit of the lens. The first step towards extrusion is to press upon the eyeball at or just below the lower margin of the cornea, and this pressure causes the lens to turn as if upon a horizontal axis, and to present with the upper part of the equator tilted somewhat forwards. If it meets with a wound of corresponding direction, it falls into it with readiness; while, if the wound be parallel to the plane of the iris, or still more if it at all trend backwards, the equator of the lens will come into contact with the inner surface of the cornea, in front of the wound, and will be arrested at a critical moment of the proceeding. The correct position is for the wound to lie in a plane which would pass through, or perhaps be a little in front of, the imaginary centre of the corneal curvature. A fourth, and not an unimportant condition, is that the wound of the deeper tunics should be covered by a conjunctival flap.

An incision which shall combine the foregoing characteristics can only be made by puncture and counter-puncture; and it follows that all lance knives must be discarded, save for the consideration that they have their uses in exceptional cases. If we take a common broad, flat, lance knife, and thrust it into the anterior chamber in front of the iris, the extremities of the incision, on account of the shape of the eyeball, will lie in a plane anterior to the centre, a condition the very opposite of that which is desirable. Weber endeavoured to overcome this difficulty by the use of a lance knife which was concave on its posterior surface, and Dr. Bell Taylor, by the use of a very narrow lance knife, with the edge of which he cut laterally after its introduction into the chamber, placing the whole length of his incision in the sclero-corneal junction. Neither method affords a conjunctival flap, and neither, according to my experience of them, affords a wound which opens readily for the exit of the lens. I would remark in passing, however, that Dr. Bell Taylor's incision appears to me to be the best which has yet been devised for the performance of iridectomy when there is a shallow anterior chamber.

The incision by puncture and counter-puncture requires a very narrow, thin, straight knife, with a fine point and one cutting edge. There are two patterns, that formerly employed by Linnhardt for flap extraction, which was adopted by Von Graefe and is commonly called by his name, and that of Dr. Bell Taylor. Von Graefe's knife has its back and edge parallel to each other, and its point is made by an equal sacrifice of both. As described by himself, the blade should be two millimetres broad, and three and a half centimetres long. Taylor's knife has a straight back, and is of the same length as Von Graefe's, but it may be likened to a very narrow Beer's, except that its point is wholly produced by the slope of the cutting edge. There is not much to choose between these forms, but, on the whole, I think that Taylor's encounters the less resistance of the two, and that its shape affords a better edge for the completion of the section.

The external points of puncture and counter-puncture were placed by Von Graefe on the same horizontal line, two millimetres below a tangent to the vertical meridian of the cornea, and on the tangents to the horizontal meridian. The margin of the true cornea, on its anterior surface, and especially at the upper part, is partially concealed by a covering of conjunctiva, through which the point of the blade would enter and emerge; while the centre of the incision would coincide with the apparent corneal margin, and thus be somewhat anterior to the true one. I do not think the position thus described can be widely departed from with advantage.

It is desirable, from an optical point of view, and also as a matter of appearance, that the iridectomy should be directly upwards, so as to be concealed by the upper lid; and it follows that the section should be bisected by the vertical meridian of the cornea. In order to secure this, whenever an anæsthetic is employed, the surgeon must be careful to note some landmark, some vein on the surface of the eye, or some spot on the iris, by which to be sure of the position of the vertical meridian. When under an anæsthetic, the eyes are often much rotated, and an incision which appears to be rightly placed when it is made, may be found, after recovery, to be very oblique in its direction.

The patient being placed upon his back on a couch, with his feet towards a sufficient window, the surgeon, standing behind his head, first carefully adjusts a speculum in such a manner as to keep the lids sufficiently apart with the minimum of pressure. He then takes the knife in his right hand for the right eye and in his left hand for the left, with the cutting edge upwards, and with the free hand seizes the conjunctiva, or if this be very fragile, the tendon of the inferior rectus, with fixation forceps, as near to the cornea as possible, and exactly on the vertical meridian. The fixation forceps should terminate in rather blunt extremities, with which, when needed, pressure may be made against the eyeball. The eye being thus secured, and slighted rotated downwards, the surgeon enters the knife at the spot indicated on the diagram,[1] endeavouring to turn its edge somewhat, but very slightly, forwards, and carries it downward through the anterior chamber, close in front of the iris, to a spot a little below and to the nasal side of the centre of the pupil. By this course, the perforation of the anterior chamber is a little lower than the external puncture, and the internal wound is made at least as large as the external one. The point of the knife is then raised until the back of the blade becomes horizontal, and is pushed on to the selected spot for the counter-puncture, great care being necessary not to be deceived as to the position of the blade by refraction through the aqueous humour or cornea. When the point of the knife emerges, the blade should have its back directed downwards and backwards, towards the centre of the corneal curvature, with the edge upwards and forwards in a corresponding degree; and, when the position is correct, the surgeon has only to complete the section. It is usually desirable to rotate the eye slightly outwards with the fixation forceps, so as to avoid wounding the eyelids, or the side of the nose; and then the section is completed, with Von Graefe's knife, by a gentle sawing movement, or with Taylor's, by simply pushing the blade straight onward. If, when the counter-puncture is made, the surgeon finds that the flat of the knife is parallel with the plane of the iris, so that the incision would not have the requisite forward direction, and that its centre would be placed too far back, it is necessary slightly to rotate the blade before enlarging the wound; but this proceeding is to be avoided whenever possible, because it tends to bruise the iris near the extremities of the incision, or in parts which will not be removed by the iridectomy. The section being completed very slowly, the aqueous humour leaks out and elevates the conjunctiva, so that this is not touched by the edge of the knife until after it has completely cut through the corneo-scleral junction. The edge is then directed backwards, and made to cut through the loosened conjunctiva two or three millimetres farther back, so as to leave a flap which may be turned down over the cornea by the blade.

The next step is the iridectomy, the object of which is merely to break the continuity of the sphincter and to avoid bruising or stretching of the fibres. The iris forceps should be introduced at the centre of the wound,

[1] Exhibited during the lecture.

*

carried to the edge of the pupil, and opened just widely enough to seize the narrowest possible fold. This should be gently drawn out of the eye, cut off with scissors up to its peripheral margin on each side of the forceps, and then cut, not torn, from its ciliary attachment. The remainder will generally at once return into the anterior chamber.

The division of the capsule of the lens is a proceeding which has much exercised the minds of inventors, and many ingenious instruments have been contrived for the purpose. I think there is nothing better than a simple steel point, set upon a flexible platinum stem, which can be bent with the fingers to suit the depth of the eyeball and the shape of the orbital margin. The operator should fix the eye at the original point whilst introducing the cystitome with its point directed laterally, but should make no pressure with the forceps, or should rather lift the eye towards him, until the point has passed beneath the lower margin of the pupil. It should then be turned down into contact with the lens capsule, and the least pressure with the fixation forceps will render the eye more tense, and will project the lens against the point. This should then be drawn gently to the equator, and then along the equator, in a direction parallel to the section, before it is withdrawn. As the capsule is divided, the lens may generally be seen to start forward, as if released, and a portion of the softened cortex will usually at once escape from the eye.

At this stage, it is often desirable to remove the speculum, and to raise the upper lid by a simple elevator, which, if the operator requires both his hands, may be committed to a careful assistant, who, at the same time, may draw the lower lid gently towards the lower orbital margin. The best elevator is, I think, that contrived by Dr. Noyes, of New York, which holds the lid securely, and takes up but little room. With or without fixation—which only becomes necessary when the eyeball is rolled upwards by the action of the superior rectus muscle, and which must then be managed with the greatest care, for fear of rupturing the hyaloid membrane and permitting the escape of vitreous—the operator makes gentle pressure immediately below the cornea, in a direction backwards, with the back of a tortoiseshell or caoutchouc spoon. Under this pressure, the nucleus should begin to turn, and its upper margin should present itself between the lips of the wound. The spoon pressure should then be continued in an upward direction, and the nucleus will gradually emerge, the pressure being relaxed as soon as its widest part has passed through the opening. The lids should then be suffered to close. In a few moments they should be reopened, the eye surface cleansed from cortex and coagula by gentle touches with a morsel of soft and carefully disinfected sponge, and the pupil and the wound examined. If the pupil be clear and black, and if the wound contain no iris, the operation is complete. If, on the other hand, the pupil be occupied by cortical substance, this must be extruded by gentle pressure, and by friction upon the cornea through the lower lid, or, if necessary, removed by the gentle introduction of a small spoon or scoop. Incarcerated iris may be replaced by a delicate whalebone spatula, or by gentle friction at the angles of the wound.

It has been assumed, in all the foregoing description, that the surgeon is dealing with a mature cataract, the whole of the cortex of which has lost its cohesion, and so slips easily out of the capsule, and has also lost its transparency, so that it is a conspicuous object within the eye, and cannot be overlooked. In dealing with immature cataract we have the reverse of these conditions, a greater or less thickness of the outer layers of the cortex being still adherent to the capsule, and being rendered practically invisible by transparency. More or less of this material will usually be left within the eye. After a short period of maceration in the aqueous humour, it swells up, becomes opaque and conspicuous, and sometimes appears to increase by cell proliferation. In some cases it is absorbed with little trouble, in others it excites iritis, it may be of a mild type, it may be of great severity; and the latter form, although, after modified linear extraction, it seldom leads either to suppuration of the globe or to sloughing of the cornea, yet sometimes extends to the choroid and to the ciliary region, produces wasting of the eye and loss of sight, and may even lead to sympathetic ophthalmia. The question of the propriety of extracting immature cataract will turn upon the probability of these risks being successfully avoided or overcome.

As a first step in this direction, it is essential to separate the iridectomy from the extraction by a time sufficiently long to allow of the perfectly sound healing of the cut edges of the iris. It hardly needs demonstration that the presence of swollen and possibly decomposing cortex within the eye will be much more likely to excite mischief, if it be in contact with a recently wounded iris, than with one which has completely recovered. As a rule, I think the interval between the two operations should not be less than six weeks.

The iridectomy itself should be performed with the smallest possible amount of disturbance to the eye. The incision, if there be a good anterior chamber, may be made with a very thin, rather narrow, and acute-angled lance knife, the aqueous humour should be suffered to drain away slowly, and a very small strip of iris should be drawn out and excised in the manner already described. If any portions remain in the angles of the wound, they must be carefully replaced by the spatula before the lids are closed. If the anterior chamber be rendered shallow by enlargement of the lens, the incision may be made in the manner already ascribed to Dr. Bell Taylor. For this purpose, the conjunctiva must be seized by fixation forceps close to the corneal margin, and immediately to the left of the left hand extremity of the intended wound. At this point, a very narrow bent lance-knife must be entered, and, when its point has been carried into the chamber as far as can be done without risk of wounding either lens or iris, the right hand edge must be made to cut its way around the margin of the chamber until a wound of sufficient length has been obtained, through which the iris may be drawn out and excised in the ordinary manner. Before the eye is closed, both the anterior chamber and the conjunctival sac should be freed from blood as completely as possible, and the bandage should be applied with moderate pressure. The patient should be kept in bed, under suitable regimen, cold wet compresses should be applied if there be any heat or pain, and every endeavour should be made to prevent or to subdue iritis. On the second or third day a drop of solution of atropine should be placed within the conjunctiva, and no risks should be run, and no use of the other eye permitted, until all blood has disappeared from the anterior chamber, all surface vascularity has passed away, and a free and moveable pupil is obtained. It is only when these conditions are fulfilled, that the case can be considered a hopeful one for farther treatment; and the iridectomy is not only valuable as facilitating the extraction, but also as a test of the healing power of the patient, and of the behaviour of the eye under injury. If the iridectomy were followed by iritis, it could scarcely ever be proper to proceed with the extraction prior to complete maturation of the cataract.

An occasional effect of the iridectomy, probably by the change which it produces in the intra-ocular tension, and hence in the state of the fluids within the eye, is to hasten the maturation; and, even in this way alone, it is sometimes of the greatest service to

the patient. I have seen a cataract, which was very incomplete at the time of the iridectomy, become absolutely mature within three weeks thereafter, and slip out of the eye, when the capsule was divided, without leaving a fragment of cortex behind.

When this fortunate result is not attained, but when the completeness of the recovery from the preliminary operation has been satisfactory, we may proceed to extraction as soon as this preliminary operation has, so to speak, been forgotten by the eye. In some cases, I have very gently divided the anterior capsule with a fine needle, so as to admit the aqueous humour to the cortex, and have then deferred extraction for one, two, or even three or more days, carefully watching the eye in the meanwhile, and ready to operate as soon as any symptom of irritation became apparent. In others I have divided the capsule immediately before making the corneo-scleral section, so as to have the lens better supported against the needle, and so as to be ready to apply pressure for extrusion as soon as the section was complete. This plan has been advocated, on general grounds, by Mr. Spencer Watson, and I am disposed to think that it offers some advantages. Unless one of these methods be pursued, the extraction does not differ from that already described, except in the fact that the iridectomy, having been done previously, does not need to be repeated. Another difference is that it is advisable, when the operation is finished, to close the eye in a temporary fashion for ten minutes or so, and then to endeavour to obtain the extrusion of some further portions of cortex, which, by that time, may have been detached from the capsule by the action of the aqueous humour. Of the after treatment, of the special risks which may arise, and of the methods of encountering them, I hope to say something in the next and concluding lecture.

REMARKS ON EXAMINATION OF THE NOSE.[1]

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The nasal cavities form a region of considerable interest to the surgeon, whether we regard them as the seat of the organ of olfaction, as the uppermost part of the respiratory tract into which the Eustachian tubes open, or as accessory organs concerned in the production of the voice. They are thus intimately connected with the organs of smell, hearing and speech.

In the few remarks which, at the request of our secretary, I have undertaken to make before you this evening, I propose to give an account of the different methods of examining the nasal cavities, which I have found of more or less service, making reference in passing to several of the diseases to which these parts are liable, and illustrating my remarks when necessary by a brief allusion to cases.

The general term "nasal cavity" as used above, comprises two distinct parts, the *nasal cavities* properly speaking, which extend forwards on each side from the posterior margin of the septum nasi and the *naso-pharynx*, *upper pharynx* or *naso-pharyngeal cavity*, which forms, as you know, a single space situate behind the nasal cavities and above the soft palate, and communicating both with the interior of the nose and with the lower pharynx. Broadly speaking the interior of the nose may be examined by inspection and palpation. Inspection, technically termed rhinoscopy, may take place either from the front through the anterior nares or from the back behind the velum palati.

Anterior Rhinoscopy, or inspection through the anterior nasal apertures, may appear such a simple proceeding as scarcely to need any detailed mention; the amount of information gained, however, depends so much on the mode in which it is conducted, especially on the illumination employed, that a short description will not be out of place. In the absence of all appliances, by placing the patient opposite a strong light and raising the tip of the nose with the thumb, a view, more or less extensive, of the interior of the nares is obtained. This is usually, however, quite insufficient for a thorough examination of the nasal fossa, which necessitates the use of a speculum to straighten, and if necessary dilate, the yielding nasal orifice, and a means of throwing a powerful light into the same.

Nasal specula are of various kinds. The simplest, and one which may be extemporised at a moment's notice, is a bent hairpin, with which the ala of the nose can be drawn aside. Those in ordinary use are Fränkel's, consisting of two fenestrated blades, which are best bent at an angle to the handle and are separable by means of a screw, Duplay's and Voltolini's, which have concave polished blades, and Thudichum's. Fränkel's is the one which I usually employ. Löwenberg has recently described a speculum, devised for the special purpose of introducing the Eustachian catheter into the nose under guidance of the eye. It consists of a conical tube with a slit down one side. In small children, in whom the anterior nasal aperture is round, I have found a large aural speculum answer every purpose.

All these instruments require to be held in position by one hand, whilst the nose is being examined, otherwise, even if they keep in the nasal aperture without support, they fall downwards to such an extent, that no view of the interior can be obtained. In order to have both hands free in operations in the nose, I devised sometime since, and have frequently used with advantage, a very simple speculum, consisting of two wire hooks united by an elastic band, which passes round the patient's head.[2] This instrument not only holds itself in position, but keeps up the tip of the nose sufficiently to allow of examination of the interior. Zaufal's specula, which consist of long narrow tubes, for examining the deeper parts of the nose I shall allude to subsequently.

The second requirement is a good method of illumination. I fully agree with Voltolini, that by far the most satisfactory light for either anterior or posterior rhinoscopy is sunlight. Sunlight, *not* used by placing the patient opposite the sun and allowing the rays to fall directly on him, as by this means the observer's head is apt to obstruct, very uncomfortably, the rays of light, but sunlight employed by placing the patient with his back to the sun, and allowing its rays to fall into the room just above, or to the right side of his head, and reflecting them with a *plane* mirror into the nose or pharynx as the case may be. The mirror is attached to the forehead, and should be perforated in the centre, in order to allow of the observer's eye being in the direct axis of the light. Anyone who uses sunlight in this manner will be really astonished how, probably on account of its intensity and whiteness, its light reveals the condition of parts deep in the nose, with a clearness quite unattainable by the other methods of illumination in common use. Unfortunately, however, sunlight is not always to be had, and we are therefore often compelled to resort to artificial illumination—for I may say at once, that ordinary daylight, reflected by

[1] Paper read before the Brighton and Sussex Medico-Chirurgical Society, June 7th, 1883.

[2] See *British Medical Journal*, January 5th, 1881.

means of a concave mirror, is not sufficiently powerful for either anterior or posterior rhinoscopy. The best artificial light hitherto generally accessible is that of an Argand gas burner (whether a "Silber" or a "Sugg") with as large a flame as possible. This should be placed slightly behind and to the right side of the patient on a level with his ear, and the light thrown in by means of a concave glass reflector, such as is used for laryngoscopy. In the absence of a light of this descrption, a duplex paraffin or other steady lamp may be used. The oxy-hydrogen lime light and the magnesium light, I leave out of consideration on account of their expense or complicated character. I have said that hitherto the best artificial light generally accessible was an Argand lamp, but it is not unlikely that this statement may require modification before long, when the use of the electric light becomes more general. In fact, I hoped to have shown you this evening a new electric lamp for surgical purposes, which I have ordered over from Paris. It is a small incandescent lamp which can be attached to the forehead of the observer in the same manner as a reflector.[3]

Parts seen on Anterior Rhinoscopy.—In thus examining the nose, the first thing which usually attracts attention is the inferior turbinated bone, curving downwards in scroll-like fashion, and often nearly touching the floor of the nostril. It is important to remember that the mucous membrane covering the inferior turbinated bone is very loosely attached, and has intervening between it and the bone an erectile tissue, which often rapidly swells up, completely occluding the nostril, only to subside as rapidly in the course of a few hours. I have, at the present time, a choir-boy under my care, at the Throat and Ear Dispensary, in whom this phenomenon is well marked. He came to me on account of his singing voice being impaired, as I found, by nasal obstruction. When I see this boy one day his right nostril is obstructed, and the left patent; when I see him next time, on the other hand, his left nostril is obstructed and the right free. Continuing our examination through the anterior nares, by tilting the patient's head somewhat backward we see the middle turbinal, which appears more distant and usually smaller than the inferior. The mucous membrane covering it is more closely adherent and more shiny than that of the inferior. The superior turbinal is not, as far as I am aware, visible from the front. Turning the patient's face slightly towards the opposite side we see the septum, which, by bending the head forward until the chin almost touches the breast, we can trace downwards to the floor of the nostril. It is not usual to find the septum perfectly straight. Löwenberg, as the result of the examination of a large number of skulls, finds that it is so only once in every seven times. Deflections of the septum to one or the other side are very frequent, and often add considerably to the difficulty of examining the nasal cavities. Besides general bendings, it often presents eminences or protuberances projecting into the nasal cavities. One of the most common of the forms which they assume, is a conical projection at the anterior lower part of the septum, on a level with, and almost touching, the inferior turbinated bone.[4] The floor of the nostril is raised just at the entrance and then sinks down into a hollow. With regard to the depth to which all these structures can be seen (*i.e.* how far they can be traced backwards), this depends entirely upon the conformation of the individual nostril. When the septum is tolerably straight and the nostril fairly wide (without there being necessarily any abnormal dilatation such as occurs in ozœna), the eye can, with a good light, especially that of the sun, penetrate as far as the posterior nares and naso-pharynx, and that this undoubtedly is the case, is evinced by the fact that during deglutition the play of the palatal muscles in opening the Eustachian tube can be distinctly seen through the inferior meatus. The visibility of the movements of the palate in this manner, I have found to be practically a very good test of the permeability of the inferior meatus. Zaufal recommends his specula for examining the Eustachian orifice and naso-pharyngeal cavity from the front. I have not been encouraged to use them much, and for this reason—the *larger* ones are by no means easy to pass, unless the nostril is very wide, in which case, as just mentioned, the deeper parts can be well seen with the ordinary speculum, and with the *smaller* sizes the field of vision is so very limited that their value is exceedingly doubtful. Still, they may be of use in certain cases. A word as to the appearance of these parts in some of the commoner diseases. In chronic catarrh there is swelling and increased redness of the nasal mucous membrane, although it should be borne in mind that normally the mucous membrane of the nose is redder than that of the mouth. Further, as mentioned above, swelling of the erectile tissue over the inferior turbinated bone may take place, so that we should avoid the error of attributing all swelling to catarrh. In ozœna the nostril is usually dilated, often to a great extent, and the turbinated bones are atrophied, the nostrils being occupied by hard, fœtid crusts, which frequently lie on ulcerated surfaces. And here I may mention that before examining a nose, especially by anterior rhinoscopy, it is often necessary to remove the discharge by syringing, which is best done with *cold* salt and water, the cold causing the mucous membrane to contract. (It is sometimes less trouble, however, to wipe away any mucus by wool on a cotton-holder, as in the ear. Simple blowing with a handkerchief is sometimes sufficient.) Mucous polypi, which constitute one of the commonest affections of the nose, as is well known, very rarely originate on the septum. They usually arise from the superior or middle turbinal or from the intervals between the turbinated bones. They appear as pearly globular bodies of a lighter colour than the nasal mucous membrane. On account of the occurrence of irregularity of the bones, and in order to distinguish polypi from thickened mucous membrane covering these structures, it is generally necessary to sound them carefully with a bent probe under guidance of the eye. The softness and mobility of mucous polypi serve to render the diagnosis clear. A probe thus employed is often of much value in distinguishing the different intra-nasal affections.

Posterior Rhinoscopy, or examination of the nose from the back, is more difficult of execution than the preceding, as in this case it is not a question of looking straight into the nose, but of looking round the corner, as it were, formed by the velum palati. The appliances required are—(1) a powerful source of light; (2) a small mirror for introduction into the pharynx; and (3) usually a tongue depressor.

1. *Mode of Illumination.*—All that I have said on that head in considering anterior rhinoscopy holds good in the present instance, except that when an Argand burner is employed, the intensity of the light may be further increased by means of a bull's-eye condenser held close to the flame in a metal chimney. 2. Rhinoscopic mirrors resemble those used in examining the larynx, except that they are smaller, and that the mirror joins the shaft at an inclination rather more approaching to a right-angle. Those I am in the habit of employing vary in diameter from ½ inch

[3] *December 20th.*—I have now had this lamp (The "*Photophore Electrique Frontal*") in use for three months, and find it answer admirably for examination of the nose, throat or ear. It may be obtained of Trouvé, Rue Vivienne, Paris, or of Weiss and Son, Strand, London. I have given an account of it in (The *British Medical Journal* for November 10, 1883, to which I must refer for further particulars.

[4] For further details on this subject I must refer to Löwenberg's paper in the *Archives of Otology*, for March, 1883, or to an abstract of this paper in the *London Medical Record* for June.

upwards. The requirements of a good mirror are, that, besides the glass being perfect, it should not be thicker than necessary, and that the shaft should come off straight from the lower margin of the mirror, and not make an angle after leaving the mirror. These details are of importance, as in the confined space in which we have to work every millimetre is of consequence. It is sometimes an advantage to have the stem slightly bent, so as to be convex on its upper aspect. In order to introduce the mirror into the required position to gain a view of the posterior nares, it is necessary that the tongue lie very low on the floor of the mouth. In some cases the patient can accomplish this without any instrument, but usually it is necessary for the observer to depress the tongue, either with his index-finger or with an angular tongue-depressor. A tongue-depressor, to be useful for this purpose, should be thin, in order not to take up more room than necessary, and at the same time sufficiently broad to prevent the tongue from bulging up on either side. The object, of course, is to depress the back part of the tongue as much as possible without inducing retching; and how far it is safe to venture backwards can only be ascertained by experience. The *method of procedure* is as follows:—The patient being seated, in the sun and with his back towards that luminary in the case of sunlight being used, or with the lamp rather behind him and on his right side on a level with his ear if artificial light is employed, the observer seats himself directly opposite on a rather lower stool than the patient. The latter being directed to open his mouth widely—if possible, keep his tongue down and breathe quietly through his nose—the observer depresses the tongue gently but firmly with his index finger or with an instrument held in his left hand, and throws the light by means of the head mirror on the posterior wall of the pharynx. With the right hand he then introduces the previously warmed rhinoscopic mirror, until it almost, but not quite, reaches the posterior pharyngeal wall. If there be sufficient space between the soft palate and the posterior wall of the pharynx, a portion of the naso-pharyngeal cavity will then come into view. The first part seen is probably the posterior surface of the velum and uvula. By raising the mirror somewhat, and making it more nearly horizontal, a whitish vertical band is seen, the posterior septum of the nose, and this is a point which should always be looked for, as it serves as the most convenient landmark in this somewhat obscure territory. By raising the handle, so as to render the mirror more horizontal still, the upper broadening part of the septum becomes visible. Again, by turning the mirror sideways the two posterior nares come into view, in each of which, always the two lower, and generally the upper, turbinated bones are seen. The inferior turbinated bone is grey in colour, and is often only partly visible, the lower portion being hidden by the velum. Turning the mirror still more obliquely to one side, we see the orifice of the Eustachian tube surrounded by its cartilaginous lip. Behind it appears Rosenmüller's fossa, a depression of some practical importance, as being the spot where the point of the Eustachian catheter often becomes engaged instead of in the Eustachian orifice. By placing the mirror nearly horizontally, the roof of the naso-pharynx can be seen occupied by irregular elevations formed by the pharyngeal tonsil; and by making it still more nearly horizontal, the posterior wall of the naso-pharynx comes into view very much foreshortened. In commencing an examination, it is perhaps well to use a small mirror; but it must be borne in mind that the larger the mirror, not only the greater the extent of surface visible without changing its position, but also the better the illumination of the naso-pharynx, for the mirror of course serves the double purpose of transmitting the light into the naso-pharynx, and of reflecting the image into the observer's eye. Also it is obvious that the higher and more vertically the mirror can be placed, the more direct (*i.e.*, less foreshortened) will the view of the posterior nares be.

Now, our great enemy in carrying out posterior rhinoscopy is the soft palate, which, if in the least irritated, and often without any irritation whatever, directly the patient opens his mouth, rises upwards, cutting off all access to the naso-pharynx from below. Various means may be adopted for causing it to descend, such as making the patient sniff up through his nose, making him pronounce the French word "on," causing him to make a snoring movement, etc., any of which are sometimes effectual, and are often of much use in cases in which there was a fair space *before* the palate contracted. But unfortunately, there are instances in which even when the velum is relaxed, there is scarcely any interval between it and the pharyngeal wall. If, in a case of this description, sufficient view cannot be obtained by means of the *smallest* sized mirror, it is necessary to employ some means of drawing forward the soft palate. Many have been the instruments devised for this purpose, hooks of various kinds and shapes, from the original one of Czermak, to the one recently recommended by Voltolini, the passage of a ribbon by means of a Belloc's sound round the soft palate, various uvula snares and forceps, etc,, etc. These all, as far as I know, have the drawback that in the great majority of cases, any attempt to draw forward the velum with them, produces so much irritation, accompanied by retching, that the instrument has to be precipitately withdrawn. Voltolini has in his work on Rhinoscopy, so strongly recommended the use of his hook in a large proportion of the cases that are met with in daily practice, that I have given it a trial in a considerable number of patients, as the result of which, I am sorry to say, that my experience hitherto does not accord with that of the inventor[5]. I have found, in fact, that usually the hook produces too much irritation to allow of its being used, but where I have really found it of value, is in cases such as those we are just considering, in which, as the Germans say, there is *Rachenenge*, *i.e.*, a very small interval behind the soft palate. By accustoming the patients to the use of the hook, in cases of this description, a good view of the naso-pharynx can be procured, which would otherwise be quite unattainable. My own experience is that in the great majority of cases, with patience and the use of a small mirror, a view of the posterior nares, sufficient for practical purposes, may be obtained without any hook. As in applying the hook, both hands are required, one for the hook, and the other for the mirror, Voltolini has recommended an automatic tongue-depressor. I have not had much success with this, as it is apt to slip off, besides not depressing the tongue sufficiently. I have found it much more simple and convenient to let the patient hold down his own tongue with an ordinary depressor.

Palpation of the *anterior nares* is of course simple enough. The well-oiled little finger being insinuated into the anterior nares, serves to diagnose swellings on the septum, etc. But it is palpation of the *posterior nares* to which I wish particularly to draw your attention. This method of diagnosis is one which I think is not sufficiently employed. It has the great advantage over posterior rhinoscopy, that it can be carried out without either any previous training on the part of the patient, or special skill on that of the surgeon. It is most conveniently performed as

[5] I may remark that Voltolini considers the large size of his hook very important, as enabling it to obtain a firm grasp over the palatal muscles.

follows :—The patient being seated, the surgeon stands to one side of him, and steadying his head by means of one hand on the vertex, passes the forefinger of the opposite hand (preferably the left, on account of its smaller size) rapidly to the posterior wall of the pharynx, and up behind the soft palate, until the posterior septum is felt as a hard thin ridge. On the two sides, the inferior turbinals give the impression of soft cushions, which one is very apt to mistake for polypi, especially if they are at all swollen. This error may however easily be avoided by a comparison of the sensation experienced on the two sides. The situation of the Eustachian orifices can also be felt, although I am not aware that any diagnostic fact of importance can thus be ascertained. A most important part to examine, is the roof and posterior wall of the naso-pharynx. Its importance rests on the fact that it is in these two situations that *Adenoid Vegetations* have their seat. Normally these have, it is true, a somewhat uneven surface, but when adenoid vegetations are present, they present more or less pedunculated growths of all sizes and shapes, which, in well-marked cases, completely fill the naso-pharynx, giving to the finger the sensation of a bunch of worms. This disease, which is a very common one in childhood, was first described by Meyer, of Copenhagen. I have given a short account of it in the *British Medical Journal* of Aug. 5, 1882. Palpation of the naso-pharynx must be rapidly executed, as it is disagreeable to the patient, and liable to produce retching. In children and refractory patients, it is well to guard the first phalanx of one's forefinger with an india-rubber ring; and the finger may, as I found, with advantage, be lubricated with a mixture of glycerine and water. After palpation has been repeatedly practised, the sensitiveness of the parts becomes to a certain extent blunted.

It is hardly necessary for me to say, that before proceeding to the physical examination of the nose, in the manner I have described, the history of the case should be made out, and the subjective symptoms, both general and local, from which the patient is suffering, carefully ascertained. It is also well to test the perviousness of the nostrils, by making the patient blow through them alternately,

The practical conclusion which may be drawn from these remarks, is, I think, the following, viz. :—Anterior rhinoscopy and palpation of the naso-pharynx are valuable means for the examination of the nose, which are at every surgeon's command, and the two together, will often suffice to make a satisfactory diagnosis. A *complete* examination of this organ, however, necessitates the employment of posterior rhinoscopy, which, generally speaking, needs only a little care and patience on the part of the surgeon for its successful performance.

(The paper was illustrated by several diagrams and by numerous instruments.)

Agaric in Night-sweating in Phthisis.—In the *Wiener Med. Wach.* (1883, No. 38), Dr. Otto Seifert, after repeated trials, speaks highly of the efficacy of agaric in the night-sweats of phthisis, as recommended by Dr. Young in the *Glasgow Med. Journal*, 1882, p. 176. He employs the active principle of *agaricus albus* as prepared by Merck of Darmstadt, in pills of a minimum dose of five milligrammes, which may, if necessary, be increased to a maximum of two centigrammes. Comparative trials convinced him that the *agaricin* is most efficacious when administered as soon as the sweating commenced, instead of some hours before. The remedy may also be given as a subcutaneous injection with the same effects, but the burning pain it causes induces patients to refuse to submit to its repetition.

A CASE OF COMPOUND FRACTURE OF A FINGER WITH SUBSEQUENT CARIES OF BONE TREATED SUCCESSFULLY ON CONSERVATIVE PRINCIPLES.

By WILLIAM BAIN, L.R.C.P., L.R.C.S.

H. T., aged two years, received a compound fracture of the first phalanx of the right middle finger, with severe laceration of the tissues, on the 16th February, 1883. The accident occurred through the boy slipping his hand between the cogged wheels of a wringing machine while they were in motion. The first phalanx of the middle finger of the right hand was chiefly affected. Posteriorly a ragged wound, nearly three-quarters of an inch in length, extended from about the centre of the web between the middle and ring fingers in a vertical direction, to a point a little above the knuckles. Anteriorly a lacerated wound extended from the palmar groove in front of the metacarpo-phalangeal joint in a slightly oblique direction along the third metacarpal bone for half an inch. The tissues over the palmar aspect of the first phalanx were completely removed down to the bone, with the exception of the tendon of the flexor profundus digitorum, which was drawn to the left side of the protruding bone; not a vestige even of the periosteum was left. A very small portion (probably about an eighth of an inch) of the distal end of the bone was carried off, while the artificial end thus produced projected almost directly forwards for nearly a quarter of an inch from its usual position. The bone was quite bare from the terminal end to the palmar groove already mentioned. Hæmorrhage was very trivial. Two silk stitches were employed to bring together the edges of the posterior wound. The raw surfaces of the anterior wound were brought into close apposition by two silk sutures. I now directed my attention to the bone. I pushed it into its proper place and drew the tendon over it, so as to aid in retaining it in its normal situation. I then attempted, by means of two silver sutures, to draw the mutilated tissues at the sides of the finger into as close proximity as possible over the bone. Notwithstanding a good deal of traction, a gap of an eighth part of an inch intervened between the edges of this wound. A well padded splint, extending from the tip of the finger to the wrist, was applied along the dorsal aspect of the hand, and kept in position by strapping. Carbolic acid dressings were employed throughout. The spray was not used.

For a few days everything went on satisfactorily. The anterior and posterior wounds did well, but in less than a week's time the flexor tendon sloughed away, and a few days after the silver stitches lost their hold, thus permitting the bone to project, as at first. I put small pledgets of lint over the bone, and strapped it down with adhesive plaster. The pressure thus applied, produced irritability of the wound and consequently had to be discontinued. I then put on an angular splint. I thought that, if the finger was kept in a bent position, the bone would be less likely to project, but I was again destined to disappointment. The bone projected do what I would, unless pressure was directly applied to it. I next devised a very simple apparatus—a tack, the head of which was held between two layers of isinglass plaster, the pointed extremity being in contact with the bone, and the length of the tack precluding the possibility of pressure by the plaster upon the edges of the wound. This caused the little patient some pain, and on removing the dressings I found blood had been extravasated from the bone. A piece of cork was next laid along the bone, which was secured by strapping. This acted very effectually for a time, but

three days after this procedure had been adopted the bone died. The odour was so very offensive that all hope of saving the finger was now reluctantly abandoned. On the 7th of March the child was put under the influence of chloroform in order to have the finger taken off. Like "a drowning man catching at a straw" I again explored the doomed digit, and having removed all I could of the dead bone, which included the first phalanx as far back as the palmar groove already referred to, I dressed the wound, readjusting the straight splint as before, determined to persevere to the last in the treatment I originally recommended. I may mention that the child's health now began to suffer. He became fretful, restless at nights, appetite impaired, tongue furred, and there appeared on different parts of the body a few papular spots, some of which developed into pustules. These symptoms may have been due to dentition. In a few days the wound lost its offensive odour, and looked healthier. In a week's time a profuse crop of unhealthy looking granulations sprang up, to which I daily applied nitrate of silver, which eventually caused their disappearance. The finger was very much thickened, especially that part from which the dead bone was removed. About the beginning of April the wound was nearly healed; in fact, I told the mother that it would be unnecessary for me to call again; but some days after a small abscess in the site of the wound burst, and a series of these prevented it from being thoroughly healed until the 21st of May.

I may state that two medical friends saw the case several times. One of them was summoned along with me on the day of occurrence, and advised immediate amputation of the mutilated finger.

June 12th.—The finger looks well. It is shorter than natural. The part from where the carious bone was removed is still enlarged. He can extend the finger at will, but flexion is impaired.

December 18th.—The finger has improved very much in appearance. It is not quite as long as the forefinger. The enlargement is gradually disappearing. The first phalanx feels firm, as if there were some spiculæ of bone in it.

Remarks.—I think the case is a fair example of the triumphs achieved by conservative surgery. If I were to have a similar case again, I should at once excise a portion of the projecting bone, and instead of inserting wire sutures I should use catgut, treating the wounds antiseptically. I think the silver stitches caused irritation, especially as so much traction was absolutely necessary if they were to be of any value. If the bone could have been retained in its proper position without pressure on the wound or injury to the bone, I feel sure the case would have done well. It was suggested to me to cut the second and third dorsal interossei muscles (which I considered the cause of the bone projecting), but I did not feel myself justified in attempting a proceeding of doubtful utility and requiring such nicety of execution. It might be asked, is it absolutely justifiable in order to save a finger to expose a child for three months to the risk of septicæmia? I think so. The boy, when he attains the age of manhood, will most probably earn his livelihood by the use of the pen, and the finger will be of great advantage to him in wielding that instrument. Besides, should septic poisoning supervene, or any other untoward symptom, amputation could at once be resorted to and thus avert any dangerous tendencies.

The Glasgow Convalescent Home.—The annual meeting of the subscribers was held on the 15th instant. The report for the year showed that 1,450 patients had been treated, at a cost of £2,077. The average stay per patient had been 18¼ days, and the average cost 1s. 6¼d. a day.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASE OF ANEURYSM OF RIGHT ULNAR ARTERY.

(Under the care of Mr. EDMUND OWEN.)

(For the report of this case we are indebted to Mr. Herbert Tanner.)

James W., aged 38 years, a strong, healthy-looking labourer, was admitted to the Thistlethwayte Ward on November 12th, 1883. He had suffered but little from disease of any kind, having had only rheumatic fever, when he was 18 years old; but he acknowledged having been a great drinker up to within the last year or two. No evidence of syphilitic taint could be obtained.

He was accustomed to work chiefly with a spade, and was thus engaged five weeks before admission, when he first had symptoms that something was wrong with the upper part of his right forearm; he noticed a small tumour, about the size of a nut, which gradually increased till at the end of a month it was as large as a walnut, the pain in the part proportionally increasing and extending down the forearm to the hand chiefly to the radial side. A week before admission he had to use a heavy hammer in his work, and during this time the swelling increased rapidly. During the day when he first experienced pain, he had not noticed any snap or "giving way" in the limb whilst at work.

On admission, he was found to have an enlargement at the upper part of right forearm, about level with the neck of radius, but chiefly to the inner side of the median line; this swelling was found to pulsate distinctly on applying the fingers, and they were sensibly and visibly separated laterally at each pulsation; a very distinct bruit was to be heard by means of the stethoscope. The tumour was situate at the anterior aspect of the limb; the circumference of the forearm just at this point measured 12½ inches, whilst that of the left limb at the same level was 11⅜ths inches, but there was greater muscular development on the right than on the left side. The swelling could be felt to be circumscribed, of about the shape and size of an egg. Pressure applied to the brachial artery completely arrested the pulsation of the tumour, which immediately re-apppeared on removing the pressure; the pulsation was also arrested by strong flexion of the elbow joint, but this gave great discomfort. The pain he felt chiefly on the anterior aspect of the forearm and wrist, and also had a numbed sensation in the thumb and fingers, corresponding exactly to the anatomical distribution of the median nerve, viz.:—at the palmar aspect of the thumb, at both sides of the index and middle fingers, and at the radial side of the ring finger, as well as at the dorsal aspect of the lower half of the three digits mentioned.

There was pulsation in the radial arteries of both limbs, but none could be felt in the ulnar of the right side. The superficial veins of the limb were dilated, owing to the pressure upon them above, and a hyperæmic blush covered the site of the tumour; but this was due to the fact that the patient and his friends had diagnosed the abnormal condition as "rheumatic," and had been treating the part by application of mustard poultices. The anterior branch of the superficial temporal artery was compressible and not tortuous; the urine quite normal. The pulse was 48, soft and compressible, and the right hand was sensibly hotter than the left.

Operation:—On November 14th, ether having been administered, Mr. Owen ligatured the brachial artery

in the middle of its course; a catgut ligature was applied, and the pulsation of the aneurysm immediately ceased. The wound was syringed out with a weak solution of iodine, a small drainage tube put in, and the edges were brought together by silver sutures. A sponge, squeezed dry from the iodine solution was laid over the wound, and over this a pad of salicylic wool, and the whole limb enveloped in a thick covering of wool.

The patient did not sleep during the night following the operation, the limb being in much pain; the hand felt warm the next morning, the pulse was 120, temperature subnormal. The wound was redressed every alternate day, was very healthy—iodine solution and salicylic wool being used throughout.

On the 20th November—six days after the operation—the wound was healed, except where the drainage tube lay; two days later all the cotton wool was removed, and the aneurysm was found to be completely solid. Circumference of limb 11½ inches, where previously it measured 12¼. The limb was encased in the semiflexed position in plaster of Paris to insure absolute rest.

On the 27th (13 days after operation), the plaster case was removed, the wound being completely healed, and the tumour solid and hard. Radial pulse distinct, but none to be detected in ulnar artery. Patient, being very anxious to go home, was discharged on December 4th, promising to keep the limb in a sling, and not to use it for a week or two.

The temperature was subnormal the whole time under treatment, except on the third day after operation, when it reached 99°.

Remarks (by Mr. Tanner).—This case is of much interest, in that it is so typical of the aneurysmal condition—typical in its mode of origin, and in its successful removal by ligature of the vessel on its proximal side on Hunter's principle. Judging by the history of the patient's past life, and of the commencement of the aneurysm, there can be little doubt that the condition arose from degeneration of the arterial wall, brought about by that potent agent in degeneration—physical and moral—alcohol. The aneurysm was felt to be distinctly circumscribed, and the history of its commencement points to the fact that there was not rupture of the arterial wall as a whole. The symptoms of aneurysm were all present to a remarkable degree of distinctness, and its pressure-effects on the contiguous nerve, the median, were highly interesting. The irritation of the median nerve was most distinct—the patient pointing out the exact distribution of the sensory branches of the nerve by indicating where he felt pain or abnormal sensation as correctly as if he were an anatomist. The effects of the operation were completely satisfactory. The day after the operation collateral circulation was well established.

MANCHESTER HOSPITAL FOR SICK CHILDREN.

CASE OF GLIOMA OF THE PONS, PARALYSIS OF RIGHT SIXTH AND SEVENTH NERVES, AND HEMIPLEGIA.

(Under the care of Dr. HENRY ASHBY.)

JOHN M., æt. 9 years, was admitted to the General Hospital for Sick Children, Feb. 19, 1883. His mother stated he was quite well till a month before Christmas, 1882; it was then noticed that he held his head flexed towards the left shoulder, and had a peculiar gait, throwing his legs forward. About Christmas time, it was noted that he turned his right eye inwards, that his face was drawn, and that he vomited at times when he got up in the morning. The vomiting sometimes continued all day, and at times he complained of pain at the back of his head. He had never had any convulsions, and there was no history of an injury of any kind.

Present state.—He is a well nourished boy with a somewhat heavy look. He has almost complete right facial paralysis; on attempting to close his eyes, the right only slightly closes, being turned upwards and inwards; the angle of the mouth is drawn to the left, the right side of face being quite motionless. There is paralysis of the right external rectus, the eye-ball moving up and down and in, but not outwards. The pupils are dilated, but act to light. The grasp of the left arm is weak, but he can use it, the left leg is also feeble, though he can walk; knee-jerk present, but most marked on the left side. No loss of sensation on the face, but there seems to be some loss in the left hand, as he either doesn't feel a prick, or refers it to the wrong finger. Sight fairly acute; both optic discs are swollen, edges blurred, veins very full; no hæmorrhages. P. 116. T. 99°.

Feb. 27.—Vomiting has been very troublesome since admission; last day or two has been fed per rectum; abdomen retracted; is very drowsy.

March 13.—Since last note has had a scarlatinal rash and slight elevation of temperature; vomiting better.

March 26.—Vomiting very troublesome; fed per rectum; is very drowsy.

April 4.—Vomiting better. Talks and answers questions; evident loss of sensation in left arm; can sit up, but cannot stand by himself.

April 8.—Vomiting continuously, is drowsy and can hardly be roused; the left eye-lid droops, both pupils are dilated and sluggish; left upper extremity quite powerless, sensation impaired. Both lower extremities can be moved voluntarily, but are weak; knee-jerk and ankle-clonus present in right, both absent in left.

April 10.—Death.

P.M.—Body thin, but not wasted.

On removing the brain and placing it base upwards, it is apparent that the pons is larger than normal, especially on the right side, where its surface is irregular from the presence of small nodular projections. The sixth and seventh nerves of the right side have been evidently flattened and stretched, as they pass round the lower border of the pons. The vagus is also pushed away from the median line, the fifth not much interfered with. On exposing the fourth ventricle, by placing brain base downwards and dividing the median lobe of the cerebellum, the floor is seen to be occupied by an elastic swelling 1⅓ inch in diameter, and separating the restiform bodies; the swelling contained mucoid fluid. The cerebum is normal, the lateral ventricles distended. The cerebellum healthy, except some softening where it is in contact with the swelling in fourth ventricle.

On section through pons, it is seen that its right inferior part is occupied by a firm grey infiltration, which has expanded its substance irregularly and encroached on surrounding parts; the infiltration involves the whole thickness of the pons anteriorly and posteriorly, and encroaches on left side, and it has undergone mucoid degeneration, forming the fluctuating swelling present in fourth ventricle. The limits of the tumour cannot be well defined, as it shades away imperceptibly into surrounding parts. On microscopic examination, the tumour proved to be a glioma.

Remarks—From the first but little difficulty existed in localizing the tumour. Paralysis of the sixth and seventh of the right side, with a left hemi-paresis, pointed plainly to a tumour involving the lower border of the right side of the pons. This diagnosis was still further strengthened as the paralysis of the left arm and leg increased, and the vomiting, pointing to interference with the vagus, became continuous. Gliomata are comparatively rare during childhood, tubercular masses being infinitely more common.

Medical Times and Gazette.

SATURDAY, JANUARY 26, 1884.

Mr. Brudenell Carter's second Lettsomian Lecture (which will be found in another column), was delivered before the Medical Society on Monday evening last. The lecturer first alluded to the question of "maturity," or "immaturity" of cataracts. The word "maturity" he said, "was understood to signify that the degenerative changes had spread to the whole thickness of the lens," and he pointed out how this maturity might generally be guessed at. The advantages of waiting for maturity were balanced against its manifest disadvantages; maturity sometimes requiring years, during which, of course, the unfortunate patient was practically without eyes—where the means of livelihood depended on good eyes, this waiting became disastrous. The conditions which justified early operations were next dwelt upon, and the latter part of the lecture was devoted to a lucid description of the procedures most usually and successfully practised in this and other countries. The final lecture will be delivered on February 4th, and will embrace the questions of after treatment, the special risks of the operation, and the most approved methods of encountering them.

At the meeting of the Medical Society on Monday evening, the 28th inst., the president, Sir Joseph Fayrer, will read a paper on snake poison, and its treatment. The paper will be founded on a case which was under the author's care. As the author of a magnificent work on the Thanatophidia of India, Sir Joseph is well qualified to speak on the subject of snake poison: he will, doubtless, have a large and appreciative audience. On February 11th, Mr. Bryant will introduce the subject of irreducible hernia, and Mr. Jonathan Hutchinson will contribute a paper on "Lupous Disease of the Skin;" Feb. 18th and 25th will be devoted to a discussion on the cold bath treatment of enteric fever, in which Drs. Coupland, Bristowe Barlow, F. Taylor, Gilbart Smith, Samuel West, and Myers, will take part; and on Monday, March 3rd, Surgeon-General Hunter will read his deferred paper on "The recent Epidemic of Cholera in Egypt."

At the Royal Medical and Chirurgical Society, on Tuesday last, Dr. Roy gave an address on the "Mechanism of the Blood Pressure." Owing to the length of time which it occupied, to its fragmentary character, and to the fact of its even then being incomplete, the communication fell somewhat flat, and there was no discussion on it. It were much to be wished, on many grounds, that such addresses should be carefully prepared and written out; for then much needless repetition would be avoided, and the practical points would be more clearly stated. Dr. Roy had evidently taken great pains with his subject, and doubtless had many new and important facts to communicate, which, owing to diffuseness and want of co-ordination, were quite lost on the bulk of his hearers.

The President, at whose invitation Dr. Roy had made this communication to the Society, expressed his satisfaction with it, and the hope that others of a similar kind might follow. He thought there were subjects of great physiological and pathological importance which ought to come before them, rather than before the Royal Society to which such papers were usually offered. We can only hope, if such papers do come before the Medical and Chirurgical Society, that they will be subjected to the same rules and restrictions as regards length and reading, which apply to other communications. The object of the Society is to discuss, and not merely to listen to addresses.

Mr. Victor Horsley, at the same meeting, briefly described, as a preliminary communication, the specimens exhibited by him illustrating the existence of nerve fibres (special) and end bulbs, with also Pacinian bodies in the epineural sheath of nerve trunks. The specimens consisted of horizontal sections of nerve trunks treated with osmic acid and alcohol. They showed delicate nerve fibres accompanying the blood vessels and possibly vaso-motor nerves, while in addition there were separate fibres running parallel with the primitive bundles, and terminating either in a simple end bulb or a Pacinian body. These nerve fibres, possibly of sensory function, were shown to arise from either the primitive bundles or from branches of the same. All but one of the sections shown were from the human subject, in cases where emaciation had removed the fat with which the epineurium is thickly packed.

The Council of the Royal Medical and Chirurgical Society are anxious to find a successor to Mr. Wheatley, their late resident librarian, with as little delay as possible. They can hardly expect to get such efficient services as they have been accustomed to, but the inducements detailed in our advertisement columns are such that they ought to find no difficulty in filling the post.

The discussion on Surgeon-General Hunter's paper on the Origin of the Cholera Epidemic in Egypt, read before the Epidemiological Society, will take place on Wednesday February 13th, at 8 p.m., at 11, Chandos-street, Cavendish-square. It is expected that many members and visitors, interested in the subject, will take part in the discussion, and it is requested, with a view to the convenience of the meeting, that those gentlemen intending to do so, should communicate with Mr. Shirley Murphy, the hon. secretary, not later than Monday, February 11th. It is proposed to limit each speaker to ten minutes, and the names will be noted in the order of the receipt of their applications. The discussion will be opened by Sir William Smart, K.C.B., followed by Surgeon-General Balfour.

At the Annual General Meeting of the Odontological Society, which took place on the 14th instant, the following members were elected to serve as office-bearers for the year 1884:—*President*, Jas. Smith Turner, M.R.C.S. and L.D.S., Eng.; *Vice-Presidents*,

Messrs. Henry Moon, T. Charters White, and Geo. Gregson (Resident), and Wm. Doherty, of Dublin, J. T. Browne-Mason, of Exeter, and Richard White, of Norwich (Non-resident); *Treasurer*, Jas. Parkinson; *Librarian*, Felix Weiss; *Curator*, S. J. Hutchinson; *Editor of Transactions*, Henry Sewill; *Hon. Secs.*, Messrs. J. H. Mummery (Council), David Hepburn (Society), and R. H. Woodhouse (Foreign Correspondence); *Council*, Messrs. G. A. Ibbetson, Ashley Gibbings, Thos. A. Rogers, Chas. S. Tomes, F. Canton, Alex. Cartwright, W. St. George Elliott, Augustus Winterbottom, and Storer Bennett (Resident); and R. Rogers (Cheltenham), W. Hele (Carlisle), A. Wilson (Edinburgh), J. Fenn Cole (Ipswich), Geo. McAdam (Hereford), and W. E. Harding (Shrewsbury), Non-resident. Mr. J. Bland Sutton, Lecturer on Comparative Anatomy at the Middlesex Hospital Medical College, read a paper on "Comparative Dental Pathology," illustrated by means of a number of interesting specimens and drawings, in which he had attempted to collect and classify all that is at present known of the diseases of the teeth in animals. The retiring President, Joseph Walker, M.D., afterwards delivered a short valedictory address, in which he expressed a strong opinion that some changes were necessary to make the society more attractive to the junior members of the profession, and to enable it to maintain its position against the rivalry of younger institutions.

M. Paul Bert's method of administering chloroform was discussed at the meeting of the Académie des Sciences on Monday last. M. Gosselin characterized M. Bert's apparatus as unwieldy, inconvenient, and unsuited for ordinary practice. It was true that in the ordinary simple method of administering the anæsthetic on a handkerchief, one could not accurately say how much air was mixed with the anæsthetic vapour, but one proceeded with caution, intermitting the administration from time to time, watching the patient carefully, and regulating the anæsthetic according to the symptoms observed. The objection to M. Bert's method was that one was obliged to administer the same proportion of chloroform from the beginning to the end of the operation. That was a defect which might sooner or later lead to an accident. But M. Bert's experiments would have served at least to prove that the amount of chloroform required to produce anæsthesia is comparatively small, not exceeding eight grammes (two drachms), and that large doses are as unnecessary as they are dangerous. M. Bert desired that the discussion on his gasometer should be delayed until he could make it more portable and manageable. Theoretically one could hardly hesitate to choose between the two methods. M. Gosselin rejoined that the adoption of the gasometer meant the substitution of a blind mechanism for the series of intelligent and voluntary acts, by which the administration should be conducted, and which should ensure its success.

Mr. R. Clement Lucas has been elected a corresponding member of the Société de Chirurgie of Paris.

The metropolis keeps remarkably healthy. Last week the deaths were 326 below the ten years' average, nearly half of that number being accounted for by the comparatively low mortality from respiratory diseases. Of the zymotic diseases, whooping cough was the most fatal. It caused 69 deaths, which was still eight below the average. The deaths from enteric fever on the other hand, which numbered 24, were eight above the average. The deaths from diphtheria, sixteen in number, also exceeded the average by six, but, in this particular instance, we fear the returns are not altogether reliable. Though many more cases are probably admitted to be diphtheria now than at any previous time during the ten years from which the average is taken, there are, no doubt, still an appreciable number of deaths from the disease registered under other names. The disease continues very fatal in Berlin, where in the last week of last year 69 deaths from it were recorded.

On Thursday, January 17th, the Right Hon. George Otto Trevelyan, M.P., received at the Chief Secretary's Office, Dublin Castle, an influential and representative deputation from the Dublin Sanitary Association, the Royal College of Surgeons in Ireland, the Irish Medical Association, and the Dublin Branch of the British Medical Association, on the subject of the Notification of Infectious Diseases. The different speakers freely admitted the necessity which existed for some such means of checking the spread of epidemic diseases, and urged upon the Chief Secretary, as the representative of the Irish Executive, the importance of introducing to Parliament, a bill on the lines of that prepared and brought in by Mr. Charles Meldon, M.P., in the session of 1882. That measure laid the onus of compulsorily notifying the occurrence of infectious disease upon the person in charge of the sick individual, or the occupier or owner of the infected house, but left it optional to the medical attendant to notify, if he should think fit himself to do so. In this latter case the responsibility of notifying would be transferred from the occupier to the physician. Mr. Trevelyan promised to give the matter his careful consideration.

We understand that Mr. Richard G. Butcher, lecturer on operative and practical surgery in Sir Patrick Dun's Hospital, Dublin, and examiner in surgery in the University of Dublin, is in a very delicate state of health.

It may be in the recollection of our readers, that the Union Officers' Superannuation Bill (Ireland) brought in last session by Mr. Herbert Gladstone, M.P., was lost in the committee stage in the House of Commons, at the very close of the session. On Wednesday, the 23rd instant, a deputation from the King and Queen's College of Physicians, the Royal College of Surgeons in Ireland, the Irish Medical Association, and the Dublin Branch of the British Medical Association, waited upon the Chief Secretary to the Lord Lieutenant at Dublin Castle, to urge upon him the importance of re-introducing the Bill of last session, as a Government measure, early in the coming session. Replying to the deputation, Mr. Trevelyan said he would confer with Mr. Herbert Gladstone on the

subject, and that if he saw his way to again bring forward the measure, he (the Chief Secretary) thought the Government would actively co-operate in the endeavour to carry it through Parliament.

On Tuesday, January 8th, a deputation from the Pharmaceutical Society of Ireland waited on the Chief Secretary to the Lord Lieutenant, at Dublin Castle, to draw attention to certain defects in the "Pharmacy (Ireland) Act, 1875," and to suggest various amendments. The deputation consisted of Mr. James E. Brunker, M.A., Univ. Dubl., the President; Mr. Harry N. Draper, F.C.S., the Vice-President; and Messrs. Allen, Collins, Grindley, Hodgson, Montgomery and Simpson; Mr. Hugh James Fennell, Registrar, accompanied the deputation. It appears that throughout the greater part of Ireland the "Sale of Poisons" Act is at present a dead letter, poisonous substances being sold in the small country towns and villages by hucksters, stationers, ironmongers, grocers and others. The majority of the Council of the Pharmaceutical Society thought that it would be in the interest of the public that in future all persons should be licensed to sell poisons only on passing a moderate examination. It was proposed to call such persons "Registered Druggists." The Chief Secretary said he would do all in his power to meet the wishes of the deputation, the members of which then withdrew.

At last Saturday's meeting of the Metropolitan Asylums Board the proposal to build a convalescent hospital for fever and small-pox at Winchmore Hill was opposed with a perseverance which almost amounted to obstruction. Four divisions, all practically involving the same point, had to be encountered before the scheme was finally passed by a majority of 27 to 17. The Local Government Board has still to give its approval, but it is hardly to be expected that that authority will place difficulties in the way of a proposal which, if it throws an additional burden on the ratepayers with one hand, will probably take off ten times that burden with the other. Have the managers who oppose the scheme ever taken the trouble to reckon up how much a case of scarlet fever, sent out of hospital before the full period of infection is over, may cost the community? The obstructive managers are penny-wise and "pony"-foolish.

The amalgamation of the forces of the Great Northern Hospital with those of the proposed new Central Hospital for North London was successfully effected at the meeting held on Saturday last, under the generalship of the Duke of Westminster. The name, constitution, and mode of government of the new hospital, were severally agreed upon; and a building fund was opened, which, with the funds already at the disposal of the Great Northern Hospital, will at once enable the committee to proceed to negotiations for securing a site for building operations. The necessity for increased hospital accommodation in the northern districts formed a fertile theme for all the speakers, and must have duly impressed the large and attentive audience. No more satisfactory means of meeting this want could be found than in the cordial union of the practice and traditions of an old established institution with the vigour and vitality of a local association, fully pledged to carry to a successful issue the undertaking which they have initiated.

Whilst urging the claims of the new Hospital upon the dwellers in North London, the Marquis of Salisbury took occasion to observe that the subject was not one with which he himself was specially familiar, and his subsequent remarks upon the question of paying-wards will no doubt be regarded as sufficient illustration of the truth of this confession. With a deeply-rooted conviction of the superiority of the medical attendance given in hospitals to the average medical attendance given anywhere else, it has always appeared to him "rather hard that the more well-to-do classes of the community are shut out from the best medical advice, treatment, and attendance that can be obtained," owing to the fact that hitherto no opportunity has been given them of enjoying such attendance, in consideration of small sums paid to a hospital committee! We sincerely trust that the governing body of the Great Northern Central Hospital, whilst duly appreciative of the support of the noble marquis, will pause before adopting the principle shadowed forth in his speech. The abuses of hospitals and of the gratuitous services of honorary physicians and surgeons are already sufficiently numerous, without the introduction of a system which would be a direct incentive to wealthy, but unscrupulous, persons to profit by the advantages intended solely for the classes below them, and which would react most unfairly upon general practitioners in the district from which such persons would come. The establishment of pay-wards or a pay wing, or in plainer words, the establishment of a medical hotel, in connection with the free and general hospital, will no doubt prove a useful source of income to the latter, but we may confidently assert that the gratuitous services of the medical staff will be reserved for the hospital alone.

Dr. George Paddock Bate, in his annual report on the sanitary condition of Bethnal Green for the year 1882, remarks that there are no less than three disused cemeteries within the boundaries of his district, in addition to the graveyards attached to the various churches. Even at the time when intra-mural interments were abolished by law these cemeteries were very full of bodies, and, in the case of at least one of them, several attempts have been made to let the ground on a building lease. Recently a speculator has announced his intention of erecting, on the Peel-grove Burial-ground, a block of industrial dwellings for the accommodation of 400 persons; he proposes simply to lay a bed of concrete, and to build upon that without removing the remains. If this be permitted, Dr. Bate observes, subsidence of the ground will certainly take place from time to time, creating fissures even in concrete foundations, whereby not only will the stability of the houses be endangered, but noxious emanations will arise from the mass of putrefying human remains below. It would seem from Dr. Bate's report, that

nothing can be done to prevent owners from building upon disused burial-grounds, except under the by-laws of the Metropolitan Board of Works, unless human remains are actually disturbed; and in this case no remains are to be disturbed. And further, from some legal quibble, it is questionable whether the Board's by-laws can be put in force in this instance; should the speculator determine to proceed with his project, the matter will, Dr. Bate adds, probably become the ground of an action at law; and should the decision be adverse to the parochial authorities, they will still have the power, when the houses are finished, to have them closed as unfit for human habitation, under the 13th section of the Nuisance Removal Act. Nevertheless, it is much to deplored that Acts and By-laws are drawn in such a manner as to render the violation of all sanitary laws, as in this instance, in any way possible.

The Medical Faculty of the Vienna University at its last meeting had a warm debate as to who should be recommended to the Minister for election to the second anatomical chair. Prof. Langer, in his report on the eligible candidates, while expressing himself in the warmest terms as to the abilities and acquirements of Prof. Zuckerkandl, of Gratz, recommended that his name should only be sent in *secundo loco*, and that Prof. Zoldt, of Prague, should be placed *primo loco* on account of his great anatomical talents, and because the services he had rendered at Prague, by the construction of the great anatomical institute there, indicated the importance of his transference to Vienna, where a second anatomical institute is about to be erected. Prof. Albert maintained that Prof. Zuckerkandl's merits were so high that the two candidates should be retained *ex æquo*, but his motion to that effect was lost, obtaining only six votes against fifteen given for the report.

In an article in the *Allgemeine Med. Zeitung*, Dr. B. Kraus, the editor, discusses the question, "Whether the sons of poor men should study medicine?" in reply to a contemporary who had declared that medical education had become so costly that none but the rich could afford it. Dr. Kraus, speaking specially of the Vienna School, declares that the fear is groundless; and first he recites the names of the recent and present professional staff, in proof of what may be done by poor men's sons. Certainly the list is a noble one, and well worth transcribing. He mentions Rokitansky, Skoda, Hyrtl, Arlt, Oppolzer, Ludwig, Pitha, Schuh, Stellwag, Jäger, Albert, Hoffmann, Langer, Brücke, Bamberger, the two Brauns, Späth, Wedl, Schneider, Nothnagel, Billroth, Scanzoni, Linhart, Jaksch, Hasner, Gruber, Auspitz, Ultzmann, Kaposi, Neumann, Blasius, Kundrat, Schlager, Pollitzer, Stricker, Leidesdorf, Schroff, Zuckerkandl, Meinert, Scheithauer, Zeissl, and Schenk, none of whom were blessed with wealthy parents, most having risen from the poorest and most needy circumstances. Nor is it otherwise with the well-known clinical professors—Schnitzler, Benedikt, Monti, Winternitz, Oser, and Bandl. In fact, the sons of the wealthy manifest no eagerness to face the discomforts of a medical student's life; and were it not for the sons of poor proprietors, school-masters, and tradesmen, the supply would run short. If the expenses of education have increased too much to admit these, they will have to be lowered by a different mode of payment of the professors; and the present power which the Vienna Medical Faculty has of admitting poor students, under the name of *Berufenen*, is not likely to be abridged.

One of those melancholy deaths which from time to time occur to young practitioners while bestowing their care on the subjects of diphtheria, has just taken place at St. Petersburg. Dr. G. A. Popow, one of the assistant physicians of Prince Peter von Oldenburg's Children's Hospital, while engaged in examining the throat of a bad case of diphtheria, received on his lips and face some of the secretions from the child's mouth. In spite of the most careful cleansing, he was seized next day with shivering and the first symptoms of an attack of diphtheria, which within five days proved fatal.

The entire number of students at the Berlin Universities during the present winter session amounts to 4,635 (as compared with 4,062 last summer session); and exceeds the number entered at Leipzig (3443), which, for several years past, has been a formidable rival to Berlin. The students belonging to the Medical Faculty amount to 898 matriculated students (774 in the summer session), to whom must be added 228 pupils of the Military Medical Institutions. So large an attendance of students has never been known at Berlin, and the unexpected number has taxed the hitherto sufficient space in the Anatomical Institute, as it has also the supply of bodies for dissection, especially as at this period a large number are required for the State examinations.

Dr. Koch has sent in a further report of the proceedings of the Commission of which he is the leader, dated Calcutta, December 16th. He states that he and his colleagues have been provided with every facility for following out their investigations in the Medical College Hospital at Calcutta, and he details the experiments which he is about to undertake towards the elucidation of the question. The next report will presumably contain matter of greater importance.

The numerous accidents which have occurred from football in the United States have induced vigorous action on the part of the authorities of Harvard College. The *Boston Medical Journal* states that Prof. Norton, the chairman of the committee on athletics, has issued a report in which he severely stigmatizes the manner in which football is there played, leading to a "manly if rough sport degenerating into brutal and dangerous contests." According to certain of the rules of the American Intercollegiate Association, it would seem, he says, that a "spirit of fair-play is not expected to govern the conduct of all the players, but that the spirit of sharpers and roughs has to be guarded against." The

Association has consented to modify the rules objected to, the amendments have been approved by the Committee of the Faculty, and the prohibition of the intercollegiate games has thus been averted. The Harvard Faculty has, moreover, appointed a medical director of the gymnasium. It is further under consideration to appoint another officer well acquainted with all athletic games, and having a knowledge of the laws of health, whose rank and remuneration will be equal to those of the instructors of the college. In his hands will be placed what it is hoped will be a wise and temperate control of the active athletic sports. "With the hearty co-operation which should exist between the medical directors of physical culture and the not necessarily medical man who superintends the domain of athletic contests, there should be a maximum of all the good effects of strength-developing sport and a minimum of the overtraining and overstraining that have been the bane of such contests."

In March, 1882, a prize of 1,000 dollars was offered by a benevolent American for the best essay on "the probability of the Discovery of a Cure of Malignant Disease, and the line of study or experimentation likely to bring such a cure to light." Six essays—all in the English language—were sent in, but the judges decided that they were none of them worthy of the prize. We have not heard that another competition has been opened for the thousand dollars, but in any case we fear the prize will go a-begging, like the celebrated French prize for the discovery of a cure for diphtheria.

At the Quarterly Meeting of the Directors of the Naval Medical Supplemental Fund, held on the 8th instant, Sir W. N. E. Smart, K.C.B., M.D., in the chair, the sum of £86 was distributed among the several applicants.

The Parkes Museum, we regret to hear, is much in want of funds, to carry on and extend the valuable work for which it was instituted. In any other country it would be subsidised by the State, but in England such institutions have necessarily to depend largely on the fluctuating support of annual members, and wealthy people are too short-sighted to feel much interest in a project, the benefits of which are not immediately realisable. But the medical profession have not this excuse, and we feel sure that the claims of the Parkes Museum have only to be brought home to them with sufficient insistence, to ensure their support. When the State bestows its titular honours, it takes care that money is forthcoming to back them up, and science, having done its best in Dr. Parkes' case to make up for the neglect of him by the State, should not allow itself to be stultified as a fountain of honour, by letting its peers, so to speak, lapse into paupers.

The useful work which the Museum is doing, in an educational sense, is evident from the valuable lectures already delivered, as well as from the following list of those that are still to be given :—On January 31st, at 5 p.m., Mr. H. A. Darbishire, F.R.I.B.A., the architect to the Peabody trustees, will give an address on the burning question of the day—"Artisans and Labourers' Dwellings;" on Tuesday, February 12th, at 5 p.m., Mr. J. P. Seddon, F.R.I.B.A., will give a lecture on the "Ventilation of Theatres," Mr. George Godwin, F.R.S., will take the chair at this lecture; on Thursday evening, February 28th, at 8 p.m., the question of the "Purification of the Air in Living Rooms and Sick Wards," will be dealt with by Dr. H. C. Bartlett, F.C.S., taking up the question of the general principles involved, while Dr. Richard Neale will give a description of the structure and mode of action of his "Chemical Lung;" on Thursday, March 13th, at 5 p.m., Dr. Henry Veale, Deputy Surgeon-General, whose name is well known in connection with Lord Wolseley's expedition to Egypt, will give a lecture on "The Organization and Management of Field Hospitals;" on Thursday, March 27th, at 8 p.m., Mr. Watson Cheyne will give a practical demonstration of micro-organisms, illustrating his remarks by microscopical preparations and photographs. The final lecture of the session will be delivered on Thursday, April 24th, at 5 p.m., by Dr. John A. Voelcker, of the Laboratory of the Royal Agricultural Society of England, who will take up the subject of milk.

The intimate connection between affections of the eye and the generative organs in women, though on several occasions, of late years, insisted upon by ophthalmic surgeons, has never hitherto been demonstrated in so conclusive a manner as it has been by Mr. Priestley Smith, in the *Ophthalmic Review*. To remove both ovaries and Fallopian tubes from a young married woman is not an operation that should be lightly undertaken, and when it is announced that the operation was performed with a view to prevent the patient from going blind, there are not a few, probably, who would be ready to denounce such a measure as unjustifiable. Yet such is the proceeding described by Mr. Priestley Smith, carried out with entire success up to the time of reporting the case. The facts of the case very briefly were, that the patient, a young married woman, æt. 24, had suddenly and completely lost the sight of the left eye after a fainting seizure dependent upon, or associated with, some uterine or ovarian disorder. On subsequent occasions the right eye was several times rendered temporarily blind after similar attacks, after which the field of vision became permanently and considerably contracted; in the left eye the disc was somewhat white and the arteries much shrunken and mostly empty. The diagnosis of chronic ovaritis was made, and both ovaries and Fallopian tubes were removed and found to be in such a condition as to fully justify their removal. It should be mentioned that all, or nearly all, the fainting attacks were traceable to pain originating in the pelvic viscera. After the operation, the patient's progress was remarkably satisfactory; she ceased to suffer from fainting attacks, and the field of vision with the right eye again became entire. Mr. Priestley Smith puts the sequence of events as follows: Reflex disturbance of the circulation in the brain and retina through cardiac inhibition, great reduction and slowing of the blood stream

in the retinal artery and thrombosis, to which the anæmia and weakness of the heart would predispose, and he enters into a very interesting discussion as to whether the affection was due to thrombosis or embolism, pointing out very clearly the diagnostic points of difference in each condition, and giving what seem to us to be very good reasons for believing that in this case there had been thrombosis rather than embolism.

Mr. Henry E. Armstrong, medical officer of health for Newcastle-upon-Tyne, has issued a report on the increased death-rate of that town. By means of a discussion on the *extrinsic* origin of febrile disease, by essays on the whole subject of sewage disposal, on school hygiene, on ventilation, on warming, on the advantages of the half-time system of education, by digressions, quotations, maxims, truisms, and by the trite commonplaces of the sanitarian, the author has succeeded in expanding matter, which might have advantageously occupied a few pages, into a volume to which we should have been tempted to apply the author's phrase, "confused, vague, and elusive," if it were not for the interesting and instructive facts to be gleaned from the pages and tables by those who have the industry and courage to gather them, and were it not for evidence that Mr. Armstrong is a fearless, a good, and a conscientious officer, who calls a spade a spade, and a disease centre "a fever den," and whom the owners of property daunt so little, that he hesitates not to publish a map, with the dark spots in his district surrounded by coloured borders.

Newcastle-upon-Tyne has a population of 145,369, living in 20,264 houses; of these only 10,750 houses are provided with closets, the remainder use the primitive constructions found by Captain Cook in his first voyage to New Zealand. The middens are calculated to be 20,000 in number, and if united would present an area of 3,200,000 square feet. One hundred and forty-five slaughter-houses, dirty, badly supplied with water, most of them defective in construction, discharge, with few exceptions, their blood and liquid refuse into the sewers; 156 cow-houses in which "a water tap and hose comes as a surprise," and in which "the dung-pits are commonly large and uncovered, so that their already sloppy contents are exposed to the action of sun, rain, and wind," mingle their effluvia with the emanations of 49 pig-sties. Over all floats an atmosphere polluted with smoke from factories, steam-mills, breweries, bakeries, and river steamers. Under these circumstances it is refreshing to find that the Anglo-Saxon is so tenacious of life that the death-rate of Newcastle-upon-Tyne is after all but 23 per thousand; it would have caused no astonishment had the figures been reversed.

The inward rottenness of the prosperous city being thus revealed, the health officer and his committee are losing no time in attempting to remedy the old abuses; a house to house visitation has been initiated, twelve additional inspectors having been appointed for this purpose; and we cordially endorse the recommendations of Mr. Armstrong in the matter of public abattoirs, in the substitution of ash-closets for the old middens in the tenement dwellings, and in the necessity of prompt and immediate action for the suppression of the many-headed filth dragon.

The fact that the authorities of Guy's Hospital have found it advisable, if not necessary, to set apart beds for paying patients, and to extend the system of payment to all out-patients, tells very significantly which way the current is setting, and we may expect that the example of such a solid and time-honoured institution will be followed without long delay by every hospital in the metropolis. No one can object to the universal adoption of this system, except possibly the publicans, whose tills will suffer in proportion as the hospital cash-box gains; but the drink margin of the working classes is in the aggregate so enormous, that the hospitals would be able to take a large bite without seriously diminishing it. Nor is it likely that the medical practioners in the neighbourhood of hospitals will greatly sufler. For though many patients will no doubt seek advice at a paying out-patients' department, who would have been deterred by the scramble, and the idea of accepting charity, involved in attendance at a free hospital; yet, on the other hand, there are many patients so curiously constituted, that the chief attraction to them, of hospital treatment, is its gratuitous character. These and many others, when they find that they cannot visit a hospital without putting their hands in their pockets, will, no doubt, prefer recourse to the practitioner, whose surgery is open at all hours, and whose fee is not so very much in excess of the pence demanded of them at the hospital. But the chief advantage of a universal system of paying out-patient departments, would be that it would, for the first time, render possible the establishment of a sound provident dispensary system, which is, no doubt, the coming system of lower class medical relief.

A paradoxical case is reported from Dublin. A police sergeant, who had been trained under the St. John Ambulance Society, found in the street a woman who had fallen and broken her right leg. He immediately set to work to construct a temporary splint out of two batons and his duty bands, and removed her to the hospital. Batons are, no doubt, more usefully employed in binding of broken bones than in breaking sound ones, and the same modification of function might advantageously be extended to the shillelagh.

A report has been in circulation that the police, foiled in their attempts to solve the Stoke Newington mystery, have definitely come to the conclusion that the deceased was not murdered, but committed suicide. It is said that they have become cognisant of certain facts in Tower's life which support the theory of suicide, and that Mr. Bond's positive statement that the case was one of homicide has been severely criticised by "several prominent members of the medical profession." The report has been contradicted, and it bears upon it evident signs of improbability. No member of the profession, we imagine, would be bold enough to come forward as an antagonist to Mr. Bond on the

ground which he has specially made his own, and certainly not without having had as good an opportunity of studying the post-mortem appearances of the case as Mr. Bond has. The theory of suicide, said to be started by the police authorities, involves a slur, not only on the deceased, but on one of their own surgeons.

Fortunately the "Mysterious Case of Poisoning," chronicled in the papers this week, has for mystery only the questions of how and why the poison was employed. The public mind is spared the shock of discovering that some new poison exists, which can be detected only by physiological tests. Whether or not the deceased intentionally took the arsenic does not appear in evidence; all that is certain being the fact of death preceded by symptoms of irritant poisoning, and the detection of arsenic after death.

On Friday the 18th instant, the Thames police magistrate had before him what the *Daily Telegraph* rightly characterises as a "shocking case." A man, whose daughter lay ill with small-pox, and was about to be taken to hospital, was warned by the police inspector not to remove anything from his house or shop. The next morning the inspector found that a large stock of newspapers, which had been only a few yards from the daughter's couch, had been removed in the interval, and a vacant room had been let to a woman with four children. For thus running his head against the law the defendant was fined five pounds, and locked up in default of payment.

Our brethren in Napier, New Zealand, have lately been monopolising the attention of the Chief Justice and a jury of four, in the supreme court for a couple of days. A young woman brought an action against a practitioner for unskilful and negligent treatment. He had attended her for fractured leg during three months, and she had consulted him afterwards, at intervals, for a year from the time of the accident, when being still unable to walk, she went into the hospital, where an ununited fracture of the fibula was recognised, and the ends of the bone were removed with a good result. The tibia had united satisfactorily. The defendant argued that the fracture of the fibula must have taken place subsequent to his treatment of the case; and four medical men gave evidence that the treatment that had been adopted had been what was right and proper, though they could not agree with the defendant that the fibula had not been broken at the time of the original accident. In the end the jury found for the plaintiff, awarding her £175, or rather more than half what she asked for. We fancy that our own hospitals would furnish material for a good deal of this sort of litigation, if the physicians and surgeons lent their countenance to it.

In a short retrospect on the health of the Borough of Huddersfield during the year 1882, Dr. J. Spottiswoode Cameron, the medical officer of health for that locality, has published the result of his observations on the mortality amongst young children in this district, which, for the period under notice, was considerably above the average of the previous five years. During the greater part of 1882, Huddersfield suffered from an epidemic of measles, and this was followed by an unusually high mortality among young children; the rapid spread of this epidemic coincided, Dr. Cameron points out, with a somewhat high barometric pressure, an increasing temperature, a considerable variation of day and night temperature, and a scarcity of rain. It appeared to him that the poison of measles, which had been present in a less amount earlier, was prevented, by the heavy atmosphere and the absence of wind during some weeks, from getting freely away from the close courts and yards in which so many of the patients lived. The air in these courts lacked the wholesome washing of the rain, and the poison, instead of being carried away down the drains, or driven away by the winds, was kept active by the warmth of the day, slightly condensed by the chill of the night, and so spread rapidly amongst those susceptible to its influence. Again, whooping-cough, like measles, affected chiefly the very young children; it was specially fatal in the first quarter of 1882, but gradually disappeared later on. It is only fair to add, that the death-rate of Huddersfield differed only by a decimal point from the average death-rate of the twenty-eight large English towns during 1882, and Dr. Cameron is hopeful of securing a higher position for his borough in the relative table of succeeding years.

As Emeritus Professor of Clinical Surgery to the London Hospital Medical College, Mr. Jonathan Hutchinson, F.R.S., will deliver a course of six lectures in the anatomical theatre of the college, at 2.45 p.m., on Wednesdays and Fridays in the first three weeks in February, beginning on the 6th.

The first thing that the Romans did, when a place which had an unfortunate name came into their possession, was to give it a good one, in order that the deities might no more be prejudiced against it. The authorities of Exeter, as those who live n that ancient city are aware, have imitated this excellent custom, and with the view of removing local predispositions, have euphemistically called their Fever hospital the "Exeter Sanatorium." When a dog, however, has a bad name, it is said to be waste of time to give him a better one, and it is to be feared that the same may apply to a locality or institution. The air of Maleventum did not probably become more fragrant when its name was changed to Beneventum, or if it did, this example of easy sanitary reform has certainly been lost on modern Italian cities. And we do not suppose that the Exeter Sanatorium will be any the less shunned by the ill-instructed populace than it would have been if it had borne the name of Fever hospital. "Hospital" is in itself a word of noble descent and connections, but there is none in the vocabulary more generally detested by the lower orders. And the Exeter authorities will be fortunate if their new word escapes the ruin in character, which is the lot of most words originally used as euphemisms.

The institution in question has been fairly active during the past year, as its promptly-published report testifies. Eighty-one cases of zymotic disease were under treatment during 1883, of which six proved fatal, four from typhoid, one from diphtheria, and one from small-pox. The total number of cases of typhoid treated was 28, so that the mortality was 14·3 per cent. Of the twenty-five cases of scarlet fever not one proved fatal. Of the twelve small-pox cases none had been re-vaccinated, but ten had marks of primary vaccination. Two had no marks, and of these one died. The report states that the Sanatorium is becoming more widely appreciated in the country districts, as evinced by the large increase of cases from that source. The value of such an institution is out of all proportion to the actual work done in it, for every case timeously removed to it, like the proverbial stitch, saves the nine which probably would otherwise have to be treated outside. The Sanatorium no doubt materially diminishes the duties of Dr. Woodman, the energetic officer of health for Exeter.

The eighth annual report of Dr. Stevenson to the Paddington Vestry on the health of the locality for the year 1882, contains nothing which can be classed as of more than average importance. Dr. Stevenson is apparently content to record the usual statistics, leaving the figures to speak for themselves. We find, therefore, that during the year under notice, 2,904 births and 1,948 deaths were registered in this parish, giving a ratio of 26·8 per 1,000 for the former, and 16·3 for the latter; with the exception of the two preceding years, when the death-rate was 15·7, the rate of mortality is less than that recorded in many previous years. The most fatal of the zymotic diseases proved to be measles and whooping cough, whilst the mortality from scarlet fever was less than in any one of the eight preceding years. No death occurred from small-pox, and only six cases of this disease came to the notice of the authorities during the whole twelve months. The mortality from typhus, and from other, or ill-defined forms of continued fever, was far below the average, and, owing to the temperate character of the summer, the deaths from diarrhœa only numbered 44. We may take it, from these few facts, that the sanitary condition of the parish of Paddington during the year under notice was satisfactory, and nothing exceptional occurred calling for any special comment.

On Saturday last, William Wallis, herbalist, was committed for trial on a charge of manslaughter, by administering lobelia as a medicine for a chest complaint. More than twenty years ago another herbalist, by the same insane method of treatment, all but succeeded in cutting off twenty years of a life which England could ill have spared. In his delightful biography of the late Professor Palmer, Mr. Besant tells us that, when Palmer was a young man of nineteen, he was seized with symptoms of consumption, and his case was declared hopeless. Given over by the faculty, he was persuaded to follow the treatment recommended by a Cambridge herbalist, which consisted in taking a single very strong dose of lobelia. The result was that he "was first seized with a violent attack of vomiting, then a cold chill laid hold of his feet and slowly mounted upwards; it froze his limbs, which he could no longer move, and struck his heart, which ceased to beat (?), and his throat, which ceased to breathe. They had sent for a doctor by this time. 'I felt myself,' he said, describing this experience—'I felt myself dying; I was being killed by this dreadful cold spreading all over me. I was quite certain that my last moments had arrived. . . I saw the doctor feeling a pulseless wrist, watch in hand; the cold dews of death were on my forehead; the cold hand of death was on my limbs. Up to my lips, but no higher, I thought I was actually dead, and could see and hear, but not speak, not even when the doctor let my hand fall upon the pillow, and said solemnly, 'He is gone!'" He recovered, however, not only from the poison, but from the disease, and to the end of his life the "lobelia cure" had in him a firm believer. Professor Palmer is admitted by all who knew him to have been of a highly nervous temperament, and it would be difficult to say how much of his apparent death was due to lobelia and how much to "nerves."

A very careful and interesting health report is that for the Borough of Birkenhead for the year 1882, compiled by Mr. Francis Vacher. The district in question has now been for some time under the watchful supervision of its present health officer, and it is certainly not too much to say that its improved sanitary condition is mainly the result of his exertions. The number of births registered in Birkenhead during 1882 does not compare unfavourably with the number recorded in recent years; but the decrease in the mortality, which was maintained from 1878 to 1881, was not continued. Nevertheless, Birkenhead, which was last year included by the Registrar-General for the first time in the list of the great towns of England, will be found, Mr. Vacher shows, to be the highest but ten as regards its birth-rate, and the lowest but three as regards its mortality. Of the 1,718 deaths from specified causes registered in the borough during 1882, 319 were ascribed to zymotic diseases; but it is a source of satisfaction, the report adds, to be able to record that another year has passed without any fatality from small-pox, an exemption which has been maintained since 1877, the year when the disease was epidemic in the locality. Indeed, so far as the sanitary authority have been able to ascertain, there has not even been a case of small-pox in the borough during the past year. Birkenhead obtained an Act for the compulsorily notification of infectious diseases in 1881, and, according to the report, the working of this piece of legislation during the year under review has been satisfactory; 962 cases were notified by medical practitioners, and 25 by the school attendance officers, the occupiers of houses, the relieving officer, the inspectors, and, in a very few instances, by the registrars.

On Monday night a complimentary dinner was given to Professor Sir Richard Owen, K.C.B., by his late colleagues in the service of the British Museum In returning thanks for the toast in his honour, Sir

Richard Owen spoke of his labours at the Royal College of Surgeons, and expressed gratification that in the course of his duties there he had been able to extend the usefulness of the Hunterian collection, partly by valuable additions, and partly by the lectures he had annually delivered.

The late Sir Wm. Siemens has bequeathed £2,000 to the German Hospital at Dalston, and £1,000 to the Tunbridge Wells Infirmary.

Dr. F. W. Barry has contributed to the Local Government Board a complete sanitary history of the Tynemouth districts, both urban and rural, and has supplemented the same by a series of reports—nine in number—on the urban districts immediately adjoining. The information thus acquired, shows the sanitary—or perhaps it would be more correct to say the insanitary—condition of that particular locality, and, without considering each of these nine reports separately, it will be sufficient to observe that the defects existing in one district were conspicuous in all the others. The uncovered midden privy constitutes the usual form of closet accommodation, and this is generally so constructed and managed as to give rise to very considerable nuisance, both in storing and removing excrement. Dr. Barry has noted, in two or three cases, the ridiculous arrangements made by the sanitary authorities with their health officers; in the Howdon Urban District, the medical officer of health receives a salary of £7 10*s.* per annum. He lives twenty-six miles from the scene of his supposed labours, but reports monthly as to any cases of infectious disease which may have occurred; as, however, there is no provision in this district for isolation of patients, or disinfection of infected articles, it is impossible for him, the report remarks, to take any effective action for limiting the spread of epidemics when they occur. A still more remarkable course is that pursued in the Whitley and Monkseaton district; in this case, the medical officer receives an annual retaining fee of three guineas, with an additional fee when called in; but, up to the present time, there has been no demand for his services. He receives no returns from the Registrar of Births and Deaths; has never officially inspected his district, or attended a Board meeting, or made a report. Dr. Barry has spent an immense amount of valuable time in examining into and exposing the shortcomings of the Tynemouth neighbourhood; but this in itself is of small advantage, unless some power existed to compel the different authorities to carry out his judicious recommendations.

PATHOLOGICAL EXPERTS.

The whole subject of the existence, efficacy, machinery, and mode of proceedure of the coroner's court has been so constantly under discussion, that we may justly assume it to be a question in which no little interest centres. The matter is in fact one in which medical men have a very real and personal concern. It is upon their dicta, as a rule, that the whole decision and verdict must hang. Many have come to the apparently logical conclusion that the office of coroner is one which ought to be held by medical men, since they alone are able to weigh the value of the technical issues which are placed before the jury. It is not our present purpose to discourse upon this head, nor even to join issue with the *Boston Medical and Surgical Journal*, which, not so long ago, tersely disposed of the question by decreeing that "the coroners must go." Our object is to bring before our readers the necessity which exists that the coroner's court, as at present constituted, should be assisted in its deliberations, in every case of enquiry as to the cause of death, by the trained evidence of skilled pathological experts. As matters are now arranged, it is well known that any local medical man may be both summoned by the coroner to give evidence, and ordered by him to perform, and report upon, a post-mortem examination of the deceased. We do not believe that the ends of justice are furthered to the best advantage by this means; we believe, in fact, that it is opposed to the true interests both of the public and of the profession. With all, the sole desire in the matter must be the elucidation of the truth, and we think that professional opinion is now ripe to admit that neither the public interest, nor our knowledge of morbid anatomy, is furthered to the greatest possible extent by the present method. A lurid light is thrown from time to time upon the whole subject of medico-legal investigation by such crucial cases as that which was lately the subject of such prolonged consideration at Liverpool—cases in which the whole possibility of the discovery of the truth turns upon the skill with which the post-mortem investigations are conducted. In the interests of all, then, we maintain that, in these days of specialism, a distinct specialty ought to be made both in town and country of the conduct of medico-legal post-mortem examinations.

It must be sufficiently obvious to any one who understands the subject, that a very practised and special skill is requisite for the discovery of an unknown cause of death by the autopsy alone. Few medical students have had time, opportunity, or inclination for the attainment of such skill, and fewer still have had chances (after entering the vortex of active professional life) of keeping up and improving such practical pathological knowledge as they may have obtained in the post-mortem room of their hospital-school. It is of course the fact that in a large proportion of those cases in which a post-mortem examination is ordered, the death is, as a fact, due to natural causes, or to the undoubted effects of some accident. In most of these cases the post-mortem researches and conclusions are directed and influenced by obvious facts which concern the life and mode of death of the deceased. It is not in these cases, perhaps, that the result of unskilled examination is of most serious import. The truth in such cases is probably determined with sufficient accuracy, and the medical witness is able to satisfy himself, the jury, and the public, that the morbid changes which he has discovered are in fact enough to account for the death under consideration. Even in these cases, however, the ends of science are but poorly served by the hasty and general conclusions too often arrived at. The post-mortem examination should be not only a thorough clearing up of the cause of death, but a definite scientific contribution to our store of pathological facts. Too often, we fear, it is of no such

value. The examination is performed by a man skilled indeed in the practical exercise of the healing art, but with no special aptitude for noting the minute and often obscure evidences of disease in the dead subject. It is performed by him often under great disadvantages, unwillingly, inconveniently, not awkwardly or perfunctorily, but at least without any special desire in the matter except to discover a sufficiently valid cause of death in the shortest possible time. The evidence of the medical witness does occasionally convey this impression, if not to the public, at least to the professional observer. What proportion of practising medical men, may we ask, are able to examine critically the brain in the recently dead subject—its convolutions, sinuses, and centres being all passed under review—so as to determine the absence or presence of extravasation, embolism, or thrombosis, as a cause of sudden death? The vague and inadequate causes of death sometimes registered are too often unsatisfactory to any skilled on-looker. Thus Niemeyer naïvely writes, with reference to the frequency with which post-mortem "congestions" and "engorgements" are described, that "one would conclude from some of these observers, that the body actually contained more blood after death than it had done before." Thus, while we do not assert that the cause of justice and of scientific truth is, as a matter of fact, often mis-served by the present process, we do believe that there is a constant possibility that it may be so mis-served, and certain cases which from time to time throw light upon this unsatisfactory subject would lead us to suppose that the actual cause of death does, every now and then, elude the research and skill commanded under the present system. Sure we are that a very special, well trained, and well-sustained skill is required for the due intelligent performance of post-mortem examinations, and for basing what may well be most important conclusions upon their results.

We have said that the present system is opposed to the best interests, not only of the public, but of the medical profession itself. And in this we think the majority of thoughtful general practitioners will agree with us. They are willing enough to admit that their skill and experience do not tend to the most effectual performance of medico-legal autopsies. They are, of course, ready and eager to take every opportunity of improving their acquaintance with the processes of disease and death. But they are ready also to allow that, for the furtherance of pathological exactitude, it would be better that the bodies of persons who have died under suspicious circumstances, or who have not been seen during illness by any qualified medical man, should be examined by some skilled expert. Such an expert would assuredly perform the examination with more ease, more confidence, and more scientific accuracy in result than they, amid the duties of active professional life, can aspire to. We have so often heard medical men complain that the performance of a post-mortem examination, by the coroner's order, is "the hardest work for a guinea" that they are ever called upon to perform, that we think there are few who would not be willing to hand the task over to a skilled authority. It is certainly no facile or pleasing task for a general practitioner to perform, single-handed it may be, and in the depth of the country—with no help or conveniences worth mentioning, at the sacrifice of valuable time, and to the detriment of his legitimate course of work—a post-mortem examination of a body unknown. For this examination but little credit can be obtained if successfully and honestly conducted, and much of opprobrium and discredit should the cause of death, so hardly sought, be misstated, or elude his observation. It is true that in cases of poisoning, actual or suspected, it is the recognised custom to have the requisite analysis made by a skilled chemist. We of course cordially approve such precaution, and only contend that the ends of public justice and pathological knowledge would be better served if the whole examination and research for the cause of death—natural, accidental, criminal, or suicidal—were made by a trained and well-practised expert. We have observed above that the legitimate course of work of the practitioner is interfered with by the present method, and in this we refer not only to the necessary loss of time, but to the actual danger which may accrue, for instance, to the lying-in patients of the busy general practitioner when he is ordered, without respect to his convenience or their safety, to perform a post-mortem examination, from which septic and lethal infection may well be conveyed to the bedside of the unsuspecting patient.

What, then, do we recommend as a cure for a state of affairs which we believe to be so unsatisfactory? It seems to us that the problem is capable of a tolerably easy solution. The whole difficulty would be met by the appointment, in every coroner's district, of one or more experts, of proved and well-authenticated skill, by whom all post-mortem examinations, made under coroner's order, should be conducted. The payment of these experts might be by fees or by salary, but should be sufficient to act as an attraction to men who would thus abstain from general practice, and devote themselves to the scientific branches of their profession. It is probable that in many districts it might be found well to unite the duties of medical officer of health, public analyst, and public pathologist in one and the same highly educated specialist. We can call to mind, at once, several cases in which the medical officer of health of a district is distinctly and obviously qualified, as a man of the requisite knowledge and skill, and having both time and inclination so to add to his duties. The practitioner's evidence would, of course, in many cases, still be forthcoming, and his knowledge of the previous history or illness of the diseased would be often a valuable contribution. But the actual post-mortem examination, and responsibility for its accuracy and completeness, would be the part of the public officer, and to him both the public and the profession would look for the advancement of truth and knowledge. In thus placing this subject briefly before our professional readers, we have little fear that men of weight or culture will disagree with us. At any rate, we may confidently predict that, as reforms, social and medical, become (with revolving years and the growth of a more thoughtful and practical generation) matters not only of theory but of accomplished fact, this office of pathological expert will be one as to which a future age will wonder only how we did so long without it.

THE CASEBOOK IN THE FAMILY.

It will be a matter for surprise if the alert and imaginative alarmist, who from time to time startles us in the pages of the *Lancet*, does not discover that Mr. Galton, in publishing his "Life History Album," is preparing a new peril for the British infant. We shall probably be asked whether we are not satisfied with ruining our children, when grown up, with plays, masquerades, and pantomimes at home, and with preposterous exercises and examinations at school, that we must needs invade the nursery, and rob them of the few short years of happy objectivity that are still left them. Half the unhappiness, and much of the insanity, in the world, we shall be told, is caused by people thinking about themselves, and to begin to turn a child's attention upon himself from the very moment when he first "learns the use of 'I' and 'me,'" to weigh him, to measure him, to test his senses, his strength, his intelligence, and his artistic capacity, to be ever on the watch to record his slightest peculiarities and symptoms—that we shall be told, is the very way to turn him either into a lunatic or a hypochondriac. There would, it is true, be some slight foundation for such a protest. The children of the present generation are no doubt given a fictitious sense of their own importance by the indulgences of home and the competitions of the schoolroom, and their egoism will not be diminished by their having their cases taken from time to time in the methodical way demanded by Mr. Galton and the collective investigation committee of the British Medical Association. But the effect on a child of such a systematized watchfulness will depend entirely on the good sense of the parent. A sensible mother—for it is amongst women no doubt that Mr. Galton will find his chief allies—would of her own initiative keep her children as ignorant as possible of the observations being made upon them until the time came for them to take their casebooks under their own charge. As, however, it will probably be the foolish and over anxious mothers who will most readily take up with this new idea, we should like to have seen a special caution as to the inadvisability of drawing children's attention to themselves, placed prominently in the preface to each volume.

With this proviso, the usefulness of Mr. Galton's book is beyond all question. We are a little doubtful as to the possibility of working out any reliable scientific generalizations from the mass of records with which he will be flooded. They will probably at best merely suggest hypotheses, for subsequent careful investigation. The faculty of accurate observation is so rare, and it is given to so few untrained observers to be able to disentangle their inferences from their facts, that we should imagine that the large majority of Mr. Galton's data will be absolutely untrustworthy. Still there are certain advantages connected with his proposal, entirely apart from its scientific promise. The album will be a valuable means of education to everyone who undertakes to use it. There is no means of self-culture at once so useful and so neglected as that of recording observations. The part of the medical student's training which is most beneficial to him, and which serves most to differentiate him from all individuals taught in other ways, is his course of case-taking in the hospital wards and post-mortem room. The only way by which most men can learn to register impressions correctly in the brain, is by making a practice of registering them on paper. Observers not trained in this way are for the most part inaccurate, slovenly, and incomplete observers. Physicians find that even their best clinical clerks can seldom keep the record of a case from first to last in such a way that their notes shall present a satisfactory picture of the case in a scientific point of view; and where a clerk, with his special training, fails, it is hardly to be expected that the average British mother and father will succeed, however conscientious their endeavours. Still, whatever be the value of such records, in a scientific light, there is no doubt that Mr. Galton has provided, for those who undertake to follow his plan, a means of education which they could gain in no other possible way. For this purpose, and for this alone, we think the introduction of the casebook into the family worthy of every encouragement from the medical profession. Individually the doctor may now and then find the record kept by his patient of use to him, especially if the details of previous illness have been inserted by another medical practitioner, but it is, after all, only in a small proportion of illnesses that the previous history of the patient is of supreme importance.

RECENT DISCOVERIES IN THE TREATMENT OF THE INSANE.

The lunatics of Central Kentucky have reason to be thankful that they were born in the nineteenth century and in an age of humanity, and not in the dark ages, before mercy and humanity had forced their bright way into the madhouse and the jail. The Superintendent of the Central Kentucky Asylum is a man of vigorous benevolence. He desires to say to the Board of Commissioners and to the public, that whenever an act even approaching cruelty has been detected by him, or reported to him, and it has been found to be well founded, the perpetrator of it has not been allowed to remain in the asylum one single hour. This is as it should be; there would seem to be no need for a Board of Commissioners to check the practice of an asylum that is managed on this principle, and where such Draconian severity is enforced against rough attendants. Nevertheless the Commissioners have certainly done a service to the community by showing, on the authority of this humane and benevolent superintendent, what practices are not cruel—do not even approach cruelty—and are not only legitimate, but absolutely necessary for the treatment of the insane. One of these practices is "ducking." As ducking is unknown in this country, our superintendents will doubtless be glad to be told how to perform an operation without which "it is utterly impossible to conduct an insane asylum . . . unless you get an attendant for every patient." The operation of ducking possesses all the simplicity that characterises the conceptions of true genius. Every one, when he hears it, will wonder that it never occurred to him before. It consists in strapping the hands of the patient behind him, tying towels

around his feet, placing him in a bath, "generally" on his back, and holding his head under water until he "signifies" that he will behave himself. Simple as the operation is, certain precautions must be taken, in order to ensure success. It is not sufficient merely to push the head under water; it must be held under. The precise duration of this part of the operation is not stated, and would seem to be immaterial so long as it is not too short. Unfortunately human nature is imperfect, and even in an asylum where the perpetrator of an act even approaching cruelty is liable to instant dismissal, black sheep will steal in sometimes; and it is therefore not surprising, although it is very depressing, to hear that even so mild a remedy as ducking is, like every thing else, liable to abuse; but it is encouraging to know, that in spite of this remote liability, the bathing of patients in this way is, when properly administered, "very beneficial to them." In spite of its ingenuity and thoroughness, ducking does sometimes fail; but even then we are at no loss for remedies. The resources of the Central Kentucky Asylum are far from being exhausted. We have still the towel bath at our disposal. Again we fear the conservative and unenterprising spirit of the English medical superintendents has kept them in ignorance of a remedy even simpler and more easily applied than ducking, and, it appears, still more efficacious. The towel bath is simplicity itself. "It is nothing more than confining the hands of the patient, and the feet, to keep them from kicking or striking the patient or patients assisting. A towel is dipped into water and laid over the face." Mark the striking and unlooked effect. "*It produces a sense of suffocation.*" Herein lies its efficacy. When this effect is produced, "the patient soon gives up, and is tractable." This mode of treatment has so many advantages that they are not all obvious at once. It would be tedious to enumerate them all, but we may point out the most salient, which is its economy. The Central Kentucky Asylum is entitled to the entire and unquestioned credit of introducing a method of treating lunatics by having them half suffocated by their fellow-lunatics. The treatment is as economical as it is ingenious, dispensing in the first place with the cost of attendants, and doubtless, if it is carried out thoroughly and continued long enough, with the cost of keeping patients also. These two methods of treatment are alone enough to secure the reputation of any institution, and to immortalise their originator, but they are not the only benefits that suffering humanity owes to the Central Kentucky Asylum. Strange to say, ducking and the towel bath sometimes fail to quiet the patients, and in such cases the obdurate lunatic is placed in a wire cage, which is also used for a bed—in other words, he is kept in it all night. It is sad to have to record that the proverbial ingratitude of paupers should characterise also the inmates of lunatic asylums. One of these degraded creatures, named Jansen, had the effrontery to die under this system of treatment, and an inquiry by the Commissioners in Lunacy enabled the enlightened superintendent to secure a wide publicity for his views on the treatment of the insane and the practical advantages of his methods. The public press of America does not appear to be favourably impressed by the new knowledge that they have gained as to the care and treatment of the stricken brethren in the Central Kentucky Asylum. Unfavourable and even severe comments have been passed upon the institution; but doubtless the superintendent is aware that every great innovator has to live down calumny, and that the public is proverbially unfair, fickle, prejudiced and impulsive in its approval and condemnation of men. Let us hope that the whole management of the asylum will be thoroughly investigated before some impartial tribunal, and that a just and condign punishment will fall upon those who have deserved it. One name will immediately occur to all our readers as that of the fittest person to preside on the occasion—the name of Mr. Justice Lynch.

REVIEWS AND NOTICES OF BOOKS.

CHARPENTIER'S MIDWIFERY.[1]

From the point of view of the fully-occupied general practitioner, there are no books so important and so valuable as systematic treatises which cover the whole of the subject with which they deal. It is impossible for any one at once to carry on a large practice and to read every monograph which appears: and, consequently, the busy medical man who wishes to use his spare moments to the greatest advantage in keeping himself abreast of the progress of our art, can do so best through the medium of books in which the new knowledge which is constantly being added from the most diverse quarters to the common stock, is condensed into the smallest compass; and in which, within the covers of one treatise, he can be sure of finding some information for his guidance on every part of the subject. Although to English medical men English books are the most immediately useful, yet translations of good foreign books so readily find publishers and purchasers, that the appearance of a complete treatise on any branch of medicine, though in a foreign language, is an event calling for notice. We think these considerations a sufficient reason for noticing somewhat fully the second volume of "Charpentier's Treatise on Midwifery," the first volume of which we reviewed some time since. We then expressed our opinion as to its general character and its special excellences. The second volume, which we now consider, is divided into three books. The first treats of dystocia, the second of the obstetrical operations, and the third of the pathology of the puerperal state.

The causes of dystocia are divided into the usual two classes—maternal and fœtal. In the exposition of maternal dystocia, the anomalies of uterine contraction are first considered, in a chapter which is short, containing only twelve pages, and one of the weakest in the book. The distinctive features of different forms of failure of uterine power are not at all clearly described. The material for the chapter does not seem drawn from original

[1] *Traité pratique des Accouchements*, par le Dr. A. Charpentier, Professeur agrégé à la faculté de Médecine de Paris, ex-chef de clinique d'accouchements de la faculté. Tome second. Paris, J. B. Baillière et fils. 1883. P. 994.

A Practical Treatise on Midwifery. By Dr. A. Charpentier, &c.

clinical observation: it rather appears as if the author had read various papers on the subject, not very well selected, and mixed together digests of their contents, not always in quantity proportioned to their relative importance. Some statements are so incorrect, that it is manifest that the author has not thought about them: *e.g.*, we are told that excessive energy of uterine contractions may produce prolapsus (p. 4). We know that the action of the abdominal muscles, which is so powerful an auxiliary during the second stage of labour, may force down the uterus; but how the contraction of the uterus itself can produce prolapsus, we cannot imagine. The anomalies of contraction of the abdominal muscles are considered, or rather mentioned, together with fractures of the sternum and subcutaneous emphysema, in a brief chapter which follows. We then come to the important subject of pelvic deformity, to which 200 pages are devoted. Much labour has been bestowed upon this section of the work. Each of the different forms of abdominal pelvis is described in detail, both in its anatomical and clinical aspect. The views of different authors as to the production and classification of deformed pelves are quoted, and copious references given to specimens and descriptions. The chapter is in fact a most useful epitome of the literature of the subject, the fullest, we believe, that any text book on the subject contains. In reading it we are grateful to the author for the trouble he has taken to put us in possession of so much material for our information and guidance, rather than struck with his philosophical insight or comprehensive grasp. It is profusely illustrated, both with drawings of pelves, diagrams, and full-length sketches of patients; but the wood-cuts do not do credit to the engraver, or to the printer, being often blurred and smudgy. Difficulty in labour, due to morbid conditions of the vulva and vagina, is taken next. The causes, prevention, and frequency of rigidity and laceration of the perineum, are considered at great length—at greater length indeed, as it seems to us, than the value of the materials at the author's disposal makes worth while. We have the usual abundance of quotations; but most of them are nothing but expressions of opinion, and therefore scarcely worth citing. Persistence of the hymen, tumours of the vulva and vagina, hernia, prolapsus, are very briefly dismissed. The section on thrombus of the vulva and vagina is well done; and that on vesical calculus complicating labour contains references to a number of cases.

Next in order, we have cases of dystocia, in which the obstacle is situated at the cervix uteri. First comes simple rigidity. This is treated rather briefly: the descriptions of, and distinctions between, its different forms, are not particularly clear; and on the whole it is a somewhat unsatisfactory chapter, not very helpful clinically. Cicatricial obliteration of the cervix is not a subject upon which there is much to be said, but what little there is, is well given here. The complication of pregnancy with cancer is discussed very fully. The author takes a view which we do not think will commend itself to English accoucheurs, or we might indeed say to any who have studied the subject, viz., that on the principle that in this inevitably fatal disease the life of the child is more valuable than that of the mother, no attempt should be made to remove or destroy the new growth during pregnancy, lest that process should be interrupted. Enough cases, we think, have been published, to show that, in cancer of the cervix sufficiently limited in extent to admit of removal, such removal can be done during pregnancy without much risk of causing abortion, and with much benefit to the patient's health, and therefore to the well-being of the fœtus which she carries. The management of pregnancy and labour when complicated with fibroids is considered at great length and in all its aspects, twenty-five pages being devoted to this subject. The subject is one upon which several excellent monographs have been written by Lambert, Lefour, Chahbazian, Champneys, and others, of which Dr. Charpentier has availed himself. He seems to us to place a little too much confidence in the use of the numerical method in elucidating the subject. The dangers of uterine fibroids, both as to kind and amount, and their proper treatment, depend so largely on the size and situation of the new growth, that to group together a number of cases without reference to these points, seems to us a method not likely to lead to sound conclusions. It is impossible, for instance, to lay down general rules as to the preference of forceps or turning in a class of cases like this. The association of ovarian dropsy with pregnancy is also very elaborately gone into. Here again we cannot but doubt if the author's conclusions will be finally accepted. During pregnancy he recommends tapping (quoting Spencer Wells in support of his view), and during labour he dismisses ovariotomy as impracticable. He does not seem to have read Sir Spencer Wells's later writings on the subject—nor to be aware that ovariotomy has been successfully performed during labour. Other pelvic tumours which may complicate labour are merely mentioned, being all included in the remark, that they exert the same influence on labour as ovarian cysts. Surely this hardly applies alike to hydatid tumours, abscess, hæmatocele, osseous growths, vaginal cysts, rectal disease, &c. References are given, however, to published writings on each class of case, so that the reader who is disappointed with Dr. Charpentier's brevity, can learn where to look for fuller information.

The important subject of rupture of the uterus is handled excellently, the facts relating to it being set forth in a clear and orderly manner, and supplemented by copious references to other sources of information. But in this, as in other chapters, the literary industry of the author seems out of proportion to his power of assimilation, criticism, or original observation. Thus among the causes of rupture of the uterus, we find mentioned (p. 324) "uterine obliquities," followed by the qualifying clause "to which the ancients attached exaggerated importance, although their influence may be real." This would have been appropriate and interesting in a foot note, but why insert, on such slender foundation, "uterine obliquities" among the recognised causes of rupture? Again, we find among the causes of this accident, "exaggerated development of the fundus uteri," and references given to several authors. Feeling by no means satisfied of the existence of this alleged "exaggerated development of the fundus uteri," we looked up the references given, and it appeared to us that the clinical phenomena described, and of which

we have quoted the hypothetical explanation, were just those which Bandl has so ably elucidated by anatomical research. As further on, Dr. Charpentier gives an excellent summary of Bandl's contributions to our knowledge, we are surprised that he did not see that Bandl and his predecessors were describing the same thing. Hæmorrhage before, during and after delivery is then considered, but in a somewhat unequal manner. In placenta prævia the use of the tampon finds more favour with Dr. Charpentier than with most English authors. The directions for the treatment of post-partum hæmorrhage, one of the most trying emergencies that the accoucheur has to meet, are not so definite as we should like to see. The use of perchloride of iron, as recommended by Dr. Barnes, our author would reserve as a last resource. He speaks strongly in favour of compression of the abdominal aorta. A page and a half is devoted to the description of an apparatus by Chassagny for plugging the vagina and uterus, which Dr. Charpentier admits is as yet only in the experimental stage: and which we should not expect to get much further. The injection of hot water, a well-known and most useful provocative of uterine contraction, is mentioned only.

We then come to dystocia dependent upon the fœtus, to which branch of the subject 67 pages are devoted. In the treatment of prolapse of the cord, Dr. Charpentier puts much confidence in the instrumental reposition of the prolapsed part, and figures various instruments for accomplishing this end. Manual reposition he thinks is rarely both possible and advisable; for it is necessary, in his opinion, that the os shall be well dilated before the cord can be pushed up so far that it will not come down again, and in these circumstances it is better to turn. The various diseases of the fœtus which by increasing its bulk obstruct delivery, are very fully described and illustrated. In cases of tardy delivery due to occipito-posterior position of the fœtal head, our author strongly recommends the artificial rotation of the occiput forwards with the forceps. We are entirely in accord with him as to the desirability and practicability of this manœuvre; but we are inclined to think that the safer way of doing it is to introduce the whole hand, and thus seize and rotate the head. Pinard's "eutocic belt," an appliance, which, although perhaps not familiar by name to English accoucheurs, will nevertheless be recognised readily enough when seen, is figured, described, and its advantages and drawbacks discussed, the latter, in Dr. Charpentier's opinion, and in ours, preponderating.

The second of the books into which the work is divided, treats of obstetrical operations. The amount of space that we have already given to our notice of this treatise prevents us from referring otherwise than with brevity to the portions of it which we have yet to speak of. The obstetrical operations are described so fully as to make the section devoted to them one of the best parts of the book. The description of the forceps seems to us largely based on the admirable article on it by Tarnier,[1] an article which no writer on the subject can overlook, or, indeed, help making use of. But Dr. Charpentier's chapter is much more than a mere abstract of Tarnier, for it contains, among other things, a criticism of that obstetrician's "axis traction" forceps, an instrument becoming well known in this country chiefly through the eulogies bestowed upon it by Dr. Robert Barnes. Dr. Charpentier is not one of the warmest admirers of this forceps. He thinks it an excellent instrument when the head is in the pelvic cavity; but when the head is above the brim, he prefers the old form, the "classical forceps," to use his own term. References to statistics are given to illustrate both forceps and turning, comprising upwards of 300,000 cases. The different forms of fillet and of the lever are described, and so is the sericeps of Poullet, an instrument which has not yet found its way into practice, nor so far as we know, into a text book, except the present, and we doubt if its position is likely much to alter. Many different instruments for diminishing the size of the child are also figured.

The final section, dealing with the diseases of the puerperal state, is one of the least satisfactory parts of the work. We have not room to criticise it in detail, we will only say, that while the author admits that many different morbid processes are commonly grouped under the one denomination "puerperal fever," he does not seem to us very successful in setting forth clearly the distinctions between these various forms of disease. The brevity of the account given is in striking contrast to the fulness with which the obstetric instruments are described.

Our examination of the second volume leads us to repeat what we said in reviewing the first. Dr. Charpentier's work is one of the greatest value, one which reflects great credit upon him, and which every obstetric teacher should have. Its value is in the extent of the author's literary researches, the completeness with which all varieties of opinion are given, and the copiousness of reference. But it is not remarkable for originality of view, or philosophic grasp of the subject. The material seems too much for the author's power of digestion. It is a book to be referred to, rather than one to enlighten, explain, and guide. But in its own way it is so excellent, that we heartily thank Dr. Charpentier for producing it.

[1] *Dictionnaire (Nouveau) de Médecine et de Chirurgie Pratiques.*

THE HISTORY OF CHOLERA.[1]

WHATEVER views men may hold as to the etiology and spread of cholera, whether they believe it to be due to a specific and material germ or to other causes, external or internal, telluric, atmospheric, or what not, its epidemic character is recognised by all as the most prominent, if not the sole mark by which it is distinguished from those diarrhœal affections, the exciting causes of which are more easily ascertained or indicated, and which are met with in greater or less degree in every place and at all times. Dr. Macpherson, therefore, resolutely refraining from advancing any theory, or even a definition of cholera, sets himself to the task of searching the medical histories of Europe and Asia for

[1] "Annals of Cholera from the earliest period to the year 1817." By JOHN MACPHERSON, M.D. London: H. K. Lewis, 1884, 8vo, pp. 235.

instances in which an epidemic character is ascribed to any form of gastro-intestinal disease. The nomenclature, medical and popular, of the "fluxes" has at all times been confused, sometimes including dysenteries, catarrhs, &c., under one name, at others needlessly multiplying species; but our author follows the example of the College of Physicians, in recognising, besides the "Asiatic," or cholera pestifera, a cholera simplex, which is more than diarrhœa, and differs from the other only in not being epidemic.

The rice water evacuations, cramps, suppression of urine, cold sweats, and other phenomena of the algid stage, are graphically described by several of the oldest writers, as Aretæus and Cælius Aurelianus; but before the sixteenth century it is only Paulus Ægineta who speaks of an epidemic colic, and its choleraic character is doubtful. Epidemics, marked by stercoraceous vomiting, and bloody stools, or in which rational treatment saved 90 per cent., could not have been the cholera in question; on the other hand, nearly all the symptoms of genuine may be present in cases of bowel disorder, directly due to improper food or drink, and when such insanitary conditions are well nigh universal, the effects, through not strictly epidemic, will be equally wide spread. The dispute as to the treatment, whether by sedatives, purgatives, or diluents, is as old as the name, which, derived from χολὴ or χόλος, denotes any violent disturbance of the digestion, though not necessarily attended by purging, bilious or other, for Hippocrates himself describes a χολέρα ξηρὰ, the cholera sicca of later writers, a colic or ileus.

Although in the sixteenth century bowel complaints, with vomiting, become an important feature in the bills of mortality of London and European cities, the first unequivocal accounts of epidemic cholera are those given in 1643 by the Belgian physician, Van der Heyden, and by his contemporaies, Rivierus and Sydenham. The former remarked that those cases were most fatal which could not be traced to the diet, and the latter, that it differed *toto cœlo* from autumnal diarrhœa. Van Swieten and Willis are equally clear, but during the eighteenth century cholera seems to have produced no very great mortality in Europe, and to have attracted less attention than before or since. But from the first settlement at Goa, early in the sixteenth century, Portuguese, Dutch, French, and English alike were amazed at the virulence of the disease as they saw it in India, and the occurrence of death within a few hours of the attack. At Goa, in 1543, it spared neither man nor beast, and no cause could be assigned for it. During the 17th century we hear of cholera in every part of the East, from Zanzibar to Japan, and so on through the next, though a lull seems to have taken place at the beginning of the present. The outbreak at the fair or pilgrimage of Hurdwar, in 1783, though of short duration, excited much interest at the time, as having been the first appearance of cholera in an epidemic form so far north: but with cholera endemic in Malabar for at least 300 years, and epidemic at one time or another in every province, and knowing that in 1817 it approached Calcutta from Patna Sylhet and Kishnagur, it is incomprehensible how anyone, except the Frenchman who traced the cause of cholera itself to the "cerebral deterioration of the Hindoo consequent on English rule," could seek its origin in the Delta of the Ganges.

Three appendices are attached, one of which on "the analogies of cholera nostras and cholera Indica," is remarkably dispassionate. He shows that the differences are of degree only, not of kind, and that after all that may be urged, it is as impossible to draw a line between them as it is between the mildest and the severest forms of scarlatina or small-pox. Yet the cases are not quite parallel, for while the individual cases of these diseases which make up an epidemic present every possible degree of severity, the worst cases of cholera nostras retain their isolated and sporadic character. Recent events in Egypt have given a fresh interest, scientific, practical, and even political, to this question, and there is no doubt that those who do, and those who do not, believe in the unity or duality, the spontaneous origin and the communicability of cholera, will each and all have ere long to modify their views. The present work not only fills a gap, left alike by Scoutetten and the American report of 1875, but is distinguished from all previous attempts in the same field by the entire absence of any theory as to the etiology or pathology of the disease.

Life History Album; prepared by direction of the Collective Investigation Committee of the British Medical Association. Edited by FRANCIS GALTON, F.R.S.

Record of Family Faculties; by FRANCIS GALTON, F.R.S. London: Macmillan and Co., 1884.

These volumes, by means of which Mr. Galton hopes to obtain data for working out the subject of heredity, are at length in the public's hands, and many no doubt are already engaged in entering their own pecularities and those of their children, as well as their sisters, cousins, and aunts, in the blank forms thus provided. The two books, though their final cause is the same, are worked on a different plan. The "Record of Family Faculties," which will no doubt find the most ready sale, as there is money to be made out of it, is intended for statistics of one's immediate ancestry. The scheme has been well thought out, and, apart from the prospect of a prize, the mere filling in of the records will no doubt afford interest and amusement to many hundreds of competitors. The only fear is, that those who are best fitted to send in accurate and trustworthy returns will be just those who have the least time to make those researches which will be necessary for success. On the project involved in the "Life History Album," we have commented sufficiently in another column. It will be enough to say here, that the forms are admirably adapted for the purpose in view.

Elements of Pharmacy, Materia Medica and Therapeutics; by WILLIAM WHITLA, M.D. (Q.U I.) Second Edition. Renshaw, 1884, pp. 602.—Originally published little more than two years ago, and already needing a second edition, this book requires little praise to commend it. Dr. Whitla has divided his subject into three portions, as indicated on the title page, and has not attempted to arrange drugs otherwise than alphabetically. Questionable as this arrangement may appear, the author states that friendly criticisms have convinced him of the propriety of not changing it. A very valuable section is devoted to non-officinal remedies, and the care with which this portion has been compiled may be inferred from its containing notices of kairin, convallaria majalis, tonga and sodium nitrite. As it stands, this work should form a convenient book of reference for busy practitioners who wish in a moment to turn to the materia medica, therapeutics, or chemical reactions of any drug. It also appears to be admirably adapted to the requirements of the College of Physicians, the sectional arrangement enabling students to study only those portions

which they are able to grasp in their first year. The value of the work for examination purposes would be greatly increased by the addition of a few pages grouping medicinal plants under their natural orders. Industrious students might form this classification for themselves, but only with infinite work.

The Surgical Treatment of Bladder Tumours; by Messrs. Whitehead and Pallard. J. and A. Churchill and J. E. Cornish.—This pamphlet is a reprint of some papers, which appeared in our contemporary, the *Lancet*, at the latter part of last year. As they have, doubtless, been read by a large section of those interested in such work, it is not necessary for us to do more than draw attention to the fact, that the papers are now issued in a separate and collected form. The authors fairly state their subject, and summarise, in tabular form, all the hitherto recorded cases in which membranous urethrotomy has been practised, either for tumour in the bladder, or as an exploratory operation in cases where tumour was suspected.

The Roller Bandage; by Dr. Hopkins. Lippincott, Philadelphia.—The author's plan appears to be the teaching of the art of bandaging by numerous illustrations rather than by elaborate description. Each bandage is illustrated in process of being applied rather than as a completed operation, and the student is thus able to follow the various turns and twists which are necessary to make it fit appropriately and look nice when finished. Of course the illustrations are supplemented by some text; but we gather from the 73 illustrations scattered throughout the book that, contrary to what generally obtains, the text is subsidiary to them. We can recommend the work as very simple and very practical.

A Compend of Surgery; by Dr. Orville Horwitz. Henry Plimpton.—This little book is No. 9 of the Test Series (to some of which we referred in our issue of November 10, 1883). The present volume is rather better than some of the others in this series. It is illustrated with woodcuts, some of which are very familar, and have done excellent service many times over.

ABSTRACTS AND EXTRACTS.

Migraine.—Dr. William A. Hammond, in a suggestive article on this disease, published in the *New York Med. Jour.* (Nov. 17th), says that, until a few years since, the therapeutics of migraine "consisted of a mass of empirical formulæ, constructed upon the shot-gun principle, and directed to the stomach, the nerves, the liver, &c., according to the particular views held by the concoctor." He maintains, however, that through the labours of recent investigators, our views in regard to the essential nature of the malady, and the methods of treatment to be deduced therefrom, are probably as exact as they are in any other disease, and likely to be followed by as beneficial results. He recognises two distinct types of migraine:—1. The angio-spastic, spasmodic, or sympathico-tonic form, due to vascular spasm, producing local encephalic anæmia. It is characterised by pain, nausea, and vomiting, noises in the ear, circles or flashes of light in the eye, mental and physical prostration—and especially by certain oculo-pupillary and vaso-motor disturbances, which are diagnostic of the type, and usually easy of recognition. Thus, during the paroxysm, the pupil on the affected side is dilated, while the eye appears deeper sunk in the socket than is its fellow. The face and ear on the painful side are pale and cold to the touch; the temporal artery contracted and cord-like; and a thermometer with its bulb in the external auditory canal registers a temperature about 0·5° F. below that of the other side. Ophthalmoscopic examination shows that the choroid is paler, and the retinal vessels smaller than normal. Whatever tends to diminish the flow of blood to the painful region—*e.g.*, compression of the carotid on the affected side—increases the intensity of the symptoms; while the pain, &c., are lessened by anything which increases the quantity of intra-cranial blood, as by pressure on the opposite carotid, causing a diversion of blood through the contracted artery; a certain amount of reaction attends the passing off of the paroxysm. As regards treatment, the indications are to relax vascular spasm, and to augment the volume of intra-cranial blood. To this end, *galvanism* is of great service—one pole being applied over the cervical sympathetic, and the other over the solar plexus, and a current from about fifteen cells being allowed to pass for two or three minutes. Still better is the administration of a quarter of a grain of morphia hypodermically, followed by a drop of a one-per-cent. solution of nitro-glycerin every fifteen minutes in pill or on sugar. Specific ætiological complications require special modifications of this treatment; thus, if the migraine own a malarial origin, a large dose (half a drachm is not too much) of sulphate of quinine should be given instead of the morphia. During the intervals, the bromides should be administered persistently for months; and, during the same period, glonoin (one drop of the one-per-cent. solution three times a day). 2. In the paralytic form the coats of the arteries are relaxed. During a paroxysm the pupil is contracted as is the opening of the eyelids on the affected side; the ear and side of the face are redder and hotter than usual; a thermometer inserted in the meatus indicates a temperature increased by from 0·2° to 0·5° F. over that of the sound side. The temporal artery is enlarged and tortuous, and pulsates with abnormal vigour. The *fundus oculi* appears of a bright scarlet colour. Compression of the carotid on the affected side lessens the pain; and whatever tends to increase the amount of intra-cranial blood intensifies all the symptoms. In this form, galvanism, applied as previously mentioned, is often equally efficacious in cutting short a paroxysm. Cold to the nape of the neck is useful; and compression of the carotid artery on the affected side sometimes acts like a charm. Thirty or forty grains of guarana, or ten grains of caffeine, or even strong tea or coffee, will often cut short a seizure; but better still is a large dose—a hundred grains—of sodic bromide, this rarely fails to abort a paroxysm; "the bromides not only relax vaso-motor spasm, but give tone to vessels whose coats are relaxed." Treatment during the intervals should consist of the bromides, ergot, and strychnine. Dr. Hammond mentions that these two conditions, described above, sometimes alternate—one paroxysm being of the spasmodic variety, and another presenting all the phenomena of the paralytic type. Occasionally both may exist at the same time on the opposite sides. At other times the oculo-pupillary and vaso-motor symptoms may be absent, the pain alone being present; in such cases, however, indications for the therapeutics can often be obtained by observing the effect (as regards increase or diminution of the pain, &c.) of making pressure on the carotid artery of the affected side. It is pointed out that, in both forms of the disease, attention must be given to securing a satisfactory condition of the stomach and bowels. Attacks of either kind are sometimes induced by the presence of undigested food—in which case an emetic or a purgative aborts the paroxysm at once.

Sciatic Neuritis in Phthisis.—An account is given in the *Gazette des Hôpitaux* (Nov. 16), of a case of this description which came under Dr. Landouzy's care at the Charité. A woman, 33 years of age, but apparently much older, applied on account of an affection of the chest, and on examination, manifested all the signs of extensive tubercular infiltration of the left lung. There was also remarkable atrophy of the right leg, and although the woman did not apply with respect to this, she admitted that for the last 18 months she had constantly suffered severe pain in this limb, whether she was using it or not, and at night as well as by day. The seat of pain was referred to the sciatic nerve at its exit, and along the course of its trunk and principal branches. This peculiar course and continuity of the pain were pointed out by the late Professor Lasègue as the means of diagnosing between sciatic neuritis and neuralgia, and Dr. Landouzy did not hesitate to attribute the present case to the former affection, especially as it was also accompanied by marked atrophy of the limb. As to the relation of the neuritis to the tubercular infec-

tion, it is to be observed that the patient, who had no family or personal history of phthisis, had cohabited with two men in succession who were the subjects of this disease; but she did not complain of her health until 18 months before her admission, when she became the subject of peritonitis, and afterwards of fistula in ano, for which she underwent operation. It was during this period also that the painful affection of the leg commenced, and that she was seized with cough and hæmoptysis. Dr. Landouzy does not hesitate to regard the neuritis as one of the localisations of tubercle, of which other examples are on record. Professor Peter, for example, in his *Clinique Médicale*, has shown by several examples that disturbances in innervation of the highest importance may be produced in phthisis, and that they are associated with its most serious forms, or appear at the moment of definitive and hopeless aggravation of the tubercular disease—becoming an indication of the extreme gravity of the disease and of the approaching death of the patient. He refers to two such cases of sciatic neuralgia, or rather neuritis; at his instigation, M. Friot produced, in 1879, a thesis in which this point in the history of tuberculosis was examined. Among 137 cases of phthisis admitted into Professor Peter's wards in 1878, M. Friot met with four instances of the occurrence of sciatica in the course of phthisis, which, joined to Professor Peter's two cases, and five others reported elsewhere, form the material for his conclusions. In Professor Peter's two cases, and in three of those related by M. Friot, as well as in the one which forms the subject of his paper, the sciatica closely coincided with the commencement of the pulmonary tuberculosis. His conclusion is that sciatic neuritis depends upon a special anatomical lesion, such as tuberculosis, influencing the nervous substance or its coverings and acting upon neighbouring nerves. Two of his cases tend to prove that in tubercular sciatica there is always a changed condition of the spinal cord or its membranes, a condition of a variable character, but capable of producing secondarily a peripheral neuritis. Summing up the results of M. Friot's eleven observations, it seems that this neuritis may commence the series of affections associated with phthisis, or burst out during the course of the disease. The pains in place of being intermittent as in neuralgia are constant and very obstinate; and their appearance should give rise to the suspicion of tubercular change either in the cord or its membranes, or in the spinal column. They tend to aggravate the disease, and generally precede only by a short time the fatal termination. While in sciatic neuralgia we may obtain a cure by means of narcotics and antispasmodics, antiphlogistics furnish the only means of relieving the pains of neuritis, while a complete cure is in all cases unattainable.

The Uterine Mucous Membrane during Menstruation.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a paper on this subject by Dr. Theodor Wyder, of Zurich. He commences with a criticism of the observations of others on the point, and takes exception to most of them on the ground that sufficient care has not been taken to discriminate the effects of disease and of post mortem alterations from physiological changes. He admits some few former descriptions as valid, and has made observations on nine women himself. His own were made in the following manner. He chose women in health and menstruating regularly. During menstruation a speculum, not oiled, was passed, and the blood and mucus oozing from the cervical canal were collected with a glass rod or a syringe, neither instrument being oiled, and care being taken not to let it enter the cervical canal lest any cervical structures should be accidentally detached. The blood and mucus thus procured were examined microscopically. He comes to the following conclusions:—1. During menstruation a part of the superficial layer of the mucous membrane is destroyed, while the rest persists. This removal of the superficial layer of mucous membrane takes place to a different degree in different cases, sometimes being complete, sometimes "minimal." The separated layer in part retains its structure, in part is broken up into detritus, in some cases small bits of mucous membrane, in structure like the membranes of dysmenorrhœa membranacea, but causing no pain on account of their smallness, being found in the menstrual discharge. 2. The separation is a consequence of the menstrual hæmorrhage, and not of primary fatty degeneration. This latter is rather a consequence of the detachment and breaking up of the mucous membrane effected by the bleeding. 3. The superficial and middle layers of the remaining mucosa are composed of small cells, and have no resemblance to the decidua of pregnancy; while in the deeper layers there is a cellular hyperplasia of the interglandular tissue plainly intended to reproduce the tissue cast off during menstruation. 4. The regeneration of superficial epithelium takes place both from the glandular epithelium, and from the larger or smaller islets of superficial epithelium that may remain.

Water in the Dietary of Young Children.—In a communication to the *New York Medical Journal* (September 29), Dr. Remsen, of the Nursery and Child's Hospital, calls attention to the general ignorance which prevails as to the necessity of furnishing infants with a sufficient quantity of water, especially in hot weather, and whether they are brought up at the breast, or artificially. For want of this, the fluid portion of any food introduced into the stomach is quickly taken up, leaving the solids too thick to be easily digested. They ferment and produce indigestion and colic, together with diarrhœa. As a consequence of the thickened state of the blood thus produced, excretion of sweat is arrested, and a state of collapse and hyperpyrexia is developed. In warm, dry weather, babies will drink cool water every hour, or oftener, if it is, as it should be, offered them. The earliest sign of the water in the system being below its normal standard is a slightly depressed condition of the anterior fontanelle. This may be present in children apparently in perfect health, yet in whom a slight increase of temperature or the deprivation of the breast for a few hours, may give rise to sudden hyperpyrexia. Attention is, however, usually first aroused by the fretfulness of the child, a moderate rise of temperature and pulse, a hot, dry skin, and a constant desire to suck. If a free supply of water be given, and nursing restricted in frequency, these symptoms will often disappear completely and quickly, but if not, collapse will soon come on. The temperature ranges from 105° to 106° F., or higher; the pulse is small and thready, numbering from 180 to 200; the skin of the body is painfully hot, while the extremities are cold; the features are pinched and sunken, with the eyes half-closed and the pupils contracted; the fontanelle is depressed, the hands are tightly shut, the respiration is hurried and irregular, and consciousness seems abolished. A child in this state will swallow water with greediness and the utmost pleasure. The treatment adopted at the Nursery has been wrapping the patient in a wet sheet, applying cold to the head, and giving as much water as can be swallowed. The results have been very satisfactory, the child becoming quiet, and even going to sleep, while all the threatening symptoms rapidly subside. "The attention given to this point as a prophylactic measure has been followed by a diminished rate of mortality, and a marked reduction in the number of gastric and intestinal complaints. If more care was taken to give children a proper amount of water, and restricting their hours of sucking or feeding, the mortality due to hot weather would decrease, and less would be heard about the troubles of teething."

Prof. Paul Bert's Method of Administering Chloroform.—The *Gazette des Hôpitaux* (1884, No. 1), furnishes an account of the first trials which have been made of this method on the human subjects, after 300 experiments had been performed on dogs with satisfactory results. M. Dubois, the laboratory assistant of Prof. Bert, described to a large assemblage at M. Péan's Clinique, at the St. Louis, the mechanism of the gasometer made use of, and stated that 8 cubic centimetres of chloroform to 100 litres of atmospheric air had been, by experiment, found to be a satisfactory combination. In the six cases then operated upon, anæsthesia was induced without preliminary local irritation of the mucous membrane, in a few minutes, the pulse and respiration continuing regular during the anæsthesia.

M. Péan observed, after the operations were concluded, "that there was every reason to hope that future trials would confirm these results, and the exact dosage of anæsthetics will certainly prove one of the glories of French physiology."

Nephritis as a Sequela of Varicella.—Professor E. Henoch, in the *Berlin. Klinische Wochenschr.*, No. 2, relates four cases of nephritis which followed after, and apparently as the result of, attacks of chicken-pox. The attacks of chicken-pox were accompanied by moderate fever, and occurred in children whose ages were 2 years, 4 years, 5 years, and 10 years. The nephritis supervened from 8 to 10 days after the commencement of the onset of the chicken-pox, and was accompanied by albuminuria, pallor, and œdema of the face, hands, and feet. The urine also contained casts, epithelial cells, and blood corpuscles. In three of the cases, recovery took place in the course of a few weeks; the treatment consisted of vapour-baths, acetate of potash or "Bilin" water. In the 4th case, death took place suddenly on the 17th day from the commencement of the nephritis. At the post-mortem there was found moderate hypertrophy and dilatation of the left ventricle, normal valves, œdema of the lungs, and acute parenchymatous nephritis. Henoch remarks that he has failed to find similar cases recorded, and points to the necessity of retaining the patient in bed, and examining the urine, especially during the second week of the attack.

Congenital Absence of a Portion of the Ileum.—In the October number of the *Medicinisch-Chirurgisches Correspondenz-Blatt*, a new journal published at Buffalo, N.Y., for the benefit of German doctors practising in the United States, an interesting case of congenital occlusion of intestine is related, in which an important ethical question is raised. The child, a well-formed female, suffered in about six hours from its birth from fæcal vomiting, purgative remedies being rejected in like manner. No defect could be detected in the anus or rectum. An operation for the establishment of an artificial anus was proposed, but refused by the parents. After death, the whole of the large intestine and the lower ten inches of the ileum were found empty, shrunken, and contracted; above this the small intestine to the duodenum was immensely distended. An interval of about three-quarters of an inch was found in which the continuity of the intestinal tube was interrupted, both upper and lower segments of intestine ending in a *cul-de-sac*. Under such circumstances, an artificial anus must of necessity be permanent. Dr. Krombeia, who communicates the case, is clearly of opinion that, with such a prospect, the duty of the doctor is "to leave the case to Nature."

The Hypophosphites without Syrup.—Dr. G. S. Gerhard recommends the following formula:—℞ Calcii Hypophosph., Potassii Hypophosph., Sodii Hypophosph., āā gr. j; Quiniæ Hypophosph., Mangan. Hypophosph., aā gr. ¼; Ferri Hypophosph., gr. ½; Strychniæ Hypophosph., gr. $\frac{1}{120}$; Glycerini, ♏ iij; Liq. Acid Hyposulph., ♏ ij; Aq., ad ℥.ʒ j. The addition of a definite amount of hyposulphurous acid prevents the precipitation of at least two of the salts (those of iron and manganese). The solution is clear, slightly fluorescent, and pleasantly acid. This formula is certainly an improvement on the ordinary syrups, the excess of sugar in which often decreases the appetite and deranges digestion. Two minims of Acid. Phosphoric. dilut. B.P., if substituted for the hyposulphurous acid in the above formula, appear to be equally efficacious in preventing precipitation. If the iron and manganese be omitted, a few drops of dilute Hydrobromic Acid serve to maintain the other ingredients in clear and permanent solution. (*Phil. Med. Times, Nov.* 3, 1883).

Coxalgic Mimesis.—Dr. J. L. Bauer corroborates the statement first made by Dr. Gibney, of New York, concerning the frequent similarity between the symptoms exhibited in cases of morbus coxæ, and in perinephritis and pyonephrosis. The coxalgic symptoms—joint pain, with flexion and abduction, or adduction of the limb—appear when the pus "penetrates the sheath of the psoas muscle, and, securing no outlet, occasions a constant pressure in every direction upon the neighbouring nerves and tissues." Differential diagnosis may be very difficult in the early stage, and demands a careful examination of the lumbar region, whether there be any history of previous urinary trouble or not. In the stage of adduction and flexion, the production of anæsthesia is probably the only means of resolving doubt, unless the abscess have already opened; in the one case, these symptoms completely disappear, while, *in coxalgia, the muscular contractions and pain are relieved neither by anæsthesia nor by the creation of fistulous tracts.* In coxalgia, too, the existence of articular effusion or of a defined roughness of the articular cartilages may be discovered. (*New York Medical Record, Dec.* 8, 1883).

Antiseptic Pomade.—Dr. Lucas Championnière (*Union Med.*, Jan. 1878) recommends the following formula:—Powdered boracic acid 6 parts, vaseline 30 parts. The acid is to be incorporated after it has been passed through a sieve, with the vaseline, and without dissolving it in alcohol or glycerine, which renders the pomade irritating. If it is wished to scent it, half a part of balsam of Peru may be added. This pomade will keep for an indefinite length of time. It may be spread on linen or salicylated wadding, and is employed with success in fetid eczema, fetid transpiration of the feet, and in the intertrigo and erythema of new-born infants.

The Artificial Cultivation of the Vaccine Virus.—The *Boston Med. and Surg. Jour.*, Dec. 20, 1883, prints a communication from St. Petersburg, giving a *resumé* of the communication recently made by Dr. Qvist to the Medical Society of Finland, on this subject. He states that the vaccine bacterium is a veritable *aërobium*, and in the lymph spaces of the skin it finds sufficient air containing the carbon dioxide requisite for its normal development. For the culture-fluid, he prefers to use egg-albumen mixed with glycerin; the hygroscopic qualities of the glycerin obviate that partial desiccation to which egg-albumen alone is liable when exposed to the air, and which prevents the successful cultivation of the bacteria. Moreover, a large proportion of glycerin, while favourable to the propagation of the vaccine germs, destroys the ordinary mould fungi, whose presence would otherwise interfere with the successful growth of the former; the vaccine bacteria, again, prefer an alkaline vehicle. Dr. Qvist gives four formulæ of cultivation fluids, which consist essentially of bovine blood-serum, or of egg-albumen, with glycerine, water, and a small per-centage of calcic carbonate. The culture-vehicle itself is efficiently sterilized by subjecting it to a constant temperature of 60° C. for one and a half hours continuously for three successive days. A favourable temperature for cultivation is found to be the usual summer heat, or that of a warmed house in winter—about 19° C. to 20° C. As "vaccine seed" he has used ripe lymph imbibed by a piece of dry sterilized sponge, which is transferred to the culture-fluid in a watch glass; or, preferably, he removes a piece of epidermis from a true vaccine pustule on the eighth or tenth day, taking care that no blood-serum is attached to it, cleanses it by washing, and, after two days' careful drying, places it in the culture-fluid. The watch glass should be placed on a table or shelf, exposed to moist air, and covered by a clean tumbler. If a concentrated virus is required, a test-tube is preferable to the watch glass, and it should be closed with a cork coated with sterilized paraffin, leaving a minute air-hole on the side of the cork. In the course of a day or two the culture-medium becomes turbid, and gradually it assumes a yellow or straw colour. In seven or ten days, scales form on the upper surface of the liquid, and a fine powder falls to the bottom of the glass. This powder, which is also attached to the scales, contains the bacteria. Vaccine lymph thus artificially prepared can be preserved in capillary glass tubes, and used as required. Dr. Qvist is alleged to have proved by inoculation in several instances that his artificially prepared lymph produced pure vaccine vesicles.

Menstruation after Removal of the Ovaries.—In a paper read at the meeting of the American Gynæcological Society (*Philadelphia Medical News*, September 29), Dr. Campbell, of Augusta, asserted that menstruation often continued after removal of the ovaries, and attributed this to the fact that the function is influenced from the lower portion of the spinal cord. Dr. Goodell, of Philadelphia, speaking from his large experience, maintained that such menstruation is very rare, although in all his removals of the ovaries he had met with a spurious menstruation, appearing about five days after the operation, and which he attributed to the irritation of the nerves included in the ligatures. Two cases only of menstruation have occurred to him: in one, the bleeding was not in fact menstrual, but due to a sarcomatous tumour of the uterus. In the other, menstruation has continued regularly since the operation. This he considers may be due either to some abnormally placed ovarian tissue that had been left behind, or to sufficient time not having elapsed to break up the habit of menstruation. Dr. Emmett, of New York, referred to a case in which the patient, when last heard of, had menstruated thirteen times, the discharge, which, prior to the operation had been excessive, having become natural. Dr. Gaillard Thomas, of New York, said that he had removed both ovaries between fifty and sixty times, and he believes that the exceptional cases of apparent menstruation after the operation, are really examples of metrostaxis, the uterus, having been in the habit of menstruating, continuing awhile the function. The bleeding gradually diminishes, and finally disappears. There are numerous cases on record in which impregnation has followed upon removal of both ovaries, and he believes that these were dependent upon the presence of a third ovary. Dr. Byford, of Chicago, observed that the frequency of this occurrence depends much upon what is regarded as menstruation. If it occurs only when ovulation takes place, it is very rare, and can only be due to some of the ovarian structure being left behind. A mere discharge of blood may occur in many cases; and almost invariably, if the periods of recurrence be noted, it will be found that the discharge is a mere metrorrhagia and not menstruation.

Congenital Absence of Left Kidney.—Two cases have recently been reported in America, in each of which post-mortem examination revealed the existence of but a single kidney. In both it was the left organ that was wanting. The patients were adults—a woman, æt. 45, and a man, æt. 65; in the former the left supra-renal capsule, somewhat larger than normal, occupied its usual position; the right kidney was very small, about the size and shape of a hen's egg, and death was probably to be accounted for mainly by its diseased condition (interstitial nephritis). The man died of cancer of the stomach; his single (right) kidney was very large, but healthy.—*Boston Med. and Surg. Jour.*, Dec. 20, 1883.

Actinomycosis in American Cattle.—This malady was first recognised, six years ago, by Böllinger, of Munich, who described it as a parasitic disease, due to the presence of a rapidly growing fungus. Since then it has been discovered in man and in the hog. Quite recently Dr. Belfield has recognised it in the cattle disease generally known as "swell-head," and called by veterinarians cancer, sarcoma, &c., which he was asked to investigate by the Commissioner of Health of Chicago. Its source is believed to be the grain on which the animal is fed. It generally first attacks the jaws, and gains access to the deeper structures through carious or defective teeth: spreading into the tissues of the head, it produces tumefaction, suppuration, and finally, if unchecked, even pyæmia and death. By means of the blood it may be transferred to other parts of the body—and this happens especially in man, upon whom the parasite acts most virulently. The flesh of animals dying of actinomycosis is not of first quality, but does not appear to be absolutely injurious; thorough cooking, at any rate, destroys the parasite. (*New York Medical Record, Dec.* 8, 1883).

Case of Poisoning by Tartar Emetic. — Dr. J. S. Carpenter relates in the *New York Med. Record* for October 13, the case of a man, 21 years of age, who was employed in the Dispensary Department of the Episcopal Hospital, at Philadelphia, and who took in mistake a glass of solution of tartar emetic, containing, it was afterwards calculated, 170 grains. No ill effects occurred for a quarter of an hour, when he was seized with intense vomiting, which recurred many times, accompanied by violent pain in the œsophagus and at the epigastrium. When put to bed in the hospital, he was in a state of prostration almost amounting to collapse, and suffered from distressing pain. Tannic acid solution was administered abundantly as an antidote, followed by albuminous drinks, and tincture of opium was given to allay the burning pain. The temperature was only 95° F. and a strong intermittent pulse could hardly be perceived. Small and frequent doses of spir. frumenti and liq. calcis were given and external stimulation, by means of hot-water cans and vigorous friction, was kept up; but it was only after 3 hours of unremitting efforts that reaction was established, the temperature rising to 99·5°, and the pulse improving. A "rice-water" evacuation, streaked with blood, and accompanied by severe cramp in his legs for several hours after admission, was the only evidence of intestinal irritation. The deodorised tincture of opium (of which 220 drops were taken within 2 hours), together with morphia hypodermic injection, greatly relieved the pains of the abdomen. The distressing thirst was met with a grateful drink, formed of an egg and milk mixture with ice. After 3 or 4 days' rest in bed, the patient was discharged, cured. The urine, which according to some authorities is increased, was in this case very scanty, so as to be almost suppressed. There was no disturbance of the respiratory or sensory functions.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 22nd, 1884.

John Marshall, F.R.S., President, in the Chair.

On taking the chair at the ordinary meeting of the Society, on Tuesday last, the president referred in feeling terms to the great loss which the Society had sustained since their last meeting, in the death of Mr. B. R. Wheatley, their resident librarian. It would be difficult, he said, if not impossible, to replace such a man. He should reserve further remarks on Mr. Wheatley until the annual meeting, when he hoped to be able to pay a tribute to his memory such as his services to the Society entitled him to.

Three communications were then read, of which the following are extracts:—

On the Mechanism which regulates the Arterial Blood-pressure in Health and Disease.

By Charles L. Roy, M.D., of the Brown Institution. The subjects especially dealt with in this address were—

1st. Effect on the blood-pressure of closure of one or more of the larger branches of the aorta, and comparison of this with the effect produced by the injection into the blood-vessels of a considerable quantity of defibrinated blood, or of a neutral fluid such as weak solution of salt.

2nd. The mechanisms which take part in regulating the blood-pressure under the above conditions.

(*a*) The heart, and the methods of investigating its action and the work done by it.

(*b*) The larger and smaller arteries. The elasticity of their walls, and the methods of investigating it, with its influence on the form of the pulse wave and the practical conclusions which may be drawn from the latter regarding the condition of the arterial circulation.

(*c*) The peripheral circulation and the methods of investigating it in the kidney, muscle, skin, and spleen. The

mechanism of the regulation of the peripheral circulation. Method of investigating the capillary circulation.

3rd. The changes in the above which accompany some of the principal types of diseased processes affecting the circulation.

A case of Spina Bifida.

Mr. WHITEHEAD (Manchester) shewed a woman who had been under his treatment in the Royal Infirmary, on account of spina bifida.—The following were the principal points in the case:—Although the woman had a spina bifida, in the lowest part of the spinal column, there appeared to be no paralysis, and she had gone on well for 21 years, during which the tumour had remained stationary. After an unfortunate marriage, the tumour began to enlarge, at first slowly, and subsequently more rapidly. When about 28 years of age, dangerous nervous symptoms began to manifest themselves, and then she applied for advice at the Royal Infirmary. With a view to combat these symptoms, the tumour was tapped, and large quantities of clear cerebro-spinal fluid were withdrawn: but the nerve symptoms only became aggravated. It was then determined to apply powerful counter-irritation to the tumour in the shape of the actual cautery, this being drawn cross-ways over the tumour. Very shortly afterwards, the fluid in the sac became puriform, and Mr. Whitehead decided to lay it freely open. Layers of antiseptic gauze were kept applied, and a complete cure finally resulted.

THE PRESIDENT thought it an interesting case, but that it differed from ordinary spina bifida as seen in infancy, in not having so extensive a communication with the cord.

Mr. WHITEHEAD, in answer to Mr. Parker, said the opening into the spinal canal at the time he laid open the sac was closed by granulation tissue.

Preliminary Communication on the Existence of Sensory Nerves in Nerve Trunks, true "Nervi Nervorum."

Mr. VICTOR HORSLEY contributed a paper with this title and showed a large number of microscopical sections in illustration of it. The following is an abstract of the paper:—Although a fertile source of theory for some time, true sensory nerves have not been described hitherto as supplying nerve trunks. Both Sappey ('Traité d'Anatomie descriptive,' p. 223, 1872) and Krause ('Handbuch der Menschlichen Anatomie,' 1882, evidently following Sappey's description) mention fine nerve branches forming a vasomotor plexus around the vessels of the epineurium. In addition to these, which can be demonstrated with ease, there exist also (in man) true sensory nerves concealed by the fat cells of the epineurium and terminating by end bulbs on the perineurium. These alone should be termed "nervi nervorum," those above-mentioned being properly "nervi vasorum." They appear to arise occasionally from the primary bundles of nerve fibres, but also (and perhaps more frequently) from the cutaneous (?) branches given off by the former. Their direction is first at right angles to the primary bundles and then parallel, running as single medullated fibres of medium size, in the connective tissue of the epineurium, and terminating in end bulbs very similar to those found in the conjunctiva, &c., and which consist of a connective-tissue capsule, containing a protoplasmic core at the base, and two nucleated protoplasmic corpuscles at the extremity, close by which the axis cylinder can be traced, but without appearing to end in them. The localisation of pain in neuralgia, referred to by Mr. Marshall in the Bradshawe Lecture, 1882, is thus accounted for, and an additional aid to "muscular sense" suggested.

THE PRESIDENT had taken great interest in the subject; he had long believed that nervi nervorum existed, and had suggested to Mr. Horsley the desirability of working out the problem. He was grateful that Mr. Horsley had so ably carried out the research, and pleased with the successful result of his work.

Dr. HOGGAN thought that the preparations exhibited hardly bore out Mr. Horsley's conclusions. The small nerve fibres passing from the trunks, he thought, were merely interweaving branches of fasciculi. In teased nerves medullated fibres were often found running with vessels, but they did not go to supply the vessels. As regarded the end bulbs, he thought they were ganglia: and as regarded the presence of Pacinian bodies on the extremities of the ulnar nerve, he thought this was only what was usually taught.

Mr. HORSLEY, in reply, said the single nerve fibres were provided with a special sheath: they were very wavy and lay over the fasciculi, the interlacing bundles of which were straight in outline. He had not stated that medullated nerve fibres went to the vessels, but the contrary: moreover, his preparations were not teased ones. The appearance of corpuscles, he said, was fallacious, the interior being a twisted core, as seen in the end bulbs; they did not in the least resemble the ganglion cells found in the frog, &c. As to the Pacinian corpuscles, those he had described were found on the ulnar nerve above the inner condyle of the humerus.

The Society then adjourned.

GENERAL CORRESPONDENCE.

CONSULTANTS AND GENERAL PRACTITIONERS.

[To the Editor of the Medical Times.]

SIR,—Allow me to thank "Z." for his courteous reply to my former letter, which however, has not made the subject much more clear to me. I do not myself regard with the aversion that he does "the dabbling by consultants in general practice," but I do challenge the right of those who do so, *sub rosâ*, to pretend to a higher status, than those who *openly* do the very same thing. Will "Z." kindly oblige me by stating clearly and distinctly the line of demarcation between the consultant and general practitioner, and show that it is *not* one habitually crossed by the former? I shall be genuinely grateful to him if he can show me, that what appears to me a chaos (not unmixed with a little humbug —, pardon the word) is a rational, well organized, and *universally observed* system. Touching "Z.'s" reasons for hospital physicians being so far superior to others, I regret that I can only partially agree with him. In other arts than ours—and we must never forget that medicine is an art as well as a science—the teacher is frequently far inferior to those who are not teachers. Our greatest orators have not usually taught rhetoric, our greatest musicians been professors of music, nor our greatest artists drawing masters. "Z." talks of "men more remarkable for knowledge of the world than for knowledge of pathology." But I maintain that a good physician should be both, and that where hospital men are often so deficient is in the former qualification. An experience gained *solely* from the class of patients who form the bulk of hospital cases will often prove at fault, when applied to a class whose whole habits and environment are totally different. Scientific pathology will not *alone* enable the physician to guide aright the crotchetty and bilious old Indian, with peculiar views upon diet, and mode of life generally, nor those suffering from the complaints of modern society. A word to "Medicus." He apparently confounds the man who has scraped through the easiest available curriculum, and qualification, with the man who has spent five, six, or more years, and taken the highest degree obtainable, at a University—and who, after filling all the hospital posts below hon. assistant physician or surgeon, has subsequently cultivated private practice instead of only hospital. Now I maintain that the gap is infinitely greater between these two men than between the latter and the ordinary hospital physician. I do not think that a man should attempt the Herculean task of cultivating the progress of every branch, all round, but should with-

draw from those that he feels are not his best line, and cultivate only what he feels is so. I myself have long since abandoned surgery--though a school prizeman--merely because I found it impossible to conscientiously continue my study of it is as well as of medicine, which latter I preferred.

But because I do not hold a hospital appointment, and have not inflicted a compilation of platitudes upon my brethren, am I to consider myself in the same professional category with the gentleman round the corner, with his red lamp, and bottles of physic in the window? I hope that I am not doing "Medicus" an injustice when I say that, judging from the tone of his letter, he may possibly say "yes" to the above. I have certainly met some who would, but am consoled by the fact, that so many of my patients who know the world pretty well, think differently. "Medicus's" observation concerning "consultants, who have prepared themselves for special lines of practice, by prolonged study of certain departments of disease," reminds me of a case which came to me after treatment by an eminent consultant, who had quite correctly diagnosed a deposit of tubercle at the apices of both lungs, and was treating him accordingly, but who unfortunately overlooked the fact that the man was suffering from renal cirrhosis, of which he died long before the lung mischief had developed to any serious extent.

And specialism has this danger for humanity, that the body is not a mechanical thing, like a gun, in which the stock maker, the lock maker, and the barrel maker can work absolutely irrespective of the others, but is a complex cosmos, with its component parts and forces so correlated as to necessitate a broad view being taken of even an apparently localized disorder.

I am, Sir, &c.,

M.D.

MEDICAL NEWS.

Poor Law Appointments in Ireland.—A singular dispute has arisen between the guardians of the Listowel Union and the Local Government Board. The guardians recently appointed Dr. Dillon to be medical officer, but the vice-chairman objected to the appointment on several grounds, but especially because, as he alleged, Dr. Dillon had given a sum of money to his predecessor to create a vacancy by resigning. The Local Government Board, after receiving Dr. Dillon's explanation, expressed their strong disapproval of all such transactions, and refused to sanction the appointment. The guardians were required to proceed with a new election, and, after advertising for candidates, the new election was held, and Dr. Dillon was again elected by a large majority, some of the guardians who supported him observing that they felt sure the Local Government Board would sanction the appointment this time. The ultimate action of the Local Government Board is awaited with considerable interest, as the practice is understood to be frequently resorted to, not only in the Poor Law Medical Relief, but in other public departments.

A Year's Mortality in Edinburgh.—In the course of the past year 4,275 deaths were recorded in Edinburgh, being equal to a rate of 18·22 per 1,000. The average rate for the previous five years was 19·69. No fewer than 446 deaths were registered as having been due to preventible causes. There was a marked diminution in the number of fatal cases of typhoid fever, the mortality amounting to 40, as compared with 71 in 1882. On the other hand, there was a considerably increased mortality from measles—a disease which has been epidemic in the city for some months. The deaths during the year numbered 138, as compared against 87 in 1882. With regard to the 5,411 notifications by practitioners as to the outbreak of infectious diseases in the city, those concerning scarlatina numbered 1,817, while notice was given of nearly 3,000 cases of measles. Last month there were recorded 1,005 cases of measles, and 246 of scarlatina. The cases of diphtheria numbered 214; typhoid, 346; and typhus, 50.

The Health of the Army.—Venereal, of the most virulent type, says the *Army and Navy Gazette*, is still the prevailing disease among the troops at all the military stations. At Aldershot, considerably more than one-half the patients in hospital are suffering from this disease, which is steadily on the increase. On the other hand, the Lock hospitals are almost empty. Attendance at these institutions being now optional, but few unfortunates present themselves for treatment; and these, as as a rule, are only very bad cases. Fostered and encouraged as it is, this loathsome disease is spreading to such an extent as to cause grave anxiety.

Cambridge University.—The Regius Professor of Physic (Professor Paget) will begin his lectures on the Principles and Practice of Physic on Monday, January 28, Subject for the term: "The Causation of Diseases and Elements of Hygiene." The Professor of Surgery (Professor Humphry) gives notice that his lectures on the Principles of Surgery will commence on Thursday, January 24. The Professor of Chemistry gives notice that his lectures on the General Principles of Chemistry will begin on Thursday, January 24. The Jacksonian Professor gives notice that he will lecture during the Lent term on Organic Chemistry; the lectures will begin on Monday, January 28.

The Dublin Artisans' Dwellings Company. — On Monday, the 14th instant, a number of prizes were distributed to the occupiers of the houses and cottages, the property of this company, by Lady Kathleen Brabazon, daughter of the Earl of Meath. Dr. Grimshaw, the Registrar-General for Ireland, read the report of the judges, from which it appeared that, in all the groups of buildings except the Coombe, there was a somewhat lessened competition for the prizes. It was deemed advisable to exclude from competition for one year the winners of a first prize, as the unsuccessful candidates were apparently hanging back from a renewed competition in consequence of their failure. The judges noticed that in several instances there was a tendency to sacrifice the health and comfort of the house to accommodation for flowers.

Parkes Museum Lectures.—On Thursday, the 17th instant, Mr. Pridgin Teale delivered his lecture on "Economy of Coal in private houses." He enunciated the following rules for the construction of a fireplace, with a view to the economy of coal consumption and the abatement of smoke: —1. As much firebrick and as little iron as possible. 2. The back and sides of the fireplace should be firebrick. 3. The back of the fireplace should lean or arch over the fire so as to become heated by the rising flame. 4. The bottom of the fire or grating should be deep from before backwards, probably not less than 9in. for a small room, nor more than 11in. for a large room. 5. The slits in the grating should be narrow—perhaps ¼in. wide for a sitting-room grate, ⅜in. for a kitchen grate. 6. The bars in front should be narrow. 7. The chamber beneath the fire should be closed in front by a shield or economiser.

University of Edinburgh.—At a crowded and enthusiastic meeting held at Edinburgh on Thursday, the 17th instant, a "Students' Representative Council" was founded, and a provisional committee elected. The object of the association is to consolidate together the students of different faculties into a corporate whole, to encourage social intercourse between them, and to watch over their interests as a body.

Army Medical Department. — Surgeon-Major W. Temple, V.C., has been appointed secretary to the principal medical officer in India, in succession to Deputy-Surgeon-General Wolseley, who proceeds to England.

Fever at Aldershot.—Enteric fever has broken out among the troops in the permanent infantry barracks at Aldershot, and several serious cases have already been sent to the second Station Hospital. All the huts in the south camp, some of which are said to be in a very dilapidated condition, have been inspected. These huts were condemned years ago as unhealthy, while the brick buildings recently erected are allowed to remain empty.

Vaccination Grant.—Dr. Thomas Dutton has obtained the Public Vaccination Grant of £7 4s. for successful vaccination in the Manhood District, Westhampnett Union.

CHARGE AGAINST A MEDICAL PRACTITIONER.—On Monday, the Anglesey magistrates committed for trial at the assizes Dr. Roland Williams, a surgeon practising at Holyhead, on a charge of issuing a false certificate of death, with intent to defraud the Royal Liver Friendly Society of Liverpool.

THE LATE MR. WHEATLEY. At a special meeting of the Council of the Royal Medical and Chirurgical Society, on the 17th instant, the following resolution was passed unanimously :—

"The Council of the Royal Medical and Chirurgical Society of London desire to express their sorrow at the sudden and unexpected death of their late excellent Resident Librarian, Mr. Benjamin Robert Wheatley, and their sympathy with the surviving members of his family. The Council also wish to record their deep sense of the value of his services to the Society during the last forty years, and their due appreciation of his constancy and fidelity in the discharge of his important duties." We understand that it is contemplated to establish a memorial of the Society's sense of the unsurpassed devotion which the late Resident Librarian applied to the conduct of the Royal Medical and Chirurgical Society's affairs.

LUNACY BOARD OF LANARKSHIRE.—A deputation from the Lunacy Board of Lanarkshire has been visiting a number of asylums in England during the past fortnight, for the purpose of making themselves familiar with the latest improvements in the construction and management of houses for the insane. The visit has reference to the county asylum which it is proposed to erect. The Board are in expectation that the deputation will bring back some useful suggestion.

MANCHESTER MEDICAL SOCIETY (MICROSCOPICAL SECTION.)—At the Annual Meeting of the Microscopical Section, which was held at Owens College on the 15th instant, the following were elected officers for 1884 :—

President—Dr. H. Ashby.
Vice-President—Dr. J. Dreschfeld.
Committee—Dr. J. Dixon Mann, Mr. Broadbent, Mr. A. W. Stocks, Dr. A. H. Griffith, Dr. H. Tomkins, Dr. H. R. Hutton.
Treasurer—Dr. J. S. Bury.
Secretary—Mr. A. H. Young, 96, Mosley Street.

GLASGOW ASYLUM FOR THE BLIND.—The annual meeting of the subscribers was held on Monday, 21st inst. The secretary's report showed that 76 blind persons, not resident in the asylum, had been employed in the manufacturing department of the institution, while the number of residents numbered 72. There were also six children in attendance at the school, but not in residence, so that in all 154 persons were participating in the benefits of the institution. An urgent appeal was made for increased liberality on the part of the public.

COLLEGIATE LECTURES.—Professor Parker, F.R.S., will commence his course of nine lectures on "Mammalian Descent" in the Theatre of the Royal College of Surgeons, on Monday, February 4, and continue the same each Monday, Wednesday, and Friday, at 4 o'clock; Professor Flower, F.R.S., will follow with his course of nine lectures on "The Principal Types of the Human Form;" he will be succeeded by Mr. Frederic S. Eve, F.R.C.S. (Erasmus Wilson Lecturer), who will give three demonstrations "On Some Points in Pathology, illustrated by specimens from the College Museum;" Professor Sir Henry Thompson will then deliver six lectures on "Some important points in connexion with the Surgery of the Urinary Organs." The courses will be brought to a close by Mr. Edward A. Schäfer, F.R.S., who will deliver three lectures, the subject and dates of which will be duly announced.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 17th inst., and when eligible will be admitted to the pass examination, viz.—

Brodie, F. Carden, of the Middlesex Hospital.
Clarke, S. A., of St. Mary's Hospital.
Cuslahan, Archibald, of Guy's Hospital.
Holman, E. K., of Guy's Hospital.
Levy, Henry, student of St. Thomas's Hospital.
Quartley, S. Warner, of the Middlesex Hospital.
Stelfox, Harold, of Guy's Hospital.
Turner, J. Rowland, of the Sheffield School of Medicine.
Veram, E. Lawrence, of St. Bartholomew's Hospital.
Williams, William, of St. Mary's Hospital.
Wilson, Samuel, student of St. Thomas's Hospital.
Winterburn, J. Williamson, of the Manchester School of Medicine.
Wynter, A. Ellis, of St. Bartholomew's Hospital.

Six candidates were referred for three months, and one for six months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 21st inst., viz.—

Anderson, F. U., L.R.C.P. Edin., Halifax, of the Halifax Hospital
Bell, J., L.R.C.P. Lond., Albert Street, N.W., of University College Hospital.
Bradshaw, T. B., M.B. Dub., Ampthill Square, of the Dublin School.
Edwards, W. L., L.R.C.P. Lond., Carmarthen, of the London Hospital.
Harris, C. J. J., L.S.A., Wandsworth Common, of the Charing Cross Hospital.
Harris, J. W., L.S.A., Ivybridge, Devon, of Guy's Hospital.
Hoffmeister, G. B., B.A. Cantab., Furnival's Inn, of St. Bartholomew's Hospital.
Kirby, E. D., M.B. Edin., Leamington, of the London Hospital.
Kite, E. W. D., L.S.A., West Bromwich, of the Birmingham School.
Ley, H. J., M.B. Edin., Teignmouth, Devon, of the University of Edinburgh.
Mackay, N.E., M.D., Halifax, of the Halifax Hospital.
Minter, E. D., L.R.C.P. Edin., Plympton, of Guy's Hospital.
Myles, G. T., L.R.C.P. Edin., Bristol, of the Bristol School.
Prendergast, J. J., L.R.C.P. Edin., Melbourne, of the Melbourne School.
Ridley, G. W., M.B. Durham, Newcastle-on-Tyne, of the Newcastle School.
Scott, A. W., L.S.A., Stourbridge, of the Birmingham School.
Sheppard, H. A., L.S.A., Southampton, of the Charing Cross Hospital.
Webster, T., L.S.A., Bewdley, of King's College Hospital.
Williams, G. H., L.R.C.P. Edin., Warrington, of the Manchester School.
Young, C. S., L.S.A. Dundee, of the Glasgow School.

Seven candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and one for three months.

The following gentlemen passed on the 22nd instant, viz. :—

Aitken, W. B., M.B. Glasgow, Dalry, Ayrshire, of the Glasgow School.
Bean, W. H., L.S.A., Colchester, of the Charing Cross Hospital.
Buxton, W. M., M.B. Durham, Alderney Road, E., of the Newcastle School.
Francis, W. H., M.B. Edin., Coquimbo, Chili, of the Edinburgh School.
Jackson, A. H., L.R.C.P. Edin., Holtham Road, N.W., of Guy's Hospital.
Jefferson, R. P., Leeds, of the Leeds School.
Kendal, A. S., M.D., Belle Vue Medical College, Sydney, N.S.W., of the Halifax School.
Lawrence, L. A., L.S.A., Belsize Avenue, N., of St. Bartholomew's Hospital.
Parsons, J. P., M.B. Durham, Blackheath, of Guy's Hospital.
Scott, J., B.A. Cantab., Barnard's Inn, of St. Bartholomew's Hospital.
Spicer, F., M.B. Durham, Carleton Road, N., of St. Bartholomew's Hospital.
Tayler, H. P., B.A. Cantab., Barnard's Inn, of St. Bartholomew's Hospital.

Five candidates were approved in Surgery, and when qualified in Medicine will be admitted Members of the College. Ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and three months.

The following gentlemen passed on the 23rd instant, viz. :—

Hunt, B., B.A. Oxon, Oxford, student of St. Bartholomew's Hospital.
Kebbell, C., Brighton, student of St. Bartholomew's Hospital.
Koettlitz, R., Dover, of Guy's Hospital.
Lankester, A. O., Belsize Park, student of St. Bartholomew's Hospital.

Six candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained Medical qualifications, were admitted Members of the College, viz. :—

Bradbrook, W., L.S.A., Green Street, E., of the London Hospital.
Saunders, J. F., L.S.A., Gravesend, of Guy's Hospital.
Sheldrake, E. N., L.R.C.P. Lond., Albion Street, W., of the University College Hospital.

Tilley, W. J., L.R.C.P. Lond., Shepherd's Bush Green, of the University College Hospital.
Weller, C. J., L.R.C.P. Lond., Coleshill Street, W., of St. George's Hospital.
Wnyon, E. J., M.B. Lond., Conisclife, near Darlington, of Guy's Hospital.

Five candidates passed the examination in Surgery, and, when qualified in Medicine and Midwifery, will be admitted Members of the College; eleven candidates were referred for six months, and four for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 17th instant:—

Ingle, Arnold Clarkson, Regent Street, Cambridge.
Saunders, James Fredk., Park Place, Gravesend.

The following gentleman also on the same day passed the Primary Professional Examination:—

Dow, Hugh Aitken, Edinburgh University.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—An examination for the Membership took place on Monday and Tuesday, January 7th and 8th, when the following candidates were successful:—

Henry Colpoys Tweedy, M.D., Dubl., 1874; F.R.C.S.I., 1873; L.K.Q.C.P., 1880.
Stewart Woodhouse, M.D., Dubl., 1874; L.R.C.S.I., 1872; L.K.Q.C.P., 1880.

A Quarterly First Professional Examination was held on Monday, January 7th, and following days, when the undermentioned candidates were successful:—

Beilby, Elizabeth, London.
Fox, William Joseph, Dublin.

The usual Monthly Examination for the Licenses of the College took place on Monday, January 7th, and following days. The undermentioned candidate obtained the Licenses in Medicine and Midwifery:—

Coffey, Joseph.

THE CASE OF MESSRS. BOWER AND KEATES.

The Committee desire to give notice that no more signatures to the memorial, or contributions to the Indemnity Fund, can be received after this day (Saturday, Jan. 26th).

The sum of £13 2*s.* 6*d.* has been forwarded to the Committee by the York Medical Society, subscribed by the following:—T. Anderson, M.D.; R. Baker, M.D.; A. Ball, Esq.; W. Banks, M.B.; Surgeon Beamish, A.M.D.; W. von Beverhondt, Esq.; Surgeon Cream, A.M.D.; W. Draper, Esq.; H. Fitzsimons, M.D.; J. T. Hingston, Esq.; R. Hewetson, Esq.; C. K. Hitchcock, M.D.; W. H. Jalland, F.R.C.S.; T. Kirsopp, M.B.; A. Jefferson, Esq.; E. Morganrood, Esq.; S. W. North, Esq.; R. Petch, M.D.; J. Ramsay, M.D.; Surgeon-Major Riordan, A.M.D.; F. Shann, Esq.; W. A. Shann, M.B.; H. C. Shann, Esq.; H. E. Spencer, Esq.; F. H. Weekes, Esq.; I. M. Williams, Esq.

The following is the seventh list of contributions, being those received between the 12th and 21st inst.:—

H. Gervis, M.D., £5 5*s.*; Reynolds E. Ray, Esq., £2 2*s.*; J. Burdon Sanderson, M.D., F.R.S., £2 2*s.*

The following have sent one guinea each:—J. Airey, Esq.; J. Brands Allan, M.D.; W. Bruce, M.D.; E. Carver, M.A., F.R.C.S.; F. H. Elliott, M.D.; Jas. Ellison, M.D.; Chas. Hutton, M.D.; W. F. Johnson, Esq.; W. H. Rix, Esq.; W. Sutton, M.D.

Henry Viant, Esq., £1.

The following have sent half a guinea each:—W. Wightman Cooper, Esq.; J. K. Milne, M.D.; J. G. Fitzgerald, Esq.

The following have sent ten shillings each:—Bushell Anningson, M.D.; J. B. Collins, Esq.; J. S. Harris, Esq.; J. T. Hartill, Esq.; J. Wale Hicks, M.A., M.D.; J. D. James, Esq.; W. H. Platt, Esq.; John Scott, M.D.; J. Brooks Shepherd, Esq.

The following have sent five shillings each:—W. Stirling Anderson, M.D.; Alfred Clark, Esq.; A. E. Clark, M.D.; C. E. Douglas, M.D.; G. P. Francis, Esq.; E. V. Hemingway, Esq.; W. Hugh Hughes, Esq.; W. Grant Jones, Esq.; R. Hosking, Esq.; S. R. Lovett, Esq.; W. A. Martin, Esq.; G. H. Maskelyne, Esq; A. Ross Paterson, M.D.; J. T. H. Sealy, Esq.; T. Percy Taylor, Esq.; Jas. Titley, M.D.; R. S. Veale, M.D.

The following have sent two shillings and sixpence each:—W. Marston Clark, Esq.; R. Earlam, Esq.; R. Erskine, M.D.; H. F. Hann, Esq.; Geo. Locke, Esq.; J. Foster Palmer, Esq.

Errata.—"W. Bucknill, Esq.," acknowledged last week, should be "J. C. Bucknill, M.D., F.R.S."; "E. Owles" should be "Edmund Owen, F.R.C.S."; and "J. Jones" should be "Sydney Jones, F.R.C.S." C. S. A. Atkinson, Esq., ten shillings, received on the 2nd instant, was inadvertently omitted in the previous list.

F. A. MAHOMED, R. W. BURNET, } *Hon. Secs.*

APPOINTMENTS.

APTHORP, F. W., M.R.C.S., L.R.C.P.—Admiralty-Surgeon and Agent to the Chichester Harbour Division, *vice* Thomas Dutton, M.D., M.B., M.R.C.P., resigned.
BLORE, ISAAC, M.B.—Resident Medical Officer to the Leeds Fever Hospital.
FISHER, S. WINTER, M.D.—Honorary Physician in Ordinary to the Brighton and Home Dispensary, *vice* Dr. Tyler Smith, resigned.
GREENWOOD, CECIL D., M.R.C.S. Eng., L.S.A.—To the Yoxall District, Lichfield Union.
HOWARD, WILFRED, M.R.C.S. Eng., L.R.C.P. Edin.—To the South Welney District, Downham Union.
JACKSON, C., L.R.C.P.—Medical Officer for the Rainton District of the Houghton-le-Spring Union.
JAGO, EDWIN O., M.R.C.S. Eng., L.S.A.—To the Cadishead District, Barton-upon-Irwell Union.
KING, ARTHUR, M.B.C.M. Edin.—To the Aspley Guise District, Woburn Union.
LARDER, H., M.R.C.S., L.S.A.—Assistant Medical Officer to the St. Marylebone Infirmary, Notting Hill.
LUCAS, ARTHUR, M.R.C.S. Eng., L.S.A.—To the Workhouse, Woburn Union.
MOLONY, FITZJAMES, L.R.C.S. Ire., L.K. & Q. Coll. Phys. Ire.—To the Porlock District, Williton Union.
ROBERTS, H. W., M.R.C.S., L.S.A.—Divisional Surgeon to the Brockley Police Station.
SCANLAN, ARTHUR DE COURCY, M.R.C.S., L.S.A.—House-Surgeon to the Royal Westminster Ophthalmic Hospital, *vice* Mr. Willoughby, resigned.
SHAW, J. A., M.R.C.S., L.S.A.—Registrar to the Victoria Hospital for Children, Queen's Road, Chelsea, *vice* B. N. Rake, M.B. Lond.
SPEIRS, W., M.R.C.S., L.R.C.P., &c.—Certifying Factory Surgeon for the District of Cleator Moor, Cumberland, *vice* Dr. Syme, deceased.
WHITE, WM. R., M.D., M.C. Aber., M.R.C.S. Eng., L.S.A.—To the Wadhurst District, Ticehurst Union.

DEATHS.

FORTESCUE, WILLIAM, F.R.C.S., at Albert-road, South Norwood, on January 15, in his 71st year.

VACANCIES.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND STREET, BLOOMSBURY.—Assistant Surgeon. For particulars see Advertisement.
TAUNTON UNION.—The office of Medical Officer of the workhouse is vacant by the resignation of Mr. S. Farrant. Salary £63 10s.
WESTERN GENERAL DISPENSARY, GERRARD-STREET, SOHO.—Physician. Candidates must be Doctors or Bachelors of Medicine and registered practitioners. Diplomas and testimonals to be sent, under cover, addressed to the Secretary, on or before January 29. The election will take place on January 31.

NOTES, QUERIES, AND REPLIES.

Collegiate Examinations.—At the pass examination for the diploma of membership of the Royal College of Surgeons, which was commenced on the 18th instant, 191 candidates presented themselves, as against 175 the corresponding period last year. The following were the questions on surgical anatomy, and the principles and practice of surgery, submitted to the candidates at the written examination on the 18th instant, when they were required to answer at least four out of the six questions, including one of the first two, between 1.30 and 4.30 P.M., viz.:—1. Describe the operation of tying the Common Carotid Artery. Give the anatomical relations of the vessel in the Neck. Mention the anastomoses for carrying on the circulation. 2. The Male Urethra being laid open along its upper surface in its entire course, describe the parts exposed to view. Give the relative dimensions of its various regions. Name the situations most prone to injury and disease. 3. Describe an ordinary case of suicidal "Cut Throat." Give the treatment, immediate and remote, with any complications which may occur. 4. In what way does a Strangulated differ from an Obstructed (Incarcerated) Hernia? Give the symptoms and appropriate treatment of each condition. 5. What parts are most frequently affected by Epithelial Cancer? Mention its most common local causes. Sketch its pathology and treatment. 6. Explain briefly the following terms:—Cirsoid Aneurism; Pott's Fracture; Ectropion; Amussat's Operation; Ptosis; "Réduction en masse." The following were the questions on midwifery and the diseases of women, submitted to the candidates on Saturday, the 19th inst., when they were required to answer three out of the four questions between 12.30 and 2 o'clock P.M., viz.:—1. What discharges may take place from the Genital Canal during pregnancy? What are their causes? and how would you recognise them? 2. Describe the Mechanism of Labour, with the head presenting and the occiput posterior and to the right. 3. Describe the Cephalotribe, and mention the cases in which it is specially indicated. 4. What condi-

tions produce enlargement of the Cervix Uteri, and how would you distinguish between them? On the same day, between 2.30 and 4.30 P.M., those candidates who had not previously undergone any recognised examination on the Principles and Practice of Medicine, were required to answer three out of the four following questions, including No. 4, between 2.30 and 4.30 P.M., viz.:—1. What are the causes, anatomical characters, symptoms, physical signs, and treatment of Acute Pericarditis? 2. Give an account of the Clinical History of a typical case of Measles, and indicate the chief complications and sequelæ to be feared. How would you treat it; and what measures would you take to prevent the spread of the disease? 3. What are the causes of Pyloric Obstruction? Point out its pathological effects, symptoms, diagnosis, and treatment. 4. Mention the principal ingredients in the following Officinal Preparations, and give a concise account of their actions and therapeutic uses, with their doses:—Pulvis Jalapæ Compositus, Liquor Arsenicalis, Liquor Hydrargyri Perchloridi, Mistura Scammonii, Pilula Saponis composita, Mistura Ferri composita. At the primary, or anatomical and physiological, examinations, which were brought to a close on the 17th instant, 211 candidates had been examined, of which number no less than 79 were rejected, viz.:—66 for three months, and thirteen for six months. At the corresponding period last year there were 190 candidates, of which number 139 passed, 44 were referred for three months, and seven for six months.

Damages for Accidents during Anæsthesia.—A suit, brought against a dentist of New York for negligence in allowing a piece of tooth to drop into a patient's throat, which, after causing him to suffer with a cough, was expectorated at the end of a month, was recently decided against the defendant, who was obliged to pay 500 dollars damages. The case was made the subject of an appeal, but the judgment was sustained. This recalls the case of a boy who died while under the influeuce of nitrous oxide, being suffocated by a molar tooth, which slipped out of the forceps, and became impacted in the larynx. In such cases, a dentist should both be competent and willing to perform tracheotomy, for the patient will generally die of suffocation before a surgeon can be summoned.—*Philadelphia Med. Times*, Nov. 17.

Medical Women in the Olden Time.—It is not only at the present time that the Hippocratic art numbers its disciples among the female sex; for the *ancien regime* was quite familiar with the professional equality which the Press of our day chronicles as a novelty. For example, we have only to consult the *Calendrier Historique de la ville de Lyon* for 1735, to find at the end of a list of the 43 *maîtres chirurgicus*, and preceding that of the apothecaries, a list of 13 widows of surgeons. It would appear that at that period it was admitted that professional knowledge could be transmitted by cohabitation, inasmuch as these widows had the right to practice after the death of their husbands.—*Lyon Medical*, Jan. 13.

COMMUNICATIONS RECEIVED—

PROFESSOR LATHAM, Cambridge; Mr. CLEMENT LUCAS, London; Mr. HENRY MORRIS, London; Mr. BERKELEY HILL, London; Dr. PAUL KOVALENZKY, Charkoff, Russia; THE SECRETARY, ROYAL INSTITUTION, London; THE REGISTRAR-GENERAL FOR ENGLAND, London; Dr. MAHOMED, London; Dr. J. W. MOORE, Dublin; Dr. C. M. CAMPBELL, London; Mr. J. BELLAMY, LOCAL GOVERNBOARD, London; THE EDITOR, "THE SANITARY ENGINEER," London; Mr. SHIRLEY MURPHY, London; THE SECRETARY, APOTHECARIES' HALL, London; Mr. J. T. W. BACOT, Seaton; THE EDITOR, "SCIENCE MONTHLY," London; THE EDITOR, "BOSTON MEDICAL AND SURGICAL JOURNAL," Boston, U.S.A.; THE PRESIDENT, CENTRAL VETERINARY MEDICAL SOCIETY, London; Dr. HEBB, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE HON. SECRETARY, THE MEDICAL SOCIETY OF CHARING CROSS HOSPITAL; THE WARDEN, LONDON HOSPITAL MEDICAL COLLEGE; Dr. SHELLY, Hertford; Mr. T. M. STONE, Wimbledon; THE EDITOR, "GAZETTA DEGLI OSPITALI," Milan; THE SANITARY COMMISSIONER FOR THE PUNJAUB, Lahore; Mr. GILBERT BOWICK, Bedford; THE HON. SECRETARY, PHILOSOPHICAL SOCIETY OF GREAT BRITAIN, London; Dr. GIBBONS, London; THE HON. SECRETARY, MEDICAL SOCIETY OF LONDON; THE SECRETARY, ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; THE HON. SECRETARY, MEDICO-PSYCHOLOGICAL ASSOCIATION, London; Dr. THOMSON, Glasgow; THE SECRETARY, MICROSCOPICAL SECTION, MANCHESTER MEDICAL SOCIETY, Manchester; THE SECRETARY, SOCIETY OF ARTS, London; THE SECRETARY, PARKES MUSEUM, London; Dr. THOMAS DUTTON, Sidlesham, Chichester; Mr. JAMES DIXON, Dorking.

BOOKS RECEIVED—

The Encyclopædic Dictionary, Part I.—A System of human Anatomy, by Harrison Allen, M.D. (Section V.)—New Commercial Plants and Drugs, by Thos. Christy, F.L.S., F.S.C.I., &c.—The Life Almanack and Diary of the Briton Life Association, Limited, 1884—Medical Thoughts of Shakespeare, by B. Rush Field, M.D.—Cure of Intemperance, by W. Abbotts, M.D.—The International Encyclopædia of Surgery, by John Ashhurst, jun., M.D.—Report on the London Water Supply—Illustrations of Clinical Surgery, by Jonathan Hutchinson, F.R.S., Part XVI.—Annual Report of the Manhattan Eye and Ear Hospital, New York.

PERIODICALS AND NEWSPAPERS RECEIVED—

Revue de Chirurgie—Revue de Médecine—Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hopitaux — Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine — Pharmaceutical Journal — Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature —Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt fur Gynakologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal — Students' Journal and Hospital Gazette —New York Medical Record—The Journal of the British Dental Association—The Edinburgh Clinical and Pathalogical Journal—Journal of Cutaneous and Venereal Diseases—The Asclepiad—The Hawke's Bay Herald—Tijdschrift Voor Geneeskunde—Gazette Degli Ospitali—Revista de Ciencias Medicas—The Sanitarian—The Canada Lancet—Archivio di Ortopedia—The Dublin Journal of Medical Science—The American Journal of the Medical Sciences—North Carolina Medical Journal—The Saturday Review—The Therapeutic Gazette—Nordiskt Medicinskt Arkiv.

APPOINTMENTS FOR THE WEEK.

January 28. *Monday.*

THE MEDICAL SOCIETY OF LONDON.—The President (Sir Joseph Fayrer) will read a Paper "On Snake-Poisoning: its Nature and Treatment, with a Fatal Case of Snake-Poisoning."

29. *Tuesday.*

ROYAL INSTITUTION, 3 p.m. Mr. A. Geikie—"Scenery of the British Isles."

31. *Thursday.*

ROYAL INSTITUTION, 3 p.m. Professor Pauer—"Music for the Pianoforte, &c."

THE PARKES MUSEUM, 5 p.m. Lecture by H. A. Darbishire, F.R.I.B.A., "On Artizans' and Labourers' Dwellings."

February 1. *Friday.*

ROYAL INSTITUTION, 8 p.m. Professor Max Müller—"Râjah Râmmohun Roy."

THE MEDICAL SOCIETY OF CHARING CROSS HOSPITAL, 8 p.m. Mr. F. A. Saw—"On Homœopathy."

2. *Saturday.*

ROYAL INSTITUTION, 2 p.m. Professor Morley—"Life and Literature under Charles I."

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MEDICAL TIMES
AND GAZETTE.

No. 1753. LONDON, SATURDAY, FEBRUARY 2, 1884.

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CLINICAL LECTURES

By J. MATTHEWS DUNCAN, M.D., F.R.S.,

Physician-accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

LECTURE V.—AMENORRHŒA AND VICARIOUS MENSTRUATION.

NOW-A-DAYS, we do not regard amenorrhœa as a grave disease, as our immediate ancestors did. Their views are, by inheritance, represented now chiefly by the opinions prevalent among women. As a rule, women do, in all circumstances, regard amenorrhœa as, in itself, a grave disease, pregnant with manifold and multiform disaster. The erroneous medical opinions of the public are a source of much evil, not to the public only, but specially also to the profession; and the errors have generally been impressed on the public mind by the doctors themselves, who find the uprooting of them a very slow process. Error is pregnant with evil fruit, produced now and ages hence. The doctors sow the wind and reap the whirlwind.

It may be doubted whether amenorrhœa is ever more than a negative symptom. Certainly, except perhaps in some exceptional instances, it should be regarded neither as a disease nor even a disorder. Often, as in wasting diseases, it is a beneficent arrangement, saving for the sufferer a considerable amount of energy and of blood. There are indeed many delicate weak women whose health would be improved in every way if they had amenorrhœa; and some modern enthusiasts would, for such women, recommend the operation of spaying. Many cases of so-called dysmenorrhœa are simply cases of ill health induced by menstruation; the weak girl has no energy to spare even for the normal process; when the time comes round, she gets languid, dark areas surround her eyes, her back aches and she is a patient; not, as she ought to be, a vigorous blooming woman, fit to endure menstruation, and fit also to go successfully through the tedious processes of pregnancy, parturition and suckling. In such women menstruation may be, almost truly, described as disease, just as pregnancy and parturition frequently are.

I do not, meantime at least, teach you that there is no such disease or disorder as amenorrhœa. The matter is as yet not clear enough for decided yea or nay. Two sets of cases occur where the amenorrhœa is probably morbid. First: you meet with healthy, robust women, who have for years menstruated regularly, and perhaps even borne a small number of children, and who now, while still young, do not menstruate. Such cases of annihilation of at least the visible parts of this process, and probably also of the ovulation or invisible part, seem to be no more: an arrest of a function which is justly expected to go on regularly in all healthy women, a sluggishness of the whole genital

system. Any disease or disorder complicating such amenorrhœa is likely to be regarded as a cause or as a consequence of it. Second: you have cases of bad health and specially of anæmia or chlorosis where the disorder is probably in some nervous genital centre, and whose chief manifest result is amenorrhœa. Anæmia or chlorosis from any cause may induce amenorrhœa; but there is a large class of cases where chlorosis seems to be not the cause of the amenorrhœa, but probably the result of it or rather of that derangement of nervous system which is evidenced by the amenorrhœa and chlorosis. In such cases you expect good from re-establishing (if you can) the menstrual function. Its return to regularity seems to bring with it a healthy hæmatosis. It is not cases of chlorosis only, in which this kind of amenorrhœa is believed to be present, cases also of dyspepsia, of constipation, of anorexia nervosa, and of other nervous disorders.

The commencement of menstruation may be long delayed, or the function may never be established—emansio mensium—a condition often the result or accompaniment of bad health, always a very important matter in social respects. Such women may have no internal genital organs, or only part of them, or only imperfectly developed organs; and there may be no ground for suspecting imperfection, the women being vigorous, and in all other respects fine specimens of the race. Of this you may remember a case lately in "Martha," where we could detect no genital organs internally by careful examination. Treatment for emansio is generally set agoing early and pursued diligently; and soon the question arises, how long is it to be pursued? There is little difficulty in the earlier years if the girl is chlorotic or otherwise in bad health, for these conditions urge the practitioner. There is little difficulty also, if the girl is ill developed in her general bodily figure, if she is still plainly a mere girl. But it soon, in all cases of entire absence of menses, becomes desirable to know whether or not she can menstruate or should be expected to menstruate; and this especially in robust healthy women. In any case it is common to delay local examination till the age of 19 or 20 is reached, and then it is done only with the approval of the patient. But necessity for examination may be precipitated by a proposal of marriage. A woman is not wise to marry who has imperfection of the genital organs. In ordinary circumstances regular menstruation is held as sufficient evidence of perfection. When menstruation has not been commenced it is necessary to make examination to ascertain if they are perfect in form and size so far as examination can decide. If they are well sized and well formed it is still a matter for consideration whether or not the married state should be entered upon. Were it certain that a woman who has never menstruated cannot bear a child, she should not be married, but it is known that, while pregnancy is not to be expected, it yet may occur and be successfully carried on.

I have said that the establishment of menstruation is held, in ordinary life, as sufficient evidence that a woman is marriageable so far as her genital organs are concerned. But this is not a warranted conclusion, and it remains as a practical guide only, because imperfection is very uncommon, and still more rare in women who menstruate. It is a very interesting and still unsolved question—how small a womb can be successfully pregnant. Certain it is, that a very small one may be unsuccessfully pregnant. Long ago I published a case, where the womb was well ascertained to be not above two inches in length from os externum to inside of fundus. This woman was repeatedly pregnant, and had early abortions, and in one of these, which I examined, there was marked hypoplasia of the decidua. Under the influence of repeated pregnancies the woman's womb did not increase in size—it remained an undersized organ. It has been fondly imagined that a womb may be made to grow—a natural or healthy growth—and to menstruate—not merely bleed a little—by irritating it with intra-uterine pessaries: but there appears to me no rationality in such expectations, and I advise you not to resort to such treatment. There are other evident objections to it besides the danger of it inducing inflammation, and even causing death. If repeated pregnancies do not make a womb grow to its natural bulk, a rod of metal inserted into it is not likely to make it grow or to do anything but harm.

While, with the restriction stated, regular menstruation is held as evidence of marriageableness, you must not hold that absence of menstruation is proof of the opposite. A woman may have every quality or attribute of marriageableness who menstruates irregularly, or rarely, or even who has never menstruated at all.

The commonest form of amenorrhœa is that of young girls still in their teens, or only lately past them, with chlorosis or green sickness as well as cessation of menstruation; and, whatever may be the true theory of such cases, we, in practice, regard and treat them simply as cases of chlorosis. The condition is very frequent among girls brought from the country to boarding-schools in town, or to domestic service; both modes of life implying a large amount of work, with deficiency of open fresh air and of bodily exercise. In whatever manner produced, the disease is of great importance, leading, as it sometimes does, to disease of the heart, to renal disease, or to phthisis pulmonalis.

The girl becomes languid, the skin, especially of the face, becoming pale and dull, or even very slightly greenish, the lips and mucous membranes generally pale, the appetite bad or curious, the tongue foul, the bowels torpid, the fæces scanty, dark coloured, hard, the pulse quick, the heart easily made to palpitate, the breath easily made short. Sometimes there is puffiness of the face, and particularly of the eyelids; and sometimes anasarca, affecting, of course, chiefly the lower limbs. This state may disappear quickly, or be easily cured; or it may persist long, or be only partially cured. Some cases do not get right till after one or more pregnancies. Some cases become inveterate, or are so from the first—and there have been found, in some rare instances of this kind, malformations of internal organs, specially of the heart and arteries.

Of quite another pathology, are cases of what is called suppression of menses. This has nothing to do with anæmia or chlorosis, but rather with morbid congestion or inflammation of the internal genital organs. A girl in the early days of menstruation, or in the days immediately preceding, is exposed to cold, it may be has had wet and cold feet: the flow of menses is quickly and prematurely arrested, or does not come on: there is more or less pain in the lower belly and sacrache: there may be more or less of fever. Amenorrhœa thus suddenly begun may not recur, or it may persist for many months, or instead of amenorrhœa there may be great irregularity of menstruation.

Such cases are to be managed and treated as cases of more or less grave inflammation—confinement to bed, laxatives, diaphoretics, poulticing the hypogastrium. Free loss of blood by menstruation is desirable, and the poulticing may favour it: or, if it does not come, three or four leeches may be applied to the perineum. When the next molimen menstruale shows itself, great care is to be to taken to encourage the appearance of the menses and promote copious flow, by rest and warmth.

The aim of treatment in amenorrhœa by suppression, is to moderate or diminish congestion. In ordinary amenorrhœa, from uterine sluggishness, or from chlorosis, the aim is to stimulate the generative organs, to produce or increase congestion. Cases of this latter kind may be completely amenorrhœal, or the menses may be scanty, or, instead of bloody discharge, there

may be only temporarily increased mucous discharges —whites. There may be a molimen or no molimen. When there is said to be a molimen or attempt, the girl expects the flow, or knows by her feelings that it should come : the feelings being scarcely describable, often backache or sacrache, or aching in the thighs, or headache, peculiar feelings in the throat, dark areas appearing around the eyes. All this is regarded surely as a molimen if it comes at the proper calculated monthly time. In the worst cases there is no evidence of molimen whatever.

If there is a molimen it is common to invite the flow by treatment—popular, old, sanctioned by Hippocrates. The feet are plunged in water as hot as it can be borne, and it is common to make the stimulus more lasting by adding mustard to it. After this pediluvium, the girl is made warm in bed and has a pretty strong dose of alcohol in some pleasant form—gin and hot water and sugar being a favourite ; and it gets the grand medical designation of a diffusible stimulant. Often this is followed by the desired result. The modern introduction of hip baths has led to the frequent substitution of these for the Hippocratic pediluvium, and I believe this is a mistake ; it is the pediluvium that has virtue, not a full bath nor a hip-bath.

In addition to this treatment of the molimen it is common to give for two or three days, that is, while the molimen lasts, some other stimulant which appears to favour the appearance of the flow or to increase its quantity. There are many in use. That which I like best is oil of pennyroyal, a drop in some vehicle several times a day.

When a woman has the molimen she is held to be truly menstruating in all respects except that blood does not flow. Treatment may be useful, and be, in a very limited sense, described as emmenagogue, driving out the menses.

When there is no molimen you are told to treat by emmenagogues, and I believe this is not desirable. There are indeed no emmenagogues, for that word implies not mere favouring an expected and imminent flow as announced by a molimen, but the production of menstruation, molimen, flow, and ovulation, all together by specific medicines, not by erotic excitement or improvement of health.

If you give an amenorrhœal woman savine or cantharides in large doses, the most powerful of so-called emmenagogues, you may, no doubt, cause blood to flow from the womb ; but this is not only a caricature of menstruation, it is also an unmixed injury to the woman. The same medicines given to man or woman may cause strangury and hæmaturia, and that is not menstruation ; nor is metrostaxis or bloody flow from the womb. Equally unreasonable are attempts to induce menstruation by scarifying the cervix uteri, or by cupping the interior of the body of the uterus.

I have told you that we do not know any drug that has a really emmenagogue action in the sense of originating or favouring the healthy complex proceedings of which menstrual flow is a part. The pharmacopœia has many, but they are not be trusted, rather eschewed. The only emmenagogue medicine that I know is not to be found in the pharmacopœia : it is erotic excitement.

Of the value of erotic excitement there is no doubt, but it is only in a modified and carefully considered way that you can use it remedially. There are many points at which medicine and morals come into contact, and their consideration is most important. A long lecture might indeed, with great advantage, be given to you describing the mutual relations of the one to the other, and especially, with a view to our present subject, the therapeutical power of morals in medicine and the therapeutical power of medicine in morals. I pass it all over, only asking you to be in a high sense wise in your meddling in such matters.

3

In ordinary practice the physician trusts almost exclusively to means for restoring and maintaining general health, and in particular to remove the chlorotic condition or restore the function of blood-formation. He has to enter fully into matters of education—of diet—of regimen. He regulates the bowels by what are called warm purgatives—myrrh and aloes. He persistently administers chalybeates in varied forms.

The woman's plan, or her mother's or guardian's, is to re-establish menstruation, being sure that, if this is done, all will be right, all disorders will disappear. The wise practitioner does, in most cases, recognise the restoration of menses as the harbinger of cure of all the intertwined disorders ; but his theory is not that of the mother or guardian. His plan is to re-establish the general health, being sure that, when this is done, menstruation will reappear and the connected disorders disappear.

Finally, remember that sometimes, in chlorotic cases, menorrhagia takes the place of amenorrhœa ; and this kind of case is worse than the amenorrhœal. The watery blood flows too copiously. The watery blood favours the menorrhagia, and the menorrhagia increases the wateriness of the blood. A vicious circle.

Before concluding I shall add a few remarks on vicarious menstruation. Lately we had a case sent us of a young girl whose adviser regarded a recurrent copious spotted purpura, as an example of the disease, and as an object of interest we kept her in "Martha" for many weeks. The purpura quickly disappeared under our good diet ; but the girl did not menstruate, and there was also no reappearance of the rash. Besides, its history shewed no regular periodicity.

It was long, and till recent times, generally believed that by menstruation a woman got rid of some poison, and that Nature, failing to get it out in the natural way, sometimes succeeded in eliminating it by bleeding from a vicarious channel—the skin, an ulcer, the stomach, the lungs, or any part. This was vicarious menstruation ; and in my opinion it is high time to give up the whole disease as a tissue of error if not of absurdity. I have all my life been on the look-out for it, but I have never seen an example, and do not expect to do so. Many cases so-called have been brought under my notice, but none have survived a criticism of the simplest, not of a rigorous kind. Some cases have been coincidences, some bad or not sufficiently careful observations, some ludicrous mistakes. Of these last I may mention one sent to me by an eminent obstetrical friend who knew my incredulity. She had had amenorrhœa for six months, and had spat blood, it was said, every four weeks during the same six months. I asked her to come to me when the hæmoptysis returned. She did come, but the hæmoptysis had not returned. She said it did not regularly come at the four week times, and she expected it soon. I found her seven months pregnant and in perfect health.

No doubt bleedings may occur at what should be menstrual times, or at actual menstrual times, but that is far from being any kind of menstruation or representation of it. If there is a surface weak or predisposed to bleed, it may bleed during the excitement of a period, especially if it is the case that before or at the time the general blood pressure is increased. Such bleeding is not vicarious menstruation in any sense worthy of consideration.

DUNDEE SANITARY ASSOCIATION.—A society with this name has been formed at Dundee, the object of which is to enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested, as well as to ensure the proper sanitary condition of their own dwellings, and to promote sanitary reform.

CONSIDERATIONS CONCERNING THE HYPOTHESIS OF NERVE-CENTRES, LEADING TO OBSERVATION AND EXPERIMENT.

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In the attempt to deal with an intricate problem, it is necessary to establish a mode of procedure, or definite line of enquiry, and for this purpose a working hypothesis is often wanted. Such an hypothesis is not necessarily intended to express an ultimate truth, but is intended, according to the knowledge possessed at the time, to be the best means available of expressing ideas as to what appears to be the truth, or at least a doctrine closely connected with the truth.

Thus, in speaking of nerve-centres in the brain, we do not here wish to express the belief that these necessarily exist as localised anatomical areas of brain tissue separate from the surrounding nerve-mechanism, although this may be true; I think that we may frame a definition without implying such anatomical isolation as an essential fact. The term nerve-centre is here used to imply "a portion of the nerve-mechanism, which can act more or less independently of the rest, and which by its activity produces certain more or less definite motor, or other effects, observable and separable from those of the rest of the central mass of the nerve-mechanism."

An hypothesis is useful, if it leads to systematic experimentation, and the record of observations, and I trust to be able to show that certain propositions may be defined and investigated by means of this working hypothesis. The form in which the definition or explanation of the term "nerve-centre" has been given makes a tacit assumption. It may be well to put forward as a postulate the assumption implied. It may be asked, how can we tell whether any portions of the central nerve-mechanism do act alone independently of the rest, as is tacitly assumed in defining a nerve-centre?

The postulate involved is as follows:—

Postulate I. "If we see some limited and definite nerve-muscular action often repeated, in the same and in different subjects, we may assume that there is some nerve-centre, or portion of the nerve-mechanism corresponding, which can and does act independently of the rest."

No movement can occur without a stimulus from some nerve-cells. The assumption is made that not only does one centre produce one set of movements, but also that the particular set of movements indicates the action of that particular centre. This assumption is also made in the ordinary methods of localising brain lesions and brain functions. In order to be quite clear in proceeding to a practical method of enquiry, we may repeat the last statement in the form of a postulate, one that is by most taken for granted.

Postulate II. "In conditions of health, one centre produces by its activity one particular set of movements which result from its action. Conversely the recurrence of that particular set of movements usually implies and indicates the activity of that particular nerve-centre whose action corresponds to those movements."

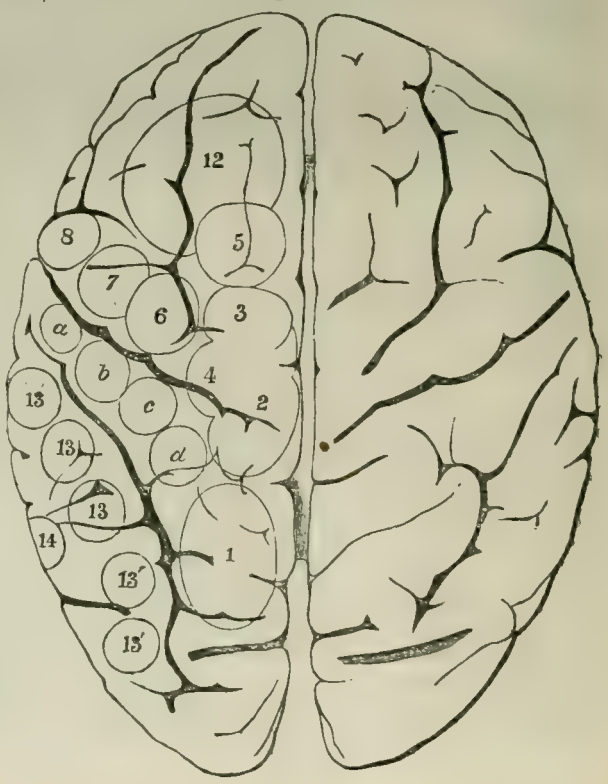
There is a slight difference in the mode of expression used in the paragraph above and in Postulate I.: it seems to me a point as yet not settled for all cases, whether it be certain that one kind of movement can only be produced by one centre; there appears much evidence to the contrary. It seems, however, exceedingly probable that the same movement may often be produced by different portions of nerve-mechanism in disease; still it seems likely that in health the same movement implies the activity of the same centre, for it is not likely that the same movement is produced with equal ease and economy by two different centres, and under ordinary circumstances the centre which most easily performs the work would act most spontaneously. It is not suggested that in all cases, and under all circumstances, one portion of the nerve-mechanism necessarily corresponds to, and sends motor force to, only one set of muscles, but that one part of the nerve-mechanism always produces the same movements *when it acts alone*, and that a simple isolated movement is usually the outcome of the action of the same centre.

It is assumed, then, that there exists a special centre, consisting of a group of cells, or a more or less independent piece of nerve-mechanism corresponding to each isolated movement. The probability of this being true is strengthened in any individual case where it can be shown that there are examples of isolated paralysis and examples of isolated excitation of such hypothetical centre.

Excitation of certain brain areas produces well marked muscular movements, and this indicates, if the data be reliable, the site of the centre corresponding to these movements. The same brain centre may be irritated by a pathological lesion demonstrable *post mortem*, the irritation causing muscular contraction, while a destructive lesion may cause paralysis of the same muscular movements as were active when the centre was irritated. So in Ferrier's experiments, irritation of a centre caused contraction in certain corresponding muscles, destruction of this centre caused palsy of the same movements. Here the definite nerve-muscular movement indicates the action of a definite or local area of brain or nerve-centre.

Fig. III. is from a block kindly lent me by Dr. D. Ferrier. (*See* his work, "The Functions of the Brain.")

Fig. III.



Upper surface of the brain, (7) and (8) centres for the elevators and depressors of the angle of the mouth respectively, (11) the centre of the platysma, retraction of the angle of the mouth. (*See* Ferrier's work, p. 143.)

In the Postulate I. it is assumed that every nerve-muscular movement is due to the action of a nerve-centre.

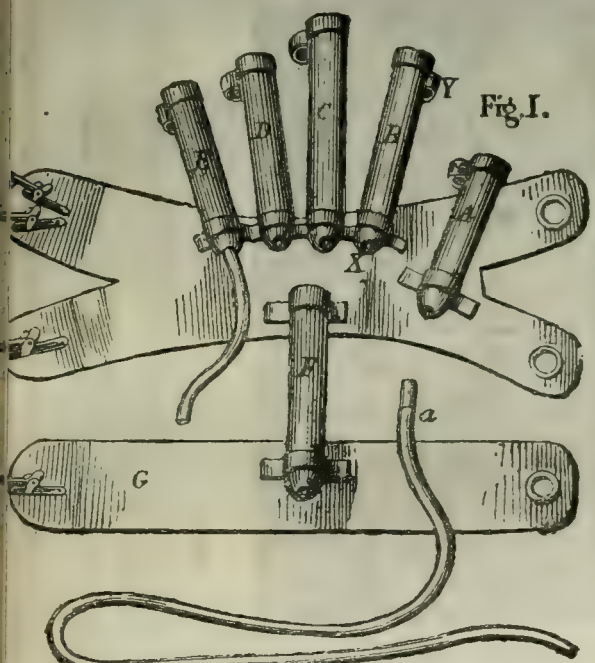
Now to further illustrate the postulates, and the propositions to which they lead us. A man can hold out his arm, then bend his wrist to any angle within anatomical limits, and keep it rigid in that position. It will be granted according to the postulates that this power of movement is due to the nerve-muscular system, and that some portion of the central nerve-mechanism must be the active cause of this movement, also that some nerve-centre must be the cause of the active fixed condition shown in the balance of the muscles producing the wrist posture.

Again, while the wrist is thus held bent, one finger can be flexed and moved separately and independently, showing that the nerve-centres for the movements of each finger can act separately and independently of the nerve-mechanism for the movements of the wrist.

Before discussing certain physiological propositions, it may be as well to say a few words as to the experimental methods which it is proposed to employ in trying to solve such problems.

The apparatus[1] employed consists of :

Fig. I.



1. A "motor," made of india-rubber, to be attached to the hand, one tube to each finger, or moving part (Fig. I, A, B, C, &c.). From these, pieces of thin conducting-tube (*a*, *b*, *c*) carry air to a set of recording tambours.

2. A frame supporting the recording tambours and electrical signals (Fig. II.).

Several propositions concerning nerve-centres of practical physiological interest may now be advanced.

1. Are there many nerve-centres that can, and often do, act separately and independently of each other?

[1] Towards the expenses of this apparatus a grant was made by the British Medical Association, on the recommendation of the Scientific Grants Committee.

Fig. V.

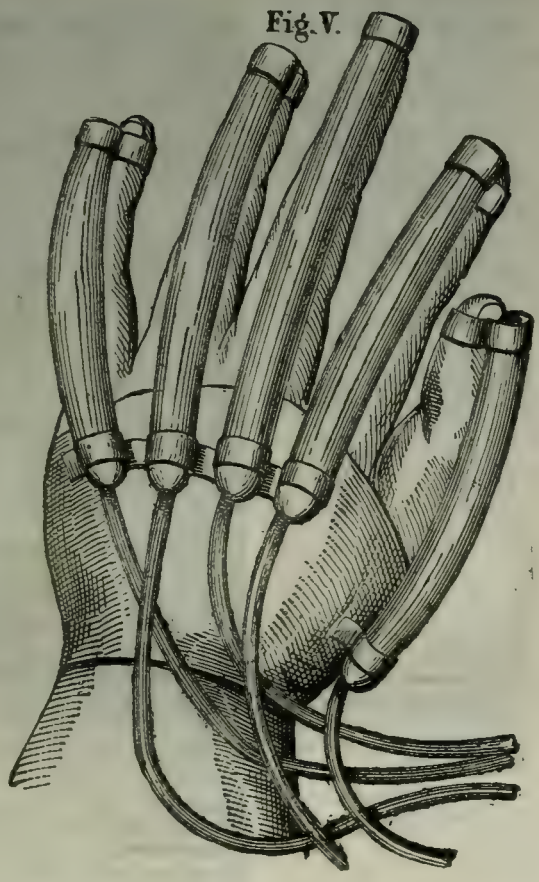
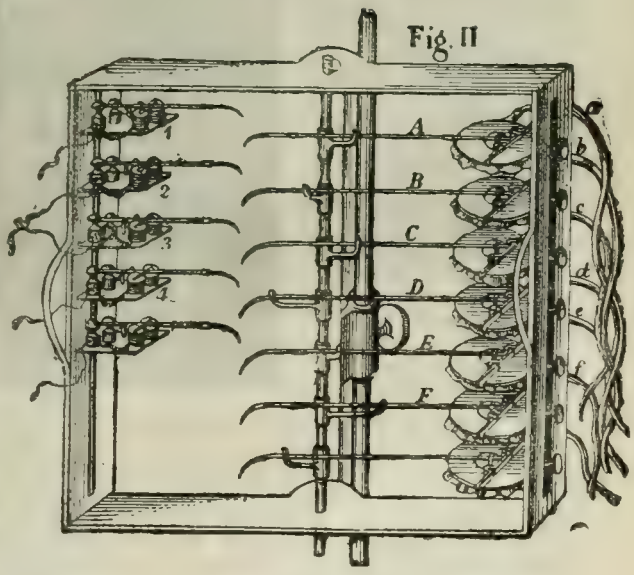


Fig. II



According to the postulates, each separate movement that can be performed independently, corresponds to a certain nerve-centre; each finger can be bent separately, hence each finger flexion shows the activity of the centre corresponding in time and degree. Separate finger movements show the activity of separate centres, coincident finger movements show the coincident activity of the several centres.

*

Tracing 1 shows the coincident tracings of five different digits. Each line corresponds to the movements of one tracing needle, the needle being moved by the bending of the finger tube with which the tambour of the needle is connected. Separate actions and coincident actions are indicated by the tracing. I have also arranged a mechanism which will enumerate on dials the separate actions and combinations of actions. (*See Journal of Physiology*, vol. iv., No. 2.)

2. Do we use many separate nerve-centres in a voluntary act? This may be experimentally shown by applying the motor tubes to the moving parts, thus obtaining lines corresponding to the movements of each part respectively, each finger, wrist, elbow, &c.

3. Is there a different physiological significance in the action of the centres governing the movements of large joints and small joints? The latter are often damaged by lesions that do not perceptibly interfere with the power over the large joints. In an experimental investigation we should note clinically the conditions and circumstances of the subject, while taking simultaneous tracings of movements in the different parts.

4. Is there any special significance in the action of the centres causing the movements of collateral parts, such as the fingers, specially considered as to whether they act coincidently or independently. (*See* "Brain," Oct., 1883.)

5. Which centres are the most automatic, *i.e.*, the most frequently seen in spontaneous action? We may take as the criterion of the automaticity of a nerve-centre, the frequency with which it acts spontaneously. The attempt must then be made to define what is meant by "spontaneous action." The term "spontaneous action" is used to imply that the muscular action is believed to be due to a stimulus originating in the nerve-centre, due to the intrinsic vital nutrition of the nerve-mechanism, not due to reflex action. Automatic actions are those due to the intrinsic nutrition of the nerve-centres, and are not reflex. In making observations to determine the frequency of some nerve-muscular movement that is apparently performed spontaneously, we may proceed thus :—

(*a*) Look at the subject, observe and note what nerve-muscular movements are most frequently repeated without any coincident stimulus from outside, and without the removal of any external inhibitory influence. Such observations may be made by the graphic method and process of enumeration.

(*b*) Observe the subject when in special conditions, such as sleep, when under the influence of chloroform, in coma from disease, and in other conditions in which it is known that the subject is less receptive to the effects of external influences, and note the relative frequency of certain nerve-muscular movements under these circumstances. As an example, in coma horizontal movements of the

eyes are more frequent than those in the vertical direction, and they may therefore be said to be the most spontaneous or automatic.

6. Observation may be made showing how spontaneous movements are modified or inhibited by external agencies.

TRACING 6 (p. 3), showing how the automatic or spontaneous movements of an infant were inhibited by a strong light.

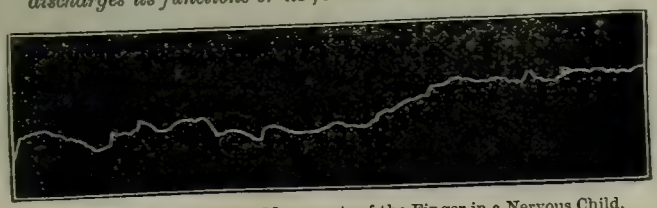
Spontaneous movements are the most numerous in kind, and the most frequent in infancy, less frequent in adult life. It seems probable that the spontaneous nerve-muscular movements in the adult are the remnants or survival of the spontaneous movements of infancy.

7. With the aid of the hypothesis of nerve-centres various problems may be stated, and the terms of each reduced to such form of expression, according to the hypothesis, as to enable us to submit it to direct observation and experiment.

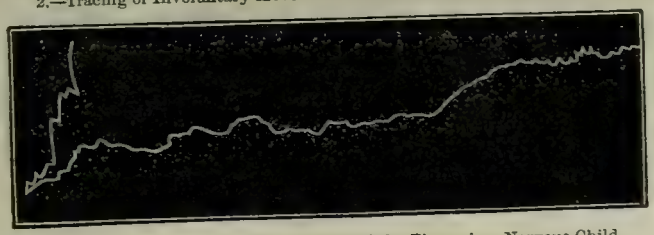
A part of the intrinsic vital history of a nerve-centre is indicated by the rhythm of the periods at which it discharges its functions or its force.

8. In the case of a motor nerve-centre, or a centre having motor function, we obtain a knowledge of this rhythm of its function by taking a graphic record of the nerve-muscular movement resulting. Histology by itself cannot demonstrate such properties. When the rhythm of the discharge of the motor function of a nerve-centre has been determined we may make another set of observations to try and determine whether its other functions follow a similar rhythm in the order of their discharge.

9. The varying conditions of a given motor-centre may be noted. Consider a special group of muscles, say, those elevating the angle of the mouth on the right side. The movements of these muscles are nerve-muscular signs of the action of the motor-centre, or centres corresponding. (TRACING 3.) The varying conditions of these nerve-muscular signs show the varying conditions of the nerve-centre. We may examine the condition of this centre in the subject under varying conditions, by comparing these nerve-muscular signs in chorea, hemiplegia, hemispasm, chronic tic, &c., in a patient under nitrous oxide gas, in awkward nervous people, &c. (TRACINGS 4 and 5.)

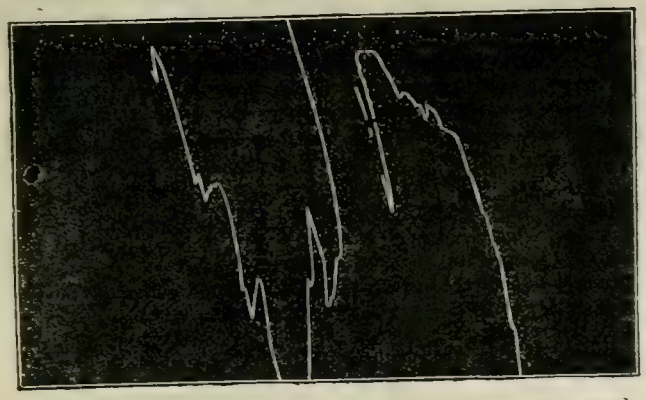


2.—Tracing of Involuntary Movements of the Finger in a Nervous Child.



3.—Tracing of Involuntary Movements of the Finger in a Nervous Child.

4.—Tracing of Finger Movements in Chorea.



5.—Finger-Tracings in Chorea. The twitching movements are compound.

Thus: In observing these special movements there may be—

(*a*) Variation in the spontaneous discharge of motor force at different times.

(*b*) From time to time there may be alteration in the rhythm of the movements, or loss of all rhythm, so that all that is observable is the frequency of the discharge of the centre in given periods of time.

(*c*) The nerve-centre may be active or inactive.

(*d*) Motion may vary as to its quantity.

(*e*) There may be a change in the function of a nerve-centre. In the development of a child its hand loses its spontaneous movements, but grows in mentation and intelligent voluntary power of manipulation.

(*f*) Is the centre liable to discharge by reflex action? This would be observed by noting the frequency of a special movement occurring coincidently with, or independently of, the action of a special external stimulus.

(*g*) Is the centre greatly under the influence of inhibition?

The Tracing 6 represents the movement of the finger of an infant five months old. Spontaneous muscular movements are occurring all over the body, and these are arrested or inhibited by the action of light and sounds.

Having referred to the vital history of a nerve-centre, we may consider some propositions concerning a group of centres.

We may study the action of a group of nerve-centres, and observe the action of each member of the group.

Take the group of centres which cause movements of the two upper extremities; this group for the upper extremities may easily be divided into two, one for either arm, each limb can move separately, therefore each of these sub-divisions can act separately.

Again, consider the group of centres for the right upper extremity, and it will be seen that the centres for the muscles of shoulder, elbow, and wrist, can act separately or in combinations. Further, und

circumstances the fingers move separately, at other times the centres for the muscles of all the fingers act synchronously or in combination.

Such observations as those here given, if made exactly and carefully, appear to demonstrate that in a group of nerve-centres we may have a separate action of each centre, or we may have certain combinations of nerve-centres acting synchronously. If in a given case we consider only a certain number of centres, we can have only a fixed certain number of possible combinations. If we consider n centres, the number of possible combinations in synchronous actions is represented by 2^n.

Again, the order of successions of the combinations of nerve-centres in synchronous action may be observed and recorded. There is no limit to the variations of order of successions or sequences, and no mathematical formulæ can express the successions.

ON THE NATURE OF SNAKE-POISON;

ITS EFFECTS ON LIVING CREATURES, AND THE PRESENT ASPECT OF TREATMENT OF THE POISONED.[1]

By SIR JOSEPH FAYRER, M.D., K.C.S.I.,

President of the Medical Society of London.

It was his purpose, Sir Joseph Fayrer said, to describe the nature and the mode of action of snake-poison in living creatures; and being most familiar with the Ophidia of India, he would select some illustrations from that source, especially as it afforded typical examples of snakes which were endowed with this terrible power of destroying life. The order Ophidia had three subdivisions: — 1. Ophidia Colubriformes (innocent). 2. Ophidia Colubriformes Venenosi. 3. Ophidia Viperiformes. The two latter were all poisonous—they were the Thanatophidia, and well merited this name in India, where they destroyed probably 20,000 human beings annually.

The general anatomical structure and distinctive characters of a snake were well known, but he would ask them to notice certain differences between:— 1. An innocuous and a poisonous snake. 2. Between a poisonous colubrine and viperine snake.

Snakes were provided with sharp re-curved teeth, which were fixed in the maxillary, palatine, and pterygoid bones; by the form and arrangement of these teeth, poisonous might be detected from innocent snakes. The harmless snake had two complete rows of ungrooved small teeth, one outer or maxillary, and one inner or palatine row; in the majority, there were from 20 to 25 teeth in the outer row. In the venomous snakes, the outer row was represented by one or more large tubular fangs, firmly ankylosed to the maxillary bone, which was movable, and, by its movement, caused the erection or reclination of the fang, so marked in viperidæ. In the innocent snake, the maxillary bone was elongated, and gave insertion to a row of teeth; in the poisonous colubrine, it was much shorter, giving insertion to only one or more teeth, the anterior and largest of which was the poison-fang. In the viperine snakes, the maxillary bone was reduced to a mere wedge, giving insertion to a long curved and tubular fang, which was a much more formidable weapon than the fang of the cobra, or other colubrine snake. These fangs, when reclined, were covered by a sheath of mucous membrane, in which lay also several loose reserve fangs, in different stages of growth. When the working fang was lost by accident, or was shed, one of the reserve fangs took its place, becoming fixed to the maxillary bone, and placed in communication with the duct of the poison-gland.

The teeth varied considerably in the different subdivisions of the order. They were described as being perforated. Though this was apparently the case, it was not really so. They were dense and compact, enclosing the usual pulp-cavity; but, being folded on themselves, formed either an open groove, as in the Hydrophidæ; a complete canal, as in the Cobra; or a more complete tube still, as in the Viperidæ. During development, the laminated tooth folded like a leaf on itself, and so formed the channel along which the virus was conveyed; and thus the tooth made a most complete hypodermic syringe. The poison was secreted by a conglobate racemose gland situated in the temporal region behind the eye. It was of considerable size, about that of an almond in the cobra, and was furnished with a duct which opened into the capsule of mucous membrane enveloping the base of the fang; the venom thence flowed into the dental canal, and was injected into the wound when the tooth penetrated the bitten object.

As there was good reason to believe that the total annual mortality from snake bites in India was not much, if at all, under 20,000 persons, or roughly about one in every 10,000, the subject was of much interest, and it was as important to humanity as to science to ascertain the nature and properties of the poison, and to discover what might best counteract it.

Snake poison was secreted by glands which represent the parotids in other creatures, and the virus was a transparent, slightly viscid fluid, faintly acid in reaction, and of varying specific gravity. When dried it lost from 50 to 75 per cent. of water, and formed a semi-crystalline substance like gum arabic. It was secreted in considerable quantities, and if a fresh and vigorous cobra were made to bite through a leaf stretched across a spoon or shell, several drops could be thus obtained. Examined under the microscope it was structureless. The poison was exhausted when the snake had bitten frequently, and it was then comparatively harmless; but it rapidly became dangerous again.

After a brief summary of the chemical analyses which have been made of snake poison, Sir Joseph Fayrer proceeded to discuss its effects in the living organism. "The symptoms caused by the venom of the different snakes," he said, "do not differ radically, save in degree, but there are symptoms which suggest that further investigation may bring to light certain differences by which it will be possible to discriminate one form of poisoning from the other. The activity of the venom differs not only in character and intensity in different genera and species, but also in the same individual under varying conditions of temperature, climate, health, and state of vigour or exhaustion at the time. It is a most virulent poison, and it takes effect when absorbed into the circulation, either by inoculation, or as I demonstrated in India (quite against all former and universal belief) when applied to a mucous or serous membrane, proving that it may neither be sucked from a bite, nor swallowed with impunity. It acts most rapidly on warm-blooded creatures, sometimes with lightning-like rapidity, when it enters a vein; it is deadly also to cold-blooded creatures, and to the lowest forms of invertebrate life. Strange to say, and this, to me, is one of the greatest of its mysteries, a snake cannot poison itself, or one of its own species, scarcely its own congeners, and only slightly any other genus of venomous snake, but it kills innocent snakes quickly. It has been ascertained that a vigorous cobra can kill several dogs, or from a dozen to twenty fowls, before its bite becomes impotent, and then the immunity is of brief duration, for the virus is rapidly reformed.

[1] Abstract of an address delivered at the Medical Society of London, Monday, January 28th, 1884.

"Snake poison is a neurotic, and kills by extinguishing the source of nerve energy. It is also a blood poison and an irritant; if applied to mucous and serous surfaces it causes inflammation; absorption then takes place, and the symptoms of general poisoning are induced. It causes great local disturbance, as well as blood change; for, if the bitten creature survive long enough, the areolar tissue may inflame, suppurate, and slough. If it enter by a large vein, life may be destroyed in a few seconds. It was supposed the more active poisons acted by shock through the nervous system; the rapidity with which a poison can be distributed through the circulation would account for the most rapid death from snake-bite. The chief effect is on the respiratory apparatus, and death occurs by asphyxia, but the whole voluntary muscular system is also affected, and general paralysis results; whilst the long continuation of cardiac pulsation after apparent death, proves that it is not due to failure of circulation.

"The action of snake-poison is discussed at full length in the *Proceedings of the Royal Society* by Dr. T. L. Brunton and myself (1872–74–75–78). These researches led us to conclude that the action of the poison is: 1, on the cerebral and spinal centres, especially the medulla, inducing general paralysis, especially of respiration; 2, in some cases (where the poison has been conveyed through a large vein directly to the heart by tetanic arrest of cardiac action, probably owing to action on the cardiac ganglia; 3, by a combination of these causes; 4, by blood-poisoning of a secondary character.

"The phenomena vary according to the nature of the snake, and the individual peculiarities of the creature injured, the chief difference being observed in viperine as contrasted with colubrine poison. The latter is a nerve-poison of great deadliness, but as a blood-poison it is not of much power. Viperine poison, on the other hand, is a more potent blood-poison. Dr. Wall summarises the difference in the action of daboia (viperine) or cobra (colubrine) poison as follows: 'Cobra poison, when introduced slowly into the circulation, produces gradual general paralysis, but at the same time shows a preference for certain nerve-centres; paralysis of the tongue, lips, and larynx being very marked symptoms, and respiration is very quickly extinguished after the paralysis shows itself. Death is often attended with convulsions, which are clearly due to carbonic acid poisoning. Introduced with a fair amount of rapidity, these symptoms are rapidly developed, the paralysis being preceded by gentle stimulation, which causes slight muscular twitchings. Injected in a large quantity into the circulation, the stimulation is so violent as to cause general convulsions, of which, however, the respiratory muscles have the chief share, and which are immediately followed by paralysis and death.

"'The local effects of the poison are partial paralysis of the bitten part, pain, infiltration, swelling, inflammation, and ecchymosis round the spot where the poison has been introduced, and sometimes in other and distant parts, and, if the animal survive for some hours, infiltration and incipient decomposition of the tissues and hæmorrhagic discharges. The general symptoms are depression, faintness, cold sweats, nausea, vomiting, exhaustion, lethargy, unconsciousness. Dogs vomit, and are profusely salivated. They present an appearance as if the hair were "staring." As the poisoning proceeds, paralysis appears in the limbs, and tends to creep over the whole body. Albuminuria (especially in viperine poisoning), hæmorrhagic discharges, relaxation of sphincters, exhaustion, lethargy, convulsions, precede death. In fowls the appearance is that of great drowsiness. The head falls forwards, rests on the point of the beak, and gradually the fowl, no longer able to support itself, rolls over on its side. There are frequent startings, as if of sudden awaking from the drowsy state, then convulsions and death. In cases where the quantity of poison injected is large, and it is at the same time very active (as in cobra), the bitten animal small and weak, or if it have entered a vein, death is almost instantaneous, as from shock. In such case, the cardiac ganglia are probably paralysed; at all events, the heart suddenly ceases to beat.'

"So far, no physiological antidote to snake virus is known, and when the full effect on the respiratory centres is produced, remedies are of little, if any, avail; albeit, when the poison has entered in smaller quantities, treatment may be of service on general principles. Viewing the apparent analogy between curare and snake poisoning, death in both being caused by paralysis of the respiratory apparatus, Dr. L. Brunton and I hoped that, by keeping up artificial respiration and supporting the body temperature, we might keep an animal poisoned by snake virus alive until elimination had taken place, and the result of some experiments justified the anticipation to some extent, for animals were kept alive for many hours, but succumbed at length when the artificial respiration was withdrawn.

"The first and most important indication," continued the lecturer, "is to prevent the poison entering into the circulation; to this all else is subsidiary. The rapidity with which this takes place depends a good deal on the part of the body bitten, and on its vascularity. When the poison enters a vein, if the bite be inflicted by a vigorous snake, the result is generally rapidly fatal. Experiments on animals show that bites inflicted on parts, even where large veins are not implicated, produced their effects so rapidly, that only immediate severance of the part, or complete constriction, prevented absorption. It is necessary, therefore, as quickly as possible, after a bite has been inflicted, to apply a ligature above it, and so tighten it as to completely arrest the circulation. As it happens in 94 per cent. of cases that the bite is inflicted on an extremity, this may frequently be accomplished; but, in parts where no ligature or elastic bandage or cord can be applied, proceed at once to excise the bitten part—this, indeed, should be done in all cases, whether ligatured or not—first, make an incision through the bite, and reflect the skin; expose the tissue wherever that is altered in colour, dissect it out, and be careful to remove every part it; then apply cautery or some escharotic, or the permanganate solution, taking care that it reaches as much as possible in every direction where the poison may have infiltrated. After this is done, the ligature may be relaxed; for, if the virus be destroyed, the danger of its entering the circulation is past. Should it have already entered, as is only too probable, all that can be done is to give stimulants, keep the patient warm, at rest, and, when the respiration begins to fail, use artificial respiration, and endeavour to keep him alive till the poison be eliminated.

"Suction, being unlikely to be of much avail, is practically useless to the patient, and dangerous to the operator, and it should neither be encouraged nor relied on. Insist on the importance of quiet and perfect rest; the temperature should be kept up; the respiration, if it begin to fail, supported by artificial methods. Where the poison has happily been limited to the seat of inoculation, and in cases where no great quantity of virus has been absorbed, we may hope to do good; but, where the poison has entered the circulation in larger quantities, and the physiological symptoms are developed, the prognosis is exceedingly unsatisfactory.

"In the latter case, if the patient become faint or depressed, unconscious, nauseated, or sick, and respiration begin to fail, with symptoms of paralysis of tongue and fauces, mustard poultices, or liq. ammoniæ on a cloth, should be applied on the stomach and heart;

stimulants should be given and the patient kept warm, but not shut up in a hot stifling room, or a small native hut; it is better to leave him in the fresh air than to do this."

Some remarks were next made on the remedial value of permanganate of potash. During his investigation of the value of remedies for snake poisoning, permanganate of potash was not omitted; and a number of experiments had been made; but the result was practically nil.

He agreed with Dr. Wall, "that potassium permanganate destroys the active agent of cobra-poison by oxidising it; but, when introduced into the blood, it of course commences oxidising indifferently all the organic matter with which it comes in contact; but it has no power of selecting one organic substance for oxidation rather than another. The oxidising power of the permanganate is, therefore, exerted on the constituents of the blood generally, instead of being reserved for the cobra poison in it alone; so if cobra poison is dissolved in an organic solution, and the permanganate is added before injection, the poison suffers little if any diminution in strength, for oxidation has taken place chiefly at the expense of the other organic matter. Thus, it would be necessary to destroy all the constituents of the blood by oxidation before all the poison in it could be destroyed too. If a substance should be found having the power of oxidation, with a special affinity of exercising it on snake poison, the problem of the treatment of snake bite would be solved; but potassium permanganate has not the special power."

After reading a letter from Dr. de Lacerda, of Rio de Janeiro, in which this point was discussed, Sir J. Fayrer made a very complimentary acknowledgment of the valuable labours of such Indian observers as Dr. Short, Dr. Nicholson, Dr. Stradling; of Drs. Grant, Richardson, and Wall, of Dr. Halford in Australia, Dr. Lacerda in Rio Janeiro, Dr. Lauder Brunton, F.R.S., and Drs. Weir Mitchell and Reichart, the last two of whom were engaged in the most important and much needed investigations into the chemistry of the poison and the condition of the blood and tissues of the poisoned.

He concluded by making a brief allusion to the case of Col. M., who, while serving in Zululand, was bitten in the leg by a venomous serpent, of which he died in ten hours, all remedies and care notwithstanding. The full details of this case will be found in the next Army Medical Department Report.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CASE OF FATAL FÆCAL OBSTRUCTION.

(Under the care of Dr. EUSTACE SMITH.)

WILLIAM T. R., aged 8 years, was admitted into the hospital on the afternoon of January 4, nominally under Dr. Smith's care. Owing, however, to the boy's somewhat unexpectedly rapid death, he had not the advantage of being seen by Dr. Smith, and for the clinical details of the case we are indebted to Mr. Skete, one of the resident officers who was on duty in the hospital at the time of the patient's admission.

The previous history was as follows:—

His bowels have been inactive from infancy. He has always had a big belly, and has suffered from flatulence, and been accustomed to take purges.

He was an in-patient in the Bristol Children's Hospital in 1881 for seven weeks. While in the hospital his abdomen became smaller. His bowels were afterwards fairly regular for about a fortnight. He has never complained of pain, and was much relieved by passing wind.

The family history is good. His parents have one other child. About the 1st of January this year, his mother noticed his stomach getting larger, and he was brought to the hospital on this account. On admission, his bowels were said not to have acted for a week, the motion then being very small and dark.

After his admission to the hospital, he seemed very thirsty, and constantly asked for milk, which he returned immediately, putting his fingers into his pharynx to induce vomiting. His abdomen during the evening became more swollen, and his feet very cold.

In view of the apparent chronicity of the disease, no immediate danger was anticipated. The boy, however, became very restless about 11.30 p.m., and when in the act of swallowing a sleeping draught of bromide of potassium and hyoscyamus he quietly died. There was no fæcal odour about the vomited matters.

Autopsy:—At the *post-mortem* examination, made by Mr. R. W. Parker, with the assistance of Mr. Arthur Maude, and in the presence of Dr. Donkin and some visitors, the body was found to be well nourished. The abdomen was enormously distended. The lower limbs were somewhat œdematous, especially the left. On opening the body in the usual manner, and after removal of the sternum, the highest point of the diaphragm was found to correspond with the third intercostal space. The heart was very much flattened on its posterior aspect, doubtless between the diaphragm and the chest-wall; its right side quite empty. The lungs were healthy; a small quantity of serum was found in each pleural cavity. In the abdomen was contained a small quantity of slightly turbid serum. The small intestine, which was quite empty, and in all respects healthy-looking, was completely hidden from view by coils of the large intestine, which were enormously distended. Occupying a considerable portion of the central part of the distended abdomen, was the sigmoid flexure; reference to the drawing (at A.B.) will make its size and relative

position more easily understood; at the spot marked with an arrow, its semi-diameter measured 9 inches; at A, a stone-like mass of solid fæces was found, and this was the cause of the obstruction. At B, the gut curved backwards rather sharply, and then passed through the left lumbar region as the descending colon. C is a portion of the transverse colon, which is much distended, and apparently elongated. It passes beneath B, obliquely from left to right, to the hepatic flexure of the colon, which it joins. Along its centre, the unaltered great omentum is attached; the stomach is greatly dragged upon, contracted, and quite empty. At A, the bowel passed into the pelvis and, resuming its normal size, became the rectum. It would seem as if, owing to its being bound down by a very short meso-rectum, the rectum as it dipped down into the pelvis formed

an acute angle with the part marked A : the hard mass of fæces above mentioned was thus quite unable to pass, and hence the fatal obstruction. All the coats of the large intestine were much hypertrophied ; the peritoneum also was greatly thickened, and could be peeled off in considerable layers : its surface, however, was nowhere split ; the longitudinal bands were especially thickened. The shaded spot (in the woodcut) between A and B was thickened peritoneum, and it bound these parts of the gut firmly to each other.

The large intestine was filled with dark olive-green thickly-liquid fæces, of which not less than half a bucketful was removed. The intestine was then well washed out, and its interior surface examined : beyond a little congestion, it presented no abnormality. The solid mass of fæces, described as at A, was of the same colour but, being drier, of a somewhat darker shade : this mass was of the consistence of sun-dried clay, and considerable force was required to break it up : it was of the size of a double adult fist ; when broken up, it presented a very scintillating appearance, owing to the large amount of crystalline matters which it contained. The odour, though characteristic, was very mild.

The kidneys, liver, and spleen were all normal. The psoas muscles were both very much atrophied.

The sketch from which this woodcut is taken was made by Mr. Maude, and faithfully represents the relative position and size of the intestinal coils.

Remarks :—Such extensive cases of fæcal accumulation (sterco-enterectasis or coprostasis, to call them by their proper names) as the present one are very uncommon, and fortunately fatal cases belong to the greatest rarities. The absence, in this case, of those graver symptoms which accompany acute obstruction, was very noticeable ; this, coupled with the faulty history, and the very lengthened period over which the constipation had lasted—it was practically from birth—renders it hardly surprising that the child's death was unlooked for by the medical officer in charge of the case, or that the cause of death, fæcal impaction, was quite unsuspected. The greatly-distended condition of the large intestine, the hypertrophy of its walls, the healthy condition of its mucous membrane, the absence of all constriction below the seat of the impacted fæces, and the fatal termination, are the chief points of interest. The fæcal mass did not present any nucleus (plum stone, foreign bodies, or even enteroliths) around which fæces had collected, such as is found in many cases of this kind, but it contained a considerable quantity of "intestinal sand" to which doubtless the glistening aspect before alluded to was due. In adults, the habitual use of narcotics, the presence of tumours in the pelvis, pregnancy, wearing of pessaries, are sometimes found to give rise to fæcal accumulation and obstruction ; but in the present case no physical cause could be assigned. Some authorities believe such habitual constipation to be due to deficient production of the intestinal juices : the mucous membrane was not examined microscopically, and it is therefore impossible to say whether any congenital peculiarity of its secreting gland structure existed in this case ; the fæces found in the large intestine were in the form of a thick liquid, and would thus favour such a view.

The absence of peri-typhlitic inflammation was perhaps not very strange, seeing that the stress of the disease lay in the sigmoid flexure ; on the other hand, the absence of all ulceration within the colon is a little remarkable. Next to the rectum, fæcal accumulation in this position is the most accessible to surgical treatment, as being within the reach of a scoop, or of an enema ; differing in these respects from accumulation in the caput coli, where it is both inaccessible, and so to speak, outside the ordinary fæcal current, by which it might be swept onwards.

Medical Times and Gazette.

SATURDAY, FEBRUARY 2, 1884.

A LETTER just received from Professor Panum, the President, gives some interesting details of the arrangements in progress for the meeting of the International Medical Congress to be held in Copenhagen on August 10th. In June of last year a provisional programme of the business to be transacted in each of the different sections was sent to the principal medical men in each country interested in the various subjects. Many valuable communications have been promised in consequence, and nearly 400 non-Scandinavian colleagues have already announced their intention to attend. From France, amongst others, come Pasteur, Paul Bert, Ranvier, Charcot, Verneuil, Cornil, Hayem, Malassez, Chauveau, Ollier, Tripier, Lepine. From Italy—Biszosero, Mossa, Galgi, Peromento, Novaro, Reymond, Giacomo, Baccelli, Tomasi-Crudeli. From Holland—Donders, Guye, Engelmann, Heinsius. From Germany—Virchow, Ludwig, Esmarch, Volkmann, His, Braune, Kronecker, Munk, Kühne, Heidenhain, Vogt, Bernstein, Grohe. The most eminent medical men of Sweden and Norway have become members of the various committees of organisation ; so that the Congress, at the instance of the President himself, will possess a truly Scandinavian character, and the medical men of Sweden and Norway will attend in as large numbers as if the congress were their own.

Professor PANUM trusts that a large number of English medical men will be present, the more so as English is one of the official languages. The Danish Parliament and the City of Copenhagen are taking an active interest in the success of the meeting ; and "We shall not be ashamed," Professor Panum adds, "of being compared with previous congresses, always excepting the Congress of London, whose prodigality we certainly shall not have the presumption to imitate. The King and Crown Prince evince great interest in the success of the meeting, but we do not intend to mention in our programme any festivities, solemnities, and such like ; we would rather emphasize our intention to make the congress a meeting for strictly professional and scientific work."

ON Monday evening, at the Medical Society, Sir Joseph Fayrer gave an admirable address on snake poison, which we give in abstract elsewhere. There was a very full attendance, including many well known in the Army Medical Department. The case of Col. M., who, while serving in Zululand, was bitten in the leg, and notwithstanding all that could be done for him, died within ten hours of the accident, served as the not inappropriate text. And if we further remember that probably not less than 20,000 persons annually die of snake bite in India, it will be conceded that such an address as that given by Sir Joseph Fayrer, practical in every detail, and from one conversant

with every side of the question, could hardly fail to excite great interest even in a country so happily free from venomous snakes as our own. The anatomy of the various venomous and non-venomous snakes was described and contrasted, and the peculiar apparatus by which the venomous snakes poison their victims was accurately described, and illustrated both by specimens and drawings. The peculiar poison fang was not inaptly described as a fine hypodermic syringe, and it was shown how the celerity of the action of the poison might depend on various causes —the spot might be very vascular, or the reverse; or a vein might be directly punctured, a misfortune which always rapidly hastened the fatal result; or the poison itself might vary in intensity according to the activity and strength of the snake. The inutility of permanganate of potash was referred to; in a test tube it was infallible, but when once the venom was absorbed into the blood it was utterly useless, since it possessed no power of selecting the poison, but acted alike on the blood and all its constituents. The only safety lay in preventing the absorption of the poison.

The meeting of the Clinical Society on Friday, January 25th, may be said, in the language of the Bourse, to have "opened flat." Possibly the somewhat diminished attendance of members may be attributed to a natural reaction after the vigorous debates of the earlier part of the session. Two papers of considerable surgical interest were communicated by Mr. Rivington, on "An Unusual Form of Dislocation of the Hip"; and on "Temporary Ligature of the Carotid Trunk for Recurrent Hæmorrhage." Neither of these papers, however, succeeded in eliciting either comment or criticism. A paper by Dr. Donald Hood, on "Angina Pectoris followed by Pericarditis," formed the text for a discussion upon cardiac neuralgia, which brought out many points of interest. A case of "Empyema followed by Abscess of the Brain" was related and commented upon by Dr. de Havilland Hall, and from the subsequent debate, which turned chiefly on the surgical treatment of empyema, it would appear that the operation of excision of portions of ribs is rapidly gaining favour amongst surgeons. An interesting case of deliberate self-starvation, due to melancholia, in a young girl of 13, was shown by Dr. Heron. A case of Hygroma of the Arm, undergoing spontaneous cure, was also exhibited.

Death from empyema, that is to say, death from the consequences of pent up pus in the pleural cavity, ought to be regarded as an opprobrium to the practitioner under whose supervision it takes place. Of all morbid conditions affecting the chest there is none which admits of such certain diagnosis, by the application of certain hard and fast rules, as that of fluid effusion into the pleural cavity. Nor is there any better-established rule of practice than that, when the effusion has been clearly proved to be purulent, it should be evacuated. Perfect evacuation usually fails from one of two causes. Either because the opening is not made large enough, or because it is made in the wrong place. All the speakers at the Clinical Society's meeting, and indeed all writers on the subject, have agreed that if a hole has to be made in the chest wall it is a matter of indifference whether that hole be a large or a small one. To determine the right place to make it, we can be guided by no other rules than those supplied by a knowledge of anatomy and physiology, aided by a common sense interpretation of physicial signs; but, if an opening in one part of the chest has failed to effect its object, and smaller or greater collections of pus are still to be found accumulating, it appears to us that a further and more complete system of drainage is as imperative as was the evacuation of the larger collection in the first instance. The spectacle of a case dragging on a weary suppurative existence for many months is a most melancholy one, and it is unfortunately by no means rare.

At a recent meeting of the New York Pathological Society, a specimen was exhibited by Dr. Robinson, consisting of a heart from an individual 6 feet 4 inches tall, and of corresponding proportions, who had suffered for years from symptoms of disturbed circulation. The organ weighed 55 oz., and was believed by Dr. Robinson to be the largest on record. The president, however, cited one formerly presented to the Society by Dr. Clark, which weighed 57 oz.

Mr. George Roper will deliver the Annual Oration of the Hunterian Society, in the theatre of the London Institution, on Wednesday, the 13th inst., at 8 o'clock.

Surgeon-General Hunter's long expected report on the cholera epidemic in Egypt has at last appeared, together with two volumes of correspondence on the same subject. The papers have come into our hands too late to do more this week than merely chronicle the fact of their publication. The report itself only occupies some eighteen foolscap pages, but it is crammed with facts and will repay careful study. The greater part of the evidence on which Dr. Hunter bases his conclusions is already known to the profession, his paper read before the Epidemiological Society being little more than his report in another form. The report, however, contains in addition a careful summary of recent researches into the ætiology of cholera. Of Koch's discovery, Dr. Hunter says, "I believe the bacilli discovered by Dr. Koch in the intestinal canal of persons who have died of cholera, are the result of decomposition, and that the evidence of this is to be found in the report itself. It must also not be lost sight of, that although some of the necropsies were conducted immediately after death, yet there is a microscopic death during the algide stage of cholera, which is antecedent to 'real death,' the cadaveric odour often being perceptible during life."

In a letter to Dr. Hunter, date Jan. 15th, 1884, Lord Edmund Fitzmaurice expresses Lord Granville's satisfaction "at the energetic manner in which you executed your mission, and his appreciation of the great attention which you gave to the nature of the cholera epidemic and to all sanitary questions in Egypt, as well as the valuable information contained in the able and complete reports which you have furnished on the subject. Lord

Granville does not doubt that these papers will contribute materially to the scientific knowledge of the character of the disease, and will claim a careful perusal by all those who take an interest in this important subject."

Professor Parker will commence his course of nine lectures, "On Mammalian Descent," in the theatre of the Royal College of Surgeons, on Monday next, the 4th instant; he will deliver them on Mondays, Wednesdays, and Fridays, at 4 o'clock, and will be succeeded by Professor Flower on the 25th instant.

The inaugural meeting of the Hospitals Association will be held at the Mansion House to-day (Friday), at three o'clock, under the presidency of the Lord Mayor, when the speakers will include Earl Stanhope, Lord Frederick FitzRoy, Sir T. Fowell Buxton, Sir Rutherford Alcock, Mr. Timothy Holmes, and others. It may be as well to remind our readers that the objects of the Association are—(1) To facilitate the consideration and discussion of matters connected with hospital management, and, where advisable, to take measures to further the decisions arrived at; and (2) to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical. The association will afford facilities for the reading, discussion, and publication of approved papers; for the delivery of lectures, and for the holding of conferences on hospital administration, hospital management, medical relief, medical education in relation to hospitals, free and provident dispensaries, and other kindred subjects; and will found a library, consisting of works on hospital administration, construction, finance, and statistics. The association is to consist of members and associates, who will subscribe respectively one guinea and ten shillings and sixpence annually. Both members and associates will be entitled to attend and vote at all meetings of the association, but members only will receive gratuitously the published papers or journals of the association and be entitled to the use of its library. A strong provisional committee, it will be remembered, was elected some time back, and the constitution of the association has been drawn up. The object of the Mansion House meeting is to formally establish the association, to ratify its constitution, and to submit the election of its council to the provisional committee. If wisely conducted the association may, no doubt, do much to evolve some order out of the present chaos.

The University of Cambridge have just issued in a pamphlet of convenient form, bound in linen, the regulations and schedules for medical and surgical degrees. This is a great improvement on the old schedules of foolscap size, which were very apt to get lost in transit between Cambridge and London, and could only be replaced by an appeal to the dissecting room porter. As regards the regulations and examinations themselves, these have undergone considerable changes during the last few years; for instance, botany has been merged into elementary biology with comparative anatomy, a move which is decidedly a good one, but we regret to see that the examination may be passed now in two separate parts. This tendency to subdivision is indeed shown in each of the examinations, and we are by no means certain that it is in all respects advantageous. If the examination extends over too large an area, by all means let it be split up, but why such an unequal division of labour as that which obtains in the second M.B. examination, where pharmacy and pharmaceutical chemistry form one part, and human anatomy and physiology the other part. In filling up his schedule for the third M.B., we fancy the candidate will, in most instances, have to commit a "pious fraud," and make the course of lectures which appeared as on "pharmacy and pharmaceutical chemistry," for his second M.B., now do duty as one on "physiological actions and therapeutic uses of remedies;" however, if the lecturer has no scruples, and they have not usually, at least not if the fees have been paid, the candidate may be well excused if he pockets his.

Some months ago we had occasion to notice the unsatisfactory position, from a financial point of view, occupied by the Downing Professor of Medicine in the University of Cambridge, and to record a futile attempt on his part to improve that position. We are glad to learn, from a letter addressed by Dr. Latham to the members of the Senate on January 22nd ult., that a Report of the General Board of Studies has been adopted, containing the following clause:—"That, provided the present Downing Professor of Medicine undertakes to comply with the provisions of Statute B, ch. xi, there be paid to him annually from the chest such sum, if any, as may be necessary to raise his whole stipend to an amount greater by £200 than the share of the revenue of Downing College paid to each fellow of the college." It will be in the recollection of our readers that Dr. Latham, in his original application to the Vice-Chancellor, only asked that the deficiency in his stipend, which for the three previous years had amounted to nearly £200 a year, should be made good in future years, so as to raise his emoluments to £400 a year in all, which was the value of the professorship when he was appointed. This is what the Senate have now practically granted—a tardy concession, it is true, but still, better late than never.

The series of four cases of Nephritis following Varicella, lately put on record by Professor Henoch, and mentioned in our last issue, must be received as a notable exception, proving the almost invariable rul that Chicken-pox runs its course without definite sequelæ. It cannot fail to be observed, however, that in every-day practice cases are constantly occurring in which there appears to be some influence at work to prevent the return of the patient to robust health. Without any definite symptoms of disorder, children frequently remain delicate and "out of sorts" for a considerable time after the disappearance of the rash. This period of weakness and unaccountable ill-health has often been mentioned by writers, and finds a place in more than one standard text-book; but it has come to be looked upon as a clinical fact, without any serious attempt being made to explain it. The possibility of

some slight renal disturbance must not be disregarded, now that a clear connection has been shown to subsist between Varicella and Nephritis.

The late unfortunate accident to the Marquis of Hertford terminated fatally on Friday, Jan. 25th, the fall having taken place on the 21st. Four days thus intervened, the injuries being of such a serious character that death might reasonably have been expected at a much earlier date. Not only was there grave concussion of the brain, causing a semi-unconscious condition from the first, but the spinal column and cord were also so bruised and crushed, in the lower dorsal and lumbar regions, that paraplegia rapidly supervened. To the spread of this paralysis, and to the exhaustion and shock consequent upon such extensive injuries, the Marquis (a man of seventy-two years, though naturally robust, and in good health at the time of the accident) could not but succumb. That he survived the disaster so long as he did was due mainly to the watchful and unremitting supervision of his medical attendants, who exhausted every resource of surgical science in the endeavour to prolong life.

It is noteworthy that this lamentable accident could not fairly be ascribed to the dangers of the hunting-field. The fox was scarcely on foot, and the chase not begun. It was on level ground, not in negotiating a fence, however small, that the fall took place. It may perhaps be fairly said that men of seventy-two years of age should not court the perils of the hunting field, since they must probably have lost both the nerve and the elasticity which enable a younger man to roll clear, if his horse is in difficulties. But if such a moral be drawn from this case, it must be extended to every form of horse exercise—since the accident to the Marquis of Hertford might have befallen him, in the same manner, on the level sweep of Rotten Row as on the Warwickshire grass.

It is stated by Lord Yarmouth that the horse ridden by his father on the day named, was not vicious, but that it was itself taken with a fit, or paralytic seizure, causing it to fall heavily forwards, then to roll on its side, crushing and kicking its rider, and to lie for half an hour afterwards on the ground, as if dead. If this be so, it seems probable that an attack of epilepsy, or "staggers," in the horse was the prime cause of the disaster.

The *New York Miller's Journal* contains some interesting facts, regarding the influence of temperature on the consumption of flour. We all know, though the mildness of the present winter has laid less emphasis on the fact than usual, that a greater quantity of heat-producing, and notably of farinaceous material, is required for the due preservation of animal heat and weight, in a low than in a high or mild temperature. The effect of cold, says the journal referred to, is, in England, to induce an extra consumption of wheat flour—while in the United States and in France *less* wheat is consumed in winter than in summer. The reason of this is that, in the latter countries, the need of extra farinaceous food is met by use of buck-wheat, Indian corn, and other grains, which are found to be both palatable and nutritious. In England, even the poorest people will starve rather than use any but the whitest of wheat flour, regarding all cheaper substitutes, and even the "whole meal" so strongly recommended, with suspicion and distaste. This is a pity, and should be amended; but the influence of habit is so strong, that at present the poor in our large cities will prefer even an inferior and adulterated wheaten flour to a more nourishing meal of other or mixed grain. They might be heavier and warmer, did they only believe it, both in pocket and in physique, if they would take a hint from the winter diet of their Transatlantic cousins.

Why is it that that most economical and nourishing of all foods—*oatmeal porridge served with milk*—finds, in spite of all that medical precept can teach, and medical example endorse, so few advocates in this country? Children who have been brought up to make it their daily breakfast, take to it naturally and easily, and thrive under its use. No hard-working adult who has proved its powers of support through a long morning of cold, exposure, and hard exercise, will allow that any other kind of food is so sustaining and so easily assimilated. Yet how rarely does it form a feature of our national breakfast table! This is chiefly, we believe, because few know how it should be prepared, in its perfection, so as to be both attractive and digestible.

The new edition of "Men of the Time" appears to have given satisfaction to nobody, except perhaps to the many inconsiderable persons whose appearance in it will surprise every one except themselves. The selection of "medical men of the time" appears to have been made as carelessly and as unwisely as that complained of in respect to several other professions, and it is much to be regretted that the editor did not consult some prudent and conscientious medical authority as to who should be admitted to his list of honour. As it is, many will be inclined to conclude that it is more distinguished not to appear in "Men of the Time;" for of some who are admitted into the volume it may be said without sarcasm that they are fitly called Men of this particular Time, for it is very certain that their names will be entirely strangers to any other.

The following is an alphabetical list of the members of the medical profession who appear in the volume:—Dr. H. W. Acland, Mr. William Adams, Sir Rutherford Alcock, Dr. G. J. Allman, Mrs. Garrett Anderson, Mr. Thomas Annandale, Sir Alexander Armstrong, Mr. J. M. Arnott, Dr. J. H. Balfour, Dr. H. C. Bastian, Dr. L. S. Beale, Dr. John Beddoe, Dr. J. H. Bennet, Sir Risdon Bennett, Professor Bentley, M. Paul Bert, Sir G. Birdwood, Mrs. Elizabeth Blackwell, Dr. Bodichon of Algiers, Dr. Bouchardat, Sir W. Bowman, M. Browne-Sequard, Sir G. Burrows, Dr. Alfred Carpenter, Sir Andrew Clark, Sir Oscar Clayton,

Dr. T. S. Cobbold, Dr. Collingwood, Surgeon-General Crawford, Mr. T. B. Curling, Dr. Dalton of New York, Dr. W. H. Dickinson, Prof. Du Bois-Reymond, Dr. Matthews Duncan, Dr. Milne Edwards, Dr. Arthur Farre, Sir Joseph Fayrer, Dr. Austin Flint, Prof. Flower, Deputy Inspector-General Giraud, Dr. Asa Gray of Harvard, Dr. S. Gross of Philadelphia, Sir W. Gull, Dr. Günther, Dr. W. A. Guy, Mr. Seymour Haden, Dr. W. A. Hammond, Deputy Surgeon-General Hanbury, Dr. G. Harley, Mr. Ernest Hart, Mr. Christopher Heath, Prof. Helmholtz, Sir Prescott Hewett, Prof. Hofmann of Berlin, Dr. Wendell Holmes, Sir J. D. Hooker, Mr. Jonathan Hutchinson, Dr. T. J. Hutchinson, Prof. Huxley, Sir W. Jenner, Dr. G. Johnson, Dr. G. Johnston of Dublin, Mr. Wharton Jones, Sir John Kirk, Prof. Koch, Dr. R. G. Latham, Dr. J. Le Conte, Dr. J. Leidy of Philadelphia, Sir W. MacCormac, Dr. Mapother, Dr. Alexander Marsden, Mr. Francis Mason, Dr. Maxwell Masters, Dr. Alfred Meadows, Dr. W. Munk, Prof. Alleyne Nicholson, Professor Odling, Sir R. Owen, Dr. Paget, Sir J. Paget, Prof. Pasteur, Dr. John Percy, Dr. Pell Pettigrew, Dr. W. O. Priestley, Dr. Richard Prior, Dr. B. W. Richardson, Prof. Burdon Sanderson, Mr. John Simon, Dr. Grainger Stewart, Dr. Allen Thomson, Prof. Virchow, Prof. Vogt, Mr. J. H. Walsh (editor of the *Field*), Dr. W. H. Walshe, Mr. J. A. Wanklyn, Sir Spencer Wells, Dr. Samuel Wilks, and Sir Erasmus Wilson.

A GLANCE at the above list will suffice to show that there is not a branch of medical science in which some of the foremost men are not omitted. What can we think of a volume which, amongst well-known surgeons, forgets to include Sir Joseph Lister, Professor Marshall, and Mr. Savory; amongst physiologists, Dr. W. B. Carpenter and Dr. Michael Foster; amongst physicians, Dr. Quain, Dr. Garrod, Dr. Wilson Fox, Dr. Russell Reynolds, Dr. Pavy, Dr. Habershon, and Dr. Bristowe; and amongst obstetricians, Dr. Charles West, Dr. Robert Barnes, and Dr. W. S. Playfair. Amongst foreigners, the sins of omission are, if possible, more striking. There is no mention of Charcot, or Donders, or Erb, or Billroth, or Ziemssen, or of a score of others whose names rise to the tongue when we think of foreign leaders in medicine. It would be worth some one's while to issue a supplement to this play in which so many of the chief players are left out.

THE health of the whole country continues almost phenomenally good. During the last week the death-rate of twenty-eight large English towns was only 20·3, and of eight large Scottish towns 20·1. In the latter the number of deaths, 485, was just three-quarters of the number in the corresponding week of last year. Of the twenty-eight large English towns as many as nineteen had a death-rate of less than 20, a most unusual proportion. Norwich, which has a way of jumping from the top to the bottom of the class, and again from the bottom to the top, heads the list with a death-rate of 15·0, and Manchester ends the list with one of 26·8. The death-rate in Leeds, which comes last but one on the list, was sent up by an unusual mortality from scarlet fever. Of 97 deaths from this disease which occurred in the twenty-eight towns, 23, or nearly one-fourth, were registered in Leeds.

THE metropolis itself has had a very healthy month, the death-rate for the first four weeks of the year averaging only 20·4, against 24·4 and 20·9 in the corresponding periods of 1882 and 1883. During last week the death-rate was only 19·9, and the deaths were nearly 400 below the ten years' average. The deaths from zymotic diseases were 55, and those from respiratory diseases 179 below the corrected average weekly number. The most fatal zymotic affections were scarlet fever, measles, and whooping-cough, which caused respectively 32, 42, and 80 deaths. Diphtheria, too, was much more prevalent and fatal than it ought to be.

THE population of this metropolis is considerably less than the aggregate population of the other twenty-seven towns with which the Registrar-General deals, and yet there were sixteen deaths from diphtheria in London to ten in all the other towns, while of the 130 deaths from whooping-cough in the twenty-eight towns, eighty occurred in the metropolis, that is, considerably more than its proper share. Few people realize the enormous sacrifice of infant life brought about by whooping-cough, most of which could probably be avoided by proper care. Scarcely a week passes but some new hospital is proposed, but no one, so far as we are aware, has ever advocated the formation of hospitals for whooping-cough. And yet half-a-dozen compact little hospitals for this complaint, scattered over the metropolis, would probably save more lives than an equal number of pretentious buildings devoted to special cases which would be much more in place either at home or in the general hospitals. The equable temperature required for the successful treatment of whooping-cough can only be secured in a hospital ward.

LOGICIANS have often puzzled their brains for a concise definition of man which would satisfactorily differentiate him from animals. The propositions that "Man is a cooking animal," and that "Man is a clothes-wearing animal," have been successively suggested and rejected, for however true it may be that no animal but man is versed either in the mysteries of the kitchen or the toilet, it is not equally true that all men use those adjuncts of civilization. Perhaps the proposition that "Man is a drug-loving animal" might be accepted where these other statements have been found wanting; at any rate it is a proposition from which the late Mr. Holloway worked out a very satisfactory syllogism. That it is true of civilized man we all know, and we have the veracious testimony of countless travellers to the effect that it is equally true of man uncivilized. This is what the latest of them, Mr. F. L. James, says of the wild tribes of the Soudan: "Nothing gives an African savage greater pleasure than a good dose of medicine; but it must be a strong one and rapid in its effects. A good dose of croton oil and colocynth, or four or five grains of tartar emetic, is what they like. . . . . At some places, Cassala for instance, there were days when as many as 200 people

visited the doctor, who gave away, among other drugs, great quantities of Holloway's pills. These pills we found immensely popular, and we took a good supply with us, in half-pound boxes, on each of our expeditions." After all, among the many resources of civilization, even croton oil may be considered as on the whole less deleterious than rum.

THE half-yearly examination for commissions in the Army Medical and East India Medical services will be held at Burlington House on Monday next. The number of vacancies in the former is stated to be twenty, and in the latter five, and to fill these we believe it will be found that an ample number of candidates will present themselves. The wisdom of the policy adopted by the governing authorities in making the services popular with the profession has been thoroughly illustrated at these recent examinations, and they have become, what they certainly were not in former days, genuinely competitive. With satisfactory results, such as these, achieved, it should not be for us to moot any point likely to mar the general contentment; but, nevertheless, we must be permitted to express our regret that at present there appears no prospect of finding the army medical officer placed upon the same footing as regards "honours and awards" during active service, as his brother combatant officers. This invidious distinction is a relic of ancient times—one of those old customs which has not been changed to meet the altered condition of things. The new era of rifled projectiles and long-carrying guns unquestionably makes those medical officers who have to be well up in the rear of the fighting line, combatant officers, and necessitates their approaching very considerable danger without the stimulus of excitement enjoyed by the regimental officer. That this view of things is not imaginary, the records of our recent little wars abundantly prove, since "killed in action" has had to be written after the name of many a medical officer, and, whatever amount of opposition the idea may evoke, we shall certainly continue to express a hope that at no very distant day this manifest injustice will be remedied.

THERE are not many points in which we are willing to admit that the Germans are superior to ourselves; but they have one characteristic which is in the highest degree worthy of our envy and imitation, and that is their reverence for the work and conclusions of experts. Here in England everyone has an opinion on every subject, and thinks himself as much entitled to hold it against all comers as though he had given a life time to its formation. The assurance with which such flimsy views are expressed—whether the subject be science, art, or politics—is simply laughable to the expert, who knows only too well how reliable conclusions are formed, and would make an average German's hair stand on an end. In Germany they order this matter better, and a striking example of it has just been reported in connection with vivisection. During the last session of the German Parliament, the anti-vivisection party raised the question whether vivisection should not be prohibited in educational establishments and its abuse punished by law. The minister referred the subject to the medical faculties, and the verdict of the committee of the Berlin University, composed of some of the ablest and best-known medical authorities in Germany, was published last week. It maintains that vivisection is essential for the study of physiology, further progress in which would be impossible without it, and that no definite judgment can be formed by students if they have not been taught by experiments the most important laws of life. There we suppose the matter will practically end. There will no doubt be another debate on the subject, but the Germans will belie their well-known character if they venture to legislate in the face of this definite expression of opinion by their best experts.

A QUESTION of more than local importance is raised by a decree promulgated in the Grand Duchy of Baden, by which a Board of Control is to be appointed to exercise supervision over the conduct of medical practitioners within the jurisdiction of that State. The Board is to consist of five medical members, with one government official, sitting as assessor, and its functions will apparently be to guard the honour of the profession from abuse or evil repute, by proceeding against, or degrading, such of the members of it as have been guilty of malpractice or unworthy conduct. This form of State interference in medical affairs met with active criticism at a meeting of the Berliner Medicinische Gesellschaft on the 23rd of January, the debate being ultimately postponed until the next meeting of the society. A decided difference of opinion found expression in the various speeches delivered; but the importance of the discussion was fully endorsed by Professor Virchow, who pointed out the probability that further legislation on medical matters is imminent, both in the Landtag and the Reichstag, and that this new decree of the Baden Government, if left unchallenged, would unquestionably be taken as a standpoint for further action in a similar direction.

THE profession in Vienna has received with the highest satisfaction the announcement that the Emperor has conferred upon Dr. Carl Stellwag v. Carion, Professor of Ophthalmalogy, and Dr. Joseph Späth, Professor of Clinical Gynæcology, the title of Hofrath, in recognition of the great and prolonged services which they have rendered to the Vienna Medical School.

A COMPANY is being started for the establishment of a sanatorium on the south coast of the Isle of Wight, close to the well known Black Gang Chine. It is proposed to purchase for this purpose the house in which the late Dr. Pusey used to live, and which those who know the part will remember far down below the level of the high road and close to the sea. It will be admitted that a better site for a sanatorium could hardly have been selected. It is well protected from the north and east, without having the oppressive climate of the Undercliff. It overlooks a fine expanse of sea, and the only disadvantage is that one has to cross the Solent to get there. The capital of the company is to be 20,000*l.*, in 4,000 shares, and shareholders

are to enjoy special advantages if they elect to stay at the sanatorium. Similar establishments in other parts of the country pay good dividends, and we see no reason why this new medical hotel should not be equally successful. If it is well managed it ought to benefit both its shareholders and its supporters.

A LARGE meeting of medical and other members of the University of Aberdeen was held on January 23rd at the Inns of Court Hotel, under the presidency of Sir Andrew Clark, Bart., M.D., to consider a proposal to found an Aberdeen University Club in London. The proposition was received with enthusiasm, and it was announced that the Duke of Richmond and Gordon, K.G., Chancellor of the University, had consented to become the first President; the following gentlemen officiating as Vice-Presidents:—The Lord Rector (A. Bain, LL.D.), Sir Andrew Clark, Dr. J. Matthews Duncan, and John Farley Leith, Esq., Q.C. A provisional council, consisting of twelve gentlemen representing the different faculties, was appointed, and it was agreed that the first meeting of the club should be held in the month of May. The Honorary Secretaries of the new club are Dr. R. W. Burnet and Mr. R. M. Routledge, and any gentlemen desirous of becoming members are requested to communicate with them with as little delay as possible.

"TERMINAL Forms of Life", was the subject chosen by Dr. Cleland, of Glasgow, for the lecture which he delivered on Thursday week, under the auspices of the Glasgow Science Lectures Association. At the outset, Professor Cleland showed, from the investigation of organs, textures, development, and date of first appearance of animals, that these all combined to display animal life as a connected and progressive whole. They did not, however, and could not, prove a common ancestry, though certainly they suggested the raising of the question; and the more that observation bridged the gaps between groups far apart, the more possible such community of ancestry would appear. He explained that terminal forms in the animal kingdom, however they might have originated, had no power to advance to a higher level. Examples of these were given in detail from vertebrate and invertebrate forms: in the former, illustrations being taken from clamp shells, bivalves, starfish, and cuttlefish; while in the case of the latter it was shown that although there was an ascending series, consisting of fishes, amphibians, reptiles, birds, and mammals, the three last had proceeded from animals as low as amphibians, and that each division of reptiles and birds was terminal.

Dr. CLELAND next gave anatomical evidence, to show that the development of the vertebrate form had reached its limit in man; and that the animals most nearly approaching man were apes, of which the ourang and the gorilla were the highest. So far as the skull was concerned, the ourang was decidedly nearer to the human form than the gorilla. Man was a terminus, and not only a terminus but the terminus of vertebrate life. In defence of this proposition, he asked what had been the whole history of the advance of life from the simplest animals up to man but the growth of structure fitted for the exhibition of consciousness? After referring to the structure of the human body and brain, the lecturer said it seemed in the last degree improbable that, in the future, there would be a progression in the construction of the human body that would give birth to greater intelligence than the sages and heroes of antiquity.

OUR Glasgow correspondent writes, with reference to the Report of the Royal Infirmary, a summary of which will be found in our News column:—"It will be seen from the report that 156 fewer patients were admitted in 1883 than in the previous year. This, however, does not imply any diminution of the work done; as the average daily number has been greater, and the average residence longer. In reality, 5 per cent. more work has been done than in the previous year. There has been an unusual number of serious cases, more so than in any recent year, and, as might be expected in consequence, there has been a higher mortality. No fewer than 140 deaths, or about 28 per cent. of the whole, occurred within 48 hours of admission. The contemplated alteration in the number of physicians and surgeons, referred to in the report for 1882, has not yet been made; but at present the managers have under consideration a re-arrangement of the staff, whereby the dispensary physicians and surgeons may be called in to assist the visiting staff, thereby ensuring greater facilities and more time for clinical teaching, as well as greater medical attention for the patients and the training of the dispensary staff for future service in the wards."

SEVERAL deaths having occurred in the Royal Infirmary and other hospitals during the administration of anæsthetics, the managers directed their attention to ascertain whether any and what safeguards could be adopted. With that view they appointed a committee to inquire into the practice of other hospitals, and, after a protracted and careful investigation, certain regulations were unanimously adopted and are now in operation. Early last year the managers considered it necessary to revise the rules of the house, as a result of the above and other new regulations having been adopted, and amongst the changes made was a reduction in the period of continuous service of the physicians and surgeons from fifteen years to ten years.

Sir WILLIAM THOMSON, the distinguished Professor of Natural Philosophy in the University of Glasgow, has had a fresh honour conferred upon him; the Emperor of Germany having enrolled him among the Knights of the Order for Science and Art.

THE profession has lost another of the few remaining veterans who were in practice prior to 1815, the date of the passing of the first Medical Act. Peter Evershed, of Billingshurst, Sussex, died at Worthing on the 17th ultimo, in his 92nd year. He was born at Billingshurst, commenced practice there in 1813, was in active work there till 1863, and was buried there last week. He was one of the old school of practitioners, whose

first aim in life was the conscientious discharge of his duties in the place where his lot fell. Except for the few years of student life in London, he spent his whole life in the place of his birth, and he had so little reason to complain of his profession—in the fashion so prevalent now-a-days—that he brought up all his sons to it. His eldest son, who succeeded him in practice at Billingshurst, died, unfortunately, only two years after Mr. Evershed's retirement, but his remaining sons still survive.

An important public meeting was held at Liverpool on January 29, under the presidency of the mayor, to consider the means to be used in raising 40,000*l.* necessary for the endowment of two professional chairs and for the equipment of the chemical laboratory. When these additions are made to the teaching power of the university, it will be eligible for affiliation to the Victoria University, Manchester. It was announced at the meeting that the requisite amount, 10,000*l.*, was already obtained to endow one chair, and that nearly 7,000*l.* had been promised for the second. Mr. W. M. Banks said that, as far as the medical school was concerned, these additional endowments were necessary not only to the prosperity but to the very existence of that institution. For years they had successfully rivalled Owen's College, Manchester, but the foundation of the Victoria University, by giving that medical school the power of conferring degrees, had placed the Liverpool school at a serious disadvantage, which could only be removed by placing their school on the same footing as the Victoria University at Owen's College at present had. At the conclusion of the meeting, several further promises were announced, and no doubt the required sum will soon be forthcoming.

At the annual meeting of the subscribers to the Liverpool Royal Infirmary, itwas stated that the building fund now amounted to 107,000*l.*, but that no active steps had yet been taken, on account of the city council having withdrawn from the resolution granting them the wished-for site. It was confidently expressed that an amicable arrangement would soon be arrived at. During the year, 2,489 in-patients were treated at a cost of 12,860*l.* 14*s.* 2*d.*, or about 5*l.* per head. This expenditure was 812*l.* in excess of the income, and raises the existing debt of the Infirmary to 4,544*l.* 9*s.* 4*d.*

In proof of the attention being now paid in the United States to the position which the cultivation of the mental powers and physical exertion should hold towards each other, we may notice the fact that the University of Pennsylvania has instituted a Department of Physical Culture. "There is," says the *Medical Reporter*, "a great deal of attention paid to various forms of athletic and gymnastic sports throughout our land, but too little of it is guided by that which should be the moving principle of all, to wit, the improvement of health. Too often the consequences are detrimental rather than beneficial. Over-training, excessive exertion, ill-directed efforts, are as hurtful as judicious exercise is invigorating. There is ample scope for such a department. We need the lines to be drawn clearly, and the information to be scattered widely, as to the limit where muscular strain over-rides intellectual difficulty, and where it defeats itself by excess." The ignorance which prevails on the subject, even among professional men, the writer observes, is great, as indeed is shown in the very State in which this useful institution is about to be established, for Girard College, with 1,100 boys, has just removed a gymnasium which a few years ago it erected at a considerable expense. It is stated in the *Boston Med. Jour.*, however, that at the new Johns Hopkins University, at Baltimore, the prosecution of physical culture will be a part of the regular collegiate course, under the charge of Dr. Mussey Hartwell.

A painful fatality in the foot-ball field is reported from Bath. A young man, aged nineteen, in the course of an exceedingly rough game, received a blow on the head. He retired from the field, suddenly became unconscious, and died a few hours later. On post-mortem examination a large effusion of blood into the brain was discovered, the result of a ruptured artery.

Dr. Passant, in his report on the Paris Night Service for the last quarter of 1883, states that the total number of night-visits paid was 1,773, and of these 34 per cent. were paid to males, 51 to females and 15 to children under three years of age. The mean number of visits per night was 19·27 per cent. The total number of night-visits paid during 1876, the first year of the organization of the service, was 3,616, while during 1883, the eighth year, they amounted to 6,895.

The old story that Lord Brougham once wrote an entire number of the Edinburgh Review, rises unbidden to one's mind when one casts the first glance at the new publication, *The Asclepiad*, which Dr. B. W. Richardson has started, and proposes to carry on all by himself. It would be unjust to Dr. Richardson to apply to him all the sarcastic sayings which were predicated of his great forerunner. But *The Asclepiad*, an excellent title for such an undertaking, bears evidence of the same versatility and the same self-confidence on the part of the writer, as Lord Brougham was celebrated for. That *The Asclepiad* contains, and will always contain, so long as it lives—we hope it will live long—plenty of readable and suggestive matter goes without saying. Dr. Richardson has a large and full mind to liberate, and he never fails to liberate it pleasantly. But we hope his example will not be followed. A quarterly monograph from everyone in the profession who has "thoughts" and a facile pen would constitute an overwhelming portent. We hardly realize sufficiently how much those great safety-valves, the daily papers, save our be-lectured profession.

The St. John Ambulance Association, which has as its motto—*pro utilitate hominum*, has recently established a corps with a horse-ambulance carriage, and some two-wheeled litters, with properly-trained bearers, which is now ready to undertake the removal of sick and injured patients. The carriages are all built upon

the highly-approved pattern of Mr. John Furley, and the corps has the advantage of his personal supervision. It is within our experience that medical men are often at a loss to know how an invalid patient can best be transported in, to, or from the metropolis; now, all that they will have to do will be to communicate with the office at St. John's Gate, Clerkenwell, and the whole arrangements of the removal will be carried out for them in the most approved method. London has hitherto been behind the times in the matter of the transport of sick patients. The invalid carriages which were available for the purpose were ill-adapted for it, whilst their employment entailed such an expenditure of money, that they were beyond the reach of the many. We are glad to find upon the prospectus card of the corps that, moderate as their charges seem to be, in certain exceptional cases a reduction on the specified terms can be made, so that the advantages of the scheme may be experienced by the more necessitous members of the community. It is, we believe, hoped that the corps may be eventually self-supporting, as, indeed, it ought to be; but in the meanwhile the subcommittee appear anxious to undertake a considerable amount of unremunerative labour, in order that the profession and the public may become aware of the existence of the corps as well as of its fitness for carrying on its special work.

Her Majesty the Queen has consented to become the patron of the Home Hospitals Association for Paying Patients, and has given a contribution which will constitute her a governor of the association. Three years' experience of the working of the pay-hospital system, as tested by the association at their home hospitals, 16 and 17, Fitzroy Square, has shown that the demand for admission is much greater than the amount of accommodation at present provided. It was a portion of the original scheme, as submitted to the public at a meeting at the Mansion House in 1877, that if success attended the establishment of home hospitals for acute disease, home hospitals for convalescent patients should be opened at the seaside and elsewhere. The home hospitals for acute disease having proved in practice so complete a success, the committee have determined to establish a convalescent hotel, or home hospital, where anyone recovering from sickness will be received, and isolated, so as not to be a danger to others, whilst being freed from any influence which is likely to militate against his rapid and permanent recovery. It is proposed that each convalescent home hospital shall be provided with a resident medical officer, with skilled and competent nurses, and with a *cuisine* of a special character. Each inmate will find there neither the noise, the absence of privacy, the general bustle of an hotel, on the one hand; nor the damp sheets, slipshod attendance, and great discomforts of ordinary lodgings, on the other. At the present time, when a patient becomes convalescent—and when he is ordered by his doctor to seek change of air—where to send him becomes a question of difficulty and worry, in proportion to the serious nature of the attack from which he is recovering. A rapid recovery largely depends upon the wisdom of the choice; and the absence of the proper accommodation has not unfrequently produced a relapse. Indeed, the need of a convalescent home hospital for paying patients, for the treatment of patients recovering from infectious diseases, has become so urgently necessary that most families have—at some time or other—felt the want of such an establishment very sadly indeed.

It is proposed, further, to undertake to remove the patients from their residence to the home hospital, and to provide the necessary precautions *en route*, which are demanded by the public health as well as the patients' welfare.

It will be necessary to raise 10,000*l.* to enable the Home Hospitals Association to establish and open the convalescent branch. The association not being a commercial undertaking, but being registered at the Board of Trade as a philanthropic institution, has obtained the necessary capital previously on the same system as that which embodies the financial principle upon which the colleges at the universities and many of the public schools were originally founded. Contributors of fifty and twenty guineas each become eligible for election as governors and members of the association, with the privileges of obtaining—(1) Priority of admission for themselves and their families when ill, and of two nominations each year, if governors; and, (2) Of priority of admission for themselves only, if members. Owing to the demand for admission, a governorship at the present time confers substantial advantages, and the addition of a home hospital for convalescents will increase that demand, and enhance the value of governorships and memberships of the association.

The 10,000*l.* additional capital which the committee now requires to establish the home hospital for convalescents, will enable them to elect about three hundred new governors and members, and it is anticipated that the substantial advantages offered to heads of families, to bachelors, and other members of the community in return for their subscriptions, will be so much appreciated, that the applications for election—which should be addressed to the treasurer, care of Messrs. Cox & Co., Craig's Court, S.W.—are likely to far exceed the number at the disposal of the committee.

THE COMING SESSION.

Parliament meets early next week, and before our next issue is in the hands of our readers the profession will have been enabled, through the Speech from the Throne and the debate on the Address, to form a fairly clear idea as to whether any measures dealing directly with the public health are likely to be passed in the session that will have then commenced. It is stated that Government will re-introduce the Medical Acts Amendment Bill of last session, with some modifications, and that they intend to carry it. Of the worth and earnestness of that good intention we shall be better able to judge when we know positively what

great party measures Her Majesty's Ministers mean to introduce, and how many of those are to be pressed forward with all the power of the Government.

The Medical Acts Amendment Bill ought not to be re-introduced except with the stern determination that it shall pass. The need of some such measure has been recognised practically by ministry after ministry, but no Government has considered the matter of such importance as to really make their Bill dealing with it a measure that must be passed; and the list of Government Medical Bills that have been born only to die is becoming scandalously long. Yet it would not require, we believe, any great amount of steady persistence and watchful perseverance on the part of the present Government to pass their Medical Acts Amendment Bill. It cannot fairly be described as a revolutionary measure; nor is it in any way framed so as to unnecessarily arouse opposition. By the Medical Act of 1858, the whole of Her Majesty's dominions were thrown open to every medical man holding a licence to practise from a medical authority in any one of the three divisions of the kingdom; but this freedom was granted on a belief that all the licensing bodies required a fairly equal standard of knowledge to be shown before a minimum licence to practise could be anywhere obtained. Experience has shown that, however pretty and plausible that was in theory, it is far from perfect in practice; and one of the objects of the new Bill is to provide, so far as may be, for the uniformity in value of the lowest qualifications in England, Scotland, and Ireland. Another, and still more important, object is to secure that no person shall be admitted to the medical register with an incomplete qualification; that is, without having passed a final examination in medicine, surgery, and midwifery. Formerly, numbers of men were entered on the medical register with a qualification in medicine only, or in surgery only; and such is still possible, the clause in the Medical Act, 1858, which provided that medical authorities might combine for the purpose of granting a complete diploma, having remained all but a dead letter. The Government Medical Amendment Bill also provides for the so-called "direct" representation of the profession on the medical council, which is demanded by a large proportion of the profession; and in other ways also it reforms the organization of the council.

Taking it altogethar, the Bill ought, we think, considering how many years the profession has been troubled by an agitation for some measure of reform, to pass; and we certainly hold that the Government will not be justified in re-introducing it, unless with a settled and fixed determination to pass it. And if they are resolved that it shall pass, we cannot believe they would fail; the measure, if brought in at once in the House of Lords, would in all probability easily pass any ordeal that it is likely to meet there. It would then be sent without delay to the lower House, and there we may be sure that Mr. Mundella will promote it with all the required tact, diligence, and persistence, provided he is well backed by the Government. The question is, will he be so backed? Party spirit runs high, and the Medical Acts Amendment Bill is not a party measure. It is *only* a measure of public health, and public policy; and therefore it will run special risk of meeting with coldness and neglect till the end of the session is close at hand, when it may again be sent, with a pretty little funeral oration, by the Prime Minister to join that majority—the Slaughtered Innocents.

Not a few questions concerning the public health also loudly demand legislation; as, for instance, the subject of the notification of infectious diseases. But if the Government are determined to bring in Bills for the extension of the franchise and the re-distribution of seats, and the municipal organization of the Metropolis, such a common-place matter as domestic legislation will have to wait for wiser and better times.

POISON-VENDING

Several unfortunate cases have recently drawn attention to the facility with which poisons can be obtained, by even the least respectable persons, and many suggestions have been made with the view of preventing "accidents." But the question is not so simple as it seems. Restriction as to the sale of poisons is difficult. Noxious things are among the daily necessities of a civilised community. Phenol, oxalic acid, binoxalate of potash, and others must be retailed to the general public and to the workers in many trades without passing through the cycle of oral and written forms. If it were possible to enact and carry out a very strict Pharmacy Act, a hundred and one arts and industries, from etching on copper to washing linen, would languish. Imagine a Royal Academician desiring to purchase a tube of green paint, and having to give his name and address, to write it in a book, and to state the purposes for which he requires it! What stronger poison is there than tobacco? Half an ounce infused in water would make short work of even an inveterate smoker; but the absurdity of including tobacco in a Poisons Act is too obvious for discussion. Not a few would like to see laudanum and chloral controlled in a much more thorough manner than under the present law, but we are doubtful whether steps in this direction are really practicable. If a person will eat opium or is under the thraldom of chloral no law will prevent him, in any efficient manner, save at the expense of the general community, from purchasing what he requires. If no druggist is to sell more than a grain of opium to one person, the opium eater has but to go to twenty, thirty, or forty druggists until he has accumulated his dose. Some coroners seem to imagine that many suicides would be prevented if common poisons, such as phosphorus paste and the like, were prohibited from being sold at all; but we venture to think, that only that kind of suicide dependent on sudden impulse would be at all influenced by any greater restriction being imposed than at present. There are many doors of death; a man bent on self-destruction, stopped in one direction, succeeds in another. Remove the poison, he cuts his throat with a razor; remove knives and drugs, he suspends himself with his neckcloth.

To sell poison as poison, with a poison label on it, in a poison bottle, is one thing, but to sell it under a fancy name is another. The "soothing syrups," the "cough drops," the "remedies for spasms," the countless pills, elixirs, lotions, drops, and sleeping

potions which fill the druggists' shops, and their descriptions the advertising columns of the journals, are so many public dangers. A Lepcha once described the root of a glossy lurid-leaved Himalayan plant as "useful to sportsmen for destroying elephants and tigers, useful to the rich for putting troublesome relations out of the way, and useful to jealous husbands for the purpose of destroying faithless wives." In a similar spirit, looking at the long list of patent medicines of deadly composition, we may describe them as "useful to the insurer of the lives of others, useful to the expectant heir, useful to blight the shame-bud of illicit love, useful to the farmer of babies, and useful to all who have aught human to kill." The "powder of succession" can be bought for thirteen-pence-halfpenny; the "Aqua Toffana," has changed its name to "Somebody's infallible skin remedy;" the venom that smeared the Indian's arrow receives the English Government stamp, and pays the Government duty as a never-failing application for neuralgia or toothache. Let us have done with masks; sell each thing and let it be sold under its own name and no other, let soothing syrup be called "a solution of opium, dangerous to children;" let the exact strength and composition of odontalgic essences, of solutions of aconite, of chloral, &c., be stated on the label, and if wrongly stated let the offender be amenable to law. The time is ripe to say that licensed quackery should no longer be permitted in its present form; but that the ignorant and unscrupulous man who puts chloral solution in a bottle, colours it with cochineal, names it "Somnifer," or anything else that can be registered, and casts it broadcast by means of advertisement over the land, should be held responsible for its use and abuse. So long as the composition of medicines and poisons is known, so long as there is no secrecy, then there is fair protection both from accidental admixture and wilful ministration; but the present sale of poisons under the guise of patent medicines is not creditable to our laws, and is alien to our method of thought. We hope that an early effort will be made to take from the speculator and the charlatan the liberty they now possess of pressing the poisoned chalice to the lips of the credulous and simple.

IS MALINGERING OF NECESSITY A VICE?

In the daily papers of this week has appeared the account of a somewhat remarkable case of alleged imposture, which is described as having been enacted by a woman with the object of exciting the commiseration and charity of the benevolent. From the report of the inquest held on her body after death, it appears that this ingenuous female had, for a period of no less than twenty years, systematically feigned sickness, and was supposed by her family and friends during that time to have been suffering, first, from paralysis, and secondly, from a remarkable change in the colour of her skin, both of which were asserted to be the results of disease. This integumentary alteration, we are informed, consisted of the transformation of the individual in question from a blushing blonde into a sable beauty, the blooming fair complexion, with which she in common with other British virgins was formerly adorned, being in some mysterious way replaced by a shiny ebony black. This pitiable condition necessitated the most anxious care on the part of her relatives, her permanent confinement to bed, and constant seclusion in a darkened chamber, all of which distressing exigencies obtained for the sufferer universal sympathy, and doubtless even more substantial consolation. Shortly before her death, which took place as a result of acute phthisis, this interesting invalid volunteered the information that all her ailments during these years had been assumed, that her limbs in reality were as vigorous as those of others, and that the hitherto unaccountable skin affection was due to the unromantic external application of a burnt cork. It is satisfactory to learn that in this instance no member of the medical profession was the dupe of this gross and palpable imposture, so long and so successfully practised, as the lady had systematically declined to enlist the services of the faculty, owing, as she said, to her belief that science would be impotent to deal with her afflictions. The magistrate at the close of the enquiry, shrewdly remarked that it was unfortunate the accomplices of this duplicity could not be brought under the arm of the law as they richly deserved, it being clear that others beside the principal must have been implicated in the deception; and he further stated that, in his opinion, at least the mother and near relations could not have been altogether innocent of so clumsy a trick. Although we are not favoured with details in this particular, the profits of the nefarious transaction were doubtless satisfactory to those concerned, and the whole affair affords an illustrative example of the mingled cunning and credulity of mankind. Such an incident would be of more interest to the police than to the medical profession, did it not suggest that under certain circumstances the most flagrant cases of malingering may be the effects of disease, and the erring conduct the result of morbid mental states. In the present instance, the facts before us do not warrant any precise conclusions on this point, but it affords a text for some reflections on the subject.

There can be no doubt that some persons in indigent circumstances and of depraved moral character, in the pursuit of gain, will fully and systematically, by feigning disease, endeavour to obtain the pity and extort the charity of their neighbours. Such conduct voluntarily assumed for the purpose of direct imposition may unhesitatingly be stigmatized as vice, and should be exposed and punished as such. There exist, however, in a considerable section of the community, especially amongst women, certain constitutions which exhibit a peculiar mental condition, consisting of a moral obliquity, in which there is a morbid impulse, not wholly independent of volition, to deceive and mystify their fellow creatures, and that often without further reason than an apparent craving for sympathy, a longing for notoriety, and a desire to excite the interest and wonder of others. This condition is highly characteristic of the so-called hysterical state which is a well recognised nervous disorder, and from the earliest ages, and in every country, examples have been cited without number of the remarkable psychological distortions of those thus afflicted. Individuals so consti-

tuted, without apparent motive, have rendered their own existences miserable, have plunged their families into despair, and wreaked on society the most hideous of crimes; their intellectual faculties, properly so called, remaining to all appearances intact. The consequences of this condition must to a certain extent be regarded as the outcome of disease, although the border line between it and simple vice is extremely difficult to define, and the determination of it has always occupied and still occupies the serious and anxious attention of the physician and medical jurist. The uninitiated, finding the reasoning powers unaffected and the senses acute, are apt to resent a lenient view being taken of injurious or cruel acts performed under suspicious circumstances, and the opprobrious epithet of "mad doctor" is thrown at those who act for the defence. But the medical man who has studied the mental deficiences and moral perversions of such patients, from the smallest particulars to the greatest departure from sanity, knows that deeds, often apparently inexplicable, are to be accounted for otherwise than by crime. How far such departures from good conduct are to be punishable by law does, and always will, remain a delicate problem for solution, as while, on the one hand, society must be protected from injury, on the other, it must not be outraged by the persecution of the irresponsible.

The nature of this peculiar moral obliquity is not easy to analyse, but if we cannot explain its phenomena we daily see its effects. It is the attribute of all animals to cultivate the love and sympathy of their fellow creatures, an attribute which in distress or sickness is particularly augmented. If this natural desire is not satisfied, or if it is imagined that due consolation is withheld, it is a human failing with the best of us to make the most of our ills to obtain what we crave for. Within reasonable limits this display of our woes may be considered as an amiable weakness, indulged in to satisfy our natural affections. Beyond this, however, such exaggerations become morbid, and this condition is notably exemplified in the hysteric, whose abnormal cravings in this respect constitute disease. In this affection there is not only an excessive mobility of the entire system which initiates evils unknown to the healthy, but a special mental conformation which amplifies them in the mind of the patient, and excites an unreasonable demand on her part for the commiseration and consolation of others. From augmenting her existing ailments it is but a step to the manufacture of new ones, and the desire to simulate, to attract attention, and to display her misery becomes irresistible. From the smallest aberrations from truth, to the most profound dissimulation, these traits are common to all those suffering from this condition, and the instinctive duplicity, the incessant and inveterate inclination to be false in word and deed, without direct interest, is essentially a peculiarity of this remarkable malady. Besides the exaggeration of their complaints and the invention of others, hysterical persons have a special satisfaction in deceiving those around them, and more particularly their medical men, and their delight is as far as possible to render themselves scientifically interesting and mysterious, and, as it were, to place themselves on a pedestal for inspection. To effect this end the patient may evince unusual intellectual qualities, and the ingenious cunning, sagacity, and apparent good sense displayed by such subjects is notorious. It is not doctors alone who have been the dupes of such individuals, but from time immemorial the ignorant and superstitious public, ever ready to accept the supernatural or miraculous, have eagerly accepted their assertions and demonstrations as true.

When the hysteric has pursued this dangerous direction in excess, she is already on the threshhold of mental alienation, and from a medico-legal point of view, is not entirely responsible for her actions. Further, these profound and durable fixed ideas may so act on the mobile and unstable general system as to give rise to actual objective disturbances, which, although at first produced by volition, afterwards become genuine and beyond the control of the patient. Hence arise the excessive flow of tears, persistent vomiting, diarrhœa, and other functional derangements. It is finally not impossible that such persistent hallucinations may ultimately develop structural changes, as evidenced in chronic cases by the severity and incurable nature of the paralysis, rigidity, convulsions, and other phenomena sometimes observed.

Armed with knowledge concerning this form of nervous constitution, it is not surprising that the physician should recognise it in many examples of misconduct and crime, which appear inexplicable to the ordinary observer, but to him seem attributable to this cause. The case of imposture reported this week would appear to belong to this category, and is only remarkable from the length of time during which the imposition was kept up. Whatever may have been the motives which actuated those with whom the woman lived, it is difficult to believe that she was herself an example of a mere vulgar impostor. Assuming that a certain pecuniary advantage was to be gained, it is scarcely conceivable that any young person of healthy and well directed intellect would willingly incarcerate herself for twenty years, for that motive alone. Doubtless she attempted to deceive, but the puerility of the means she adopted, the length of time the trick was persisted in, and the paucity of advantage to be gained, all point to disease rather than to uncomplicated vice. It is not necessary for us to enquire at length into the motives of this particular female, or to attempt to further analyse the impulses of the class in general to which she probably belongs. The actions and nature of woman as a whole have puzzled wiser heads than ours, and philosophers from the most remote periods have vainly endeavoured to decipher her character. As medical men we can, however, from experience, assent in both a corporal and mental sense, to the dictum of the poet, "Frailty, thy name is woman."

Cholera at Madras.—An outbreak of cholera lately took place at Government House, Madras. Mr. Grant Duff and his family had just returned from Guindy, when his excellency's valet, an African, was seized with cholera, from which he subsequently died. By medical advice the family at once returned to Guindy, where they remain until the house is thoroughly disinfected. The medical men pronounce the case to have been of a purely sporadic character.

CLINICAL PAPERS.

No. V.—Optic Neuritis.

Since the invention of the ophthalmoscope, no one physical sign has proved so reliable as optic neuritis in the diagnosis of cerebral disease. Vomiting, headache, squint, an irregular pulse, may one or all be present, but it is optic neuritis which affords the clenching argument, the convincing proof of definite intracranial disease. Without it there is still room for doubt, with it there is no longer any excuse for hesitation in the diagnosis. So great a value then being set upon this sign, it is incumbent upon us to have, so far as may be, clear views as to the nature of optic neuritis and the causes which bring it about. As often happens when a new physical sign is made known, several explanations are offered of its mode of production, and the present instance is no exception to the rule; but until within the last few years no theory has been put forward that could by any reasonable amount of straining be made applicable to all cases.

The questions that naturally arise are: Firstly, What constitutes optic neuritis? Secondly, In what diseases does it occur? and lastly, How is it produced? We would define optic neuritis to consist in swelling of the disc, so that its margins are more or less completely obliterated, the surface being reddened or discoloured, the arteries narrowed, and the veins unduly full, tortuous, and perhaps lost to view at the margin of the disc. In advanced stages there may be hæmorrhages and other changes with which we need not concern ourselves. Amongst the causes we shall, for reasons which will subsequently appear, allot the first place to meningitis, then come tumour and abscess of the brain, softening from arterial obstruction, chronic Bright's disease, lead poisoning, certain acute diseases and acute anæmia, and perhaps some acute diseases of the spinal cord. It must not be forgotten that in some of these affections there may be only papillitis and not true optic neuritis, for it is as yet impossible, at any rate without unusual skill and experience, to differentiate by means of the ophthalmoscope between optic neuritis and papillitis. In all that we have to say, therefore, we put this latter on one side.

The first explanation put forward was that optic neuritis was of two totally distinct kinds: first, there was a true descending neuritis; and next, and more commonly, there was an inflammatory œdema of the optic nerve. The argument in support of the latter view ran very much as follows: Owing to the presence of a tumour or for some other reason, there was increase of the intracranial pressure; this led to pressure on the cavernous sinus, obstructing the return of blood from the eye through the ophthalmic vein, whence the production of œdema of the disc, followed by compression of the veins of the retina, giving rise to the condition known as "choked disc" of English writers. It was said that this form might ultimately lead to inflammatory changes. Just at first sight this theory was taking enough, but it was soon found out that the two forms were not to be so easily distinguished during life, and the one form was not unfrequently mistaken for the other. The theory received a great shock when it was shown how free was the communication between the ophthalmic, orbital and facial veins; and the discovery that the pressure of an aneurysm on the cavernous sinus does not necessarily produce a choked disc, gave it its death blow. Next there was the hypothesis that optic neuritis resulted from distension of the subvaginal or intersheath space behind the sclerotic by fluid which had spread from the subdural or according to some authorities from the subarachnoid space in cases of increased intracranial effusion; according to this hypothesis the neuritis would be due partly to pressure, partly to the transmission of an irritative action. This theory has enjoyed a more lasting favour than the preceding one, but cases of undoubted neuritis have occurred in which there was no distension of this sheath, and in some cases where the sheath was much distended no signs of neuritis have been recognised.

The next theory is that optic neuritis is set up by a tumour of the brain indirectly by vasomotor irritation; this may be quite true, but at present there is no evidence in support of it. It rests with those who hold this view to shew first that mere vasomotor disturbance is capable of setting up inflammation at a distance, and secondly that the optic nerve has, so to speak, vasomotor connections with all parts of the brain, for optic neuritis has been found to co-exist with tumours in the most varied situations. The theory of a descending neuritis has rapidly gained favour during the last few years, and, supported as it is by pathology, cannot fail ultimately to receive its due share of attention. Examination of the optic nerves reveals (what was denied by earlier observers) the existence of inflammatory changes in all cases of optic neuritis. These changes are found not so much in the nerve-tubes themselves as in the neuroglia and blood-vessels; and the latest explanation, and the one that seems the most satisfactory, is that in these cases the changes always originate in basic meningitis, and that where this is not present there optic neuritis will not be set up. This theory, based as it is on facts supplied by pathological histology, explains some facts which have hitherto been difficult of comprehension. For instance, in some cases of tumour optic neuritis is developed very late or not at all, and sometimes it will appear and pass off whilst the tumour is steadily increasing. In future we must not be satisfied in a case of optic neuritis that there is no meningitis without making a microscopical examination; nor in cases of basic meningitis must we consider the absence of optic neuritis as proved on the strength of a negative examination with the ophthalmoscope during life. With these words of warning we take leave of the subject, confident that, ere long, time will afford a complete and satisfactory solution.

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Hospital Saturday Fund.—At a meeting of the Hospital Saturday Fund, held last Wednesday in Exeter Hall, Mr. Arnold Morley, M.P., presiding, congratulatory addresses were delivered by the chairman, Mr. Hamilton-Hoare, Lord Brabazon, and others. It was also stated that the fund had reached a higher amount than in the previous year by the sum of 1,000*l*.

REVIEWS AND NOTICES OF BOOKS.

AGNEW'S SURGERY.—VOLUME III.[1]

With the completion of this volume, the third, of a system of surgery, terminates a task which has occupied the author's "leisure" for more than five years. The first volume appeared in 1878, the second in 1881, and the third has just been brought out, so that there has been no unnecessary delay in the production of the several parts of this voluminous work; and when it is borne in mind that the present volume is the smallest by some two or three hundred pages, it will be understood that, from first to last, there must have been incessant labour bestowed upon it. As regards the able surgeon whose name the work bears, the profession in this, as well as in his own country, will be glad to possess his recorded experience and opinions which are the outcome of much more than a quarter of a century of bedside observation and professional duties. But, in addition, the work gains largely from the contributions supplied to the author by numerous able collaborateurs to whom in the several prefaces Professor Agnew acknowledges his indebtedness. The valuable assistance rendered by these gentlemen, in collecting statistical and historical information, has been doubtless very great; indeed, without it, we cannot conceive how a work containing nearly 3,000 pages on so wide a subject as surgery could have been accomplished in the time. In turning merely over the leaves of any of these volumes, there are disclosed to the inspection vast and complex tables of hundreds of individual cases of one class and another, of injuries, operations, and diseases. Tables we find therein which represent days and weeks of searching, not in books only, but amongst the periodical literature of all countries; and these add largely to the value of the work as a storehouse of information, but they carry on their face the impression that no one brain could perform the task which has been accomplished under Professor Agnew's name in five, or twice five, years. And this impression deepens as the reader becomes more familiar with the text; and so does his foregone opinion that it is a step of doubtful wisdom and ambition, for one person to attempt to write upon the whole range of surgical subjects.

A manual for students must unquestionably embrace something of every department of the whole field. It must be complete and comprehensive, but at the same time concise. It need not contain anything that is original, and will certainly be all the better suited to its purpose if its aim is to present a good epitome of accepted doctrines and practice rather than to display the accumulated knowledge or special views of the author. Its pages may therefore, indeed should be culled from the writings of the latest and most experienced and best accepted workers in the various departments of surgery; and should not be made the repository of innumerable units of experience presented in detail, and then used for the deduction of general conclusions. For the busy practitioner, as for the student a compact, clear, and practical guide is needed; one which will at any moment of reference distinctly but briefly place the leading features of a disease or injury before him; one which will give him sound conclusions based on multiples of ripe judgments; one which will direct vividly the line of treatment, and the reasons for the treatment, without long narratives as to the why and the wherefore, the pros and the cons of every proposal. On the other hand, for the original investigator, for the lecturer, tutor or writer, a standard work of reference is required; for them the grounds on which the conclusions are based are welcome, the cases are independently studied by them, and the particular author's opinions are weighed and accepted or rejected, not received as unalterable and infallible guides to practice. To satisfy the latter a comprehensive encyclopædia is requisite; to meet the wants of the student and practitioner a good text book is needed.

Agnew's "Principles and Practice of Surgery" is neither the one nor the other, though perhaps it more approaches an imperfect encyclopædia than a text book. It is not, however, accurate enough, nor full enough, nor sufficiently equal in its treatment of different subjects for an encyclopædia; it is too profuse and diffuse to be recommended to students and practitioners. As a text book, it is not nearly so well adapted as Gross's "Surgery," the sixth edition of which appeared in 1882; whilst as a work of reference it will be lost sight of in the presence of the "International Encyclopædia of Surgery" which is now coming out, and of the "System of Surgery" edited by Holmes and Hulke, which has been before the profession for some time past.

We do not say this, however, disparagingly, nor in condemnation of the principles and practice as they are laid down in the work before us; on the contrary, it is only just to speak of the now completed work in the same terms of praise which we employed in reviewing the first two volumes; but it is, as we consider, the mistaken scope and handling of the subject-matter to which we refer.

Of this, the last volume, a great deal might be written. It contains chapters on the surgical diseases of the larynx and trachea; on the diseases and injuries of the nose, naso-pharyngeal region, and associated parts; of the eye and its appendages; and of the ear; malformations and deformities, and tenotomy in the treatment of "Orthopædia;" affections of the muscles, tendons, bursæ, and aponeuroses; surgical affections of the nerves; of the lymphatic system, skin, and subcutaneous connective tissue; syphilis; tumours; diseases of the mammary gland; electricity in its application to surgical therapeutics; operations for nerve-stretching; and massage. The value of the several chapters of course varies; the same amount of knowledge and care has not been brought to bear on all alike; and it cannot be said that they are all brought up to the point of information of the present time. On several subjects important recent views and researches are not even alluded to.

We had occasion to notice several omissions in each of the other volumes; and as in them so in this there

[1] The Principles and Practice of Surgery, being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M.D., L.L.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Profusely illustrated, pp. 784, illustrations 511.

are numerous mistakes, evidently the result of hurry, such as errors in proper names and in references. There are, too, the same tabular groupings of so-called typical symptoms, for the sake of contrasting allied diseases, which are so frequently found in the other volumes, and which are so very suggestive of extracts from "cram" books on surgical diagnosis. But as in each of the other volumes so in this there are many valuable and important contributions to our knowledge, and several useful statistical collections. In the first volume the mass of material on fractures, and in the second volume the statistics of amputations, and the collected cases and records in the chapter on the surgery of the mouth, were very noteworthy; whilst in this third volume the information collected as to surgical affections of the nerves stands out as a prominent feature of much importance. The illustrations are, on the whole, superior to those in either of the other volumes.

The Sanitary State of the British Troops in Northern India; by SURGEON-GENERAL A. C. C. DE RENZY, C.B., London, Whitwy and Co.—This is a reprint of a paper read before the Epidemiological Society on February 7, 1883, which is of great interest with reference to the propagation of cholera and typhoid fever. Since the paper was originally produced, there has been added to it a preface, which, in some respects, is the most remarkable portion of the pamphlet. "It has been represented to me," says Dr. De Renzy, "that the paper does not accurately represent the views of Dr. Cuningham, inasmuch as, *though he holds that the specific germs of cholera and typhoid fever are not communicated through water, no one could, more strongly than he, feel and urge the importance of the purity of the water supply, as a preventive of such diseases.*" Dr. Cuningham's views, however, are well known, and the statements of them, made in the paper, are supported by extracts from his own writings; and it appears to us that the inaccuracy is not on the part of Dr. De Renzy, but of the author of this representation, who, failing to appreciate the divergence between the two authorities, makes an attempt to reconcile opinions, which are directly opposed to each other. Thus he loses sight of the fact that Dr. De Renzy considers the poison of cholera to be a specific poison, without which the disease cannot be produced, that the water carries this contagium, and is therefore the direct cause of the disease: whereas Dr. Cuningham holds that water does *not* carry the contagium, and therefore is *not* the direct cause of the disease, but that water contaminated with other impurities may injure the health, and so render people more susceptible of the cholera poison. The question therefore is not *how shall we reconcile these opposite views?* but *which of them is right?* In support of the opinion advocated in the pamphlet under review, we might quote numerous high authorities, pre-eminently Dr. Parkes, whom Dr. De Renzy himself quotes. But if Dr. Cuningham be right, all the direct observations of modern days, proving the affirmative, must be set aside, in favour of theories, held by a few only, but boldly put forward *as if* they proved a negative.

The evidence is most satisfactory of cholera having been, in a great number of instances, communicated from one person to another by liquids introduced into the mouth: knowing this, we must admit the possibility of its being sometimes communicated through the air, which is much more difficult to substantiate: but Dr. Cuningham denies that it is conveyed in either way, his idea being, as he stated at the meeting of the Epidemiological Society on July 4, that *no case of cholera has relation to any previous case.* Now this proposition is not susceptible of proof, and is negatived by numerous carefully investigated cases. To accept such a law is to set aside the plain evidence of reason, and must result in the cessation of all efforts directed against the true cause of cholera. Let us draw an illustration from some other disease, of which the contagium can be seen, such as favus. Dirt is well known to be a favourable condition for the development of favus, but the true cause is the *Achorion Schönleinii.* If any man were so rash as to deny this, he might allow a child to rub his head against another head affected with favus, simply taking care that cleanliness should be observed.

It is admitted by all that, in the evidence of cholera being conveyed by water, there is, up to the present time, one link wanting, viz., ocular or chemical demonstration, and Dr. Cuningham rejects all the other evidences, which have been considered sufficient by the best workers in this field of inquiry. For a private individual so to differ from his compeers is of small consequence, whether he be right or wrong; but if the Surgeon-General of India be wrong, it is a calamity of immense magnitude, for he leads millions astray on a subject involving the issues of life and death. However this may be, let him not close his eyes to the fact that, daily and hourly, the most accomplished investigators are bringing us nearer to ocular demonstration of the germs of this and many other diseases, as well as to verifications of their contagious nature founded on the experimentum crucis.

The history of Fort William very strongly supports the opinion that, when the water supply is so protected as to make contamination impossible, cholera is incapable of spreading to any serious extent, and this is also true of enteric fever. Thus, in the eleven years ending 1881, there were no fatal cases of enteric fever recorded in Fort William, and only ten deaths from cholera.

The review of Dr. De Renzy's pamphlet in a contemporary, contains an observation, to the effect that the author does not "explain why such remarkable fluctuations should take place in the death-rate, while the character of the water supply remains unchanged;" but the truth is it does not remain unchanged, for open watercourses in India are liable to temporary as well as permanent contaminations. A heavy shower of rain at Peshawur carries down a heap of filth, and alters the whole character of the water supply; at Lahore, on one occasion, a European employé of the railway complained that the body of a native, that had died of small pox, had been washed in the canal cutting, close to his dwelling; some days after the commencement of the terrible epidemic of cholera in 1872, a dead body was found in the watercourse, that supplied the drinking water at Meean Meer; and the immediate neighbourhood of these watercourses is continually dotted with the alvine evacuations of natives, whose favourite latrine is the bank of a stream, which furnishes, without the trouble of seeking, the means of immediate ablution. It is needless to point out the varying circumstances that may alter both the character and amount of the last-mentioned impurities. We earnestly recommend our readers to take all these points into consideration, before deciding that *fluctuations* in the death-rate throw doubt upon the causal relation of the water supply to the mortality.

ABSTRACTS AND EXTRACTS.

AN OLD CASE OF GASTROTOMY.

DR. HAGENS, of Dantzig, has lately communicated to the *Berlin. Klin. Wochenschrift* a case of gastrotomy performed in the 17th century, and described in a contemporaneous MS. now in Dr. Hagens's possession. The writer, however, Dr. Becker, published a much fuller account a few years later, under the title "De Cultrivoro Prussiaco Observatio et Curatio singularis . . . a Daniale Beckhero, Dantiscano . . . Regiomonti, 1636;" again, Lugd. Bat., 1638 and 1670. Two of his colleagues, also, G. Loth and R. Hemsing, issued reports of the case in German. Becker's book was translated into English by Daniel Lakin, as "A Miraculous Cure of the Prusian Swallow-knife, &c., 4to., Lond., 1642, pp. 147."[1]

[1] I have a copy of Lakin's book. Prefixed to it isa woodcut, showing the patient with the wound in the abdomen, and the knife. The book is, I think, very rare; my own copy being the only one I have seen. There is a curious collocation of names connected with this case. Daniel Schwaben did the operation, of which Daniel Becker wrote the report; Daniel Lakin translated it.—J. D.

The patient was Andreas Gruenheide, a peasant of Gruenwald, near Kœnigsberg. On May 29th, 1635, wishing to induce vomiting, he took up a table-knife by the blade and with the handle tickled his fauces. The knife slipped from his hold, and after a short delay in the œsophagus, entered the stomach. He tried the very simple plan of placing himself with his head downwards, but finding that the knife did not stir, he went to Kœnigsberg, and applied for advice to Dr. Becker. The whole collegium medicum of the city were invited to deliberate on the case, and a further opinion was requested from the medical faculty of Leyden. These learned doctors returned a solemn reply, divided into ten heads, finally sanctioning an operation. Dr. Becker encouraged the man to submit, by relating a similar case which had been successfully operated on at Prague, and then, on July 9, handed him over to Daniel Schwaben, "Surgeon and Lithotomist." All present having joined in solemn prayer for success, the man was bound to a plank, and the surgeon made a vertical incision below the false ribs on the left side, two fingers' breadth long.[2] The abdominal cavity having been opened, the stomach was caught up with a curved needle, and drawn forwards. In doing this the point of the knife was felt and cut down upon, then seized, and the knife drawn out. No attempt was made to close the wound in the stomach, which is described as spontaneously shrinking together. The external incision was united with five sutures, over which a most fantastically compounded poultice was applied. Nutritive enemata, it seems, were not thought of, and some soup was taken by the mouth on the very day of the operation, and was followed up by a powder and mixture. The patient appears to have resumed his ordinary diet within a few weeks after the operation. The wound healed completely; the man regained his health, and in 1643 was married; the name of the bride, and the date and place of marriage being duly recorded by Dr. Becker in his MS. Another proof that the patient was living several years after the operation, is afforded by a quaint entry in the *Diary* of John Evelyn. He visited Leyden, and under date of August, 1641, describes his visit to the anatomy-school, where, he says, "among other rarities I was shown the knife newly taken out of a drunken Dutchman's guts, by an incision in his side, after it had slipped from his fingers into his stomach. The pictures of the chirurgeon and his patient, both living, were there." In Becker's MS., in his book, and in Lakin's translation, the patient is shown with the incision in his abdomen; and in the margin the knife is depicted of its natural size. The blade and handle together measure about seven inches. Dr. Hagens, in concluding his paper, mentions the celebrated case of "l'homme à la fourchette" at Paris, and Félicet's "taille stomacale" for extracting a spoon; Schwaben's knife, he adds, completes the *Besteck*.

JAMES DIXON.

Harrow Lands, Dorking.

INVESTIGATIONS ON INTRA-OCULAR PRESSURE. — Dr. Ernst Gruser has published (*Arch. f. exp. Path. u. Pharm.* 1883, Bd. XVII., Hft. 5, p. 328), the results of some manometric investigations on the intra-ocular pressure, and the effect that atropine and eserine have upon it. By the aid of a specially-contrived apparatus, the author has arrived at the following conclusions:—1. By means of his manometer he is not only able to determine the amount of intra-ocular pressure or tension, but he can also detect and estimate with accuracy any variations of that pressure. 2. The amount of the intra-ocular pressure depends directly on the height of the vascular pressure. Narcotism similarly alters both, compression of the aorta raises the intra-ocular pressure by from 4 to 5 mm. Hg. Compression of the carotid on the same side causes a rapid fall of 5 or 6 mm. Hg., which, however, gradually rises again to the normal pressure. Tying both jugular veins raises the pressure, but only temporarily. The rapid fall of the arterial blood pressure which takes place at death is accompanied by a rapid fall in the intra-ocular pressure. 3. In a cat during life, the intra-ocular pressure is on the average equal to 28 mm. Hg.; when dead the pressure is always from 8 to 10 mm. Hg. 4. The movements of the muscles of the iris always affect the intra-ocular pressure, dilatation of the pupil always causing it to rise and contraction to fall. Section of the sympathetic causes a fall of from 2 to 6 mm. Hg. in the intra-ocular pressure as well as narrowing of the pupil; irritation of the same nerve causes a rise of the pressure of from 5 to 6 mm. with dilatation of the pupil. 5. Atropine applied to the conjunctiva in quantities sufficient to cause mydriasis raises the pressure (there is sometimes a transitory fall before the rise). 6. Eserine similarly applied causes the pressure at first to rise, but in all cases in less than an hour the pressure had fallen below the normal. (*Centralblatt f. Klinische Medicin*, Jan. 19, 1884.)

[2] This seems a very small opening; and, indeed, in all the three drawings, it is represented as a full hand's breadth from end to end. Lakin speaks of the "two fingers breadth" as indicating the point below the ribs where the incision was begun, not the length of the incision itself.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 25TH, 1884.

Sir ANDREW CLARK, Bart., President, in the Chair.

Mr. RIVINGTON read a paper on—

An Unusual Form of Dislocation of the Hip.

On August 5th, 1883, a man, æt. 34, was standing with his legs apart and his body bent forward, when some large packing cases fell upon him, striking him on the right side of the head and right hip. The head of the right femur was displaced from the acetabulum. The symptoms were complete immobility of the thigh, which was slightly flexed; abduction and commencing inversion of the whole limb, and shortening to the extent of three-eighths of an inch. Under ether it was readily reduced on the first employment of manipulation, the head entering the acetabulum with a click, and with slight grating. The dislocation differed from the ordinary sciatic form in the abduction, slight inversion, and less amount of shortening; and it did not resemble some published instances of anomalous displacements. It might best be described, perhaps, as the first stage of a sciatic displacement. On September 11, the patient, being able to walk, left the hospital cured.

Mr. RIVINGTON also communicated a case of—

Wound of External Carotid by a stab in the parotid region, Recurrent attacks of Hæmorrhage, temporary Ligature of the Carotid Trunk, combined with Ligature of the External Carotid at the seat of injury.

The patient, a carman, æt. 31, was stabbed by his wife in the left parotid region on December 24th, 1882. Hæmorrhage had ceased before his admission into the London Hospital, and his wounds were brought together by sutures. On December 30th and 31st some hæmorrhage occurred, but it was readily arrested by pressure. Swelling of the left side of the face and erysipelas supervened, necessitating incision and the insertion of drainage tubes. He went on well till Monday, the 15th of January, 1883, when severe hæmorrhage occurred, arrested by pressure with a sponge and bandage. On the following morning he was seen by Mr. Rivington. On removing the bandage and compress, blood gushed out in a strong jet from a wound over the position of the external carotid behind the jaw. Pressure stopped the hæmorrhage. To avoid loss of blood during the process of securing the wounded vessel, Mr. Rivington cut down upon the carotid above the ordinary seat of bifurcation of the common carotid, and passing a cat-gut ligature round one of the carotid trunks (either the common or external carotid), tied it so as to stop the current without

dividing the coats of the vessel. On removing the pressure from the wounded external carotid only a languid stream issued, and the vessel was tied above and below the opening. The ligature round the main trunk was then untied, but left under the vessel, and the wound was closed, the ends of the ligature passing out between its lips. No more hæmorrhage occurred, and the patient made a good recovery. The cat-gut ligature dissolved and came away from under the main trunk spontaneously on the sixth day after operation.

Dr. COUPLAND observed that a very similar case had been reported in a former volume of the Society's Transactions, and that the patient was present in the anteroom for examination.

Dr. DONALD HOOD related a case of—

Angina Pectoris, immediately followed by Pericarditis.

The history of the case was briefly as follows:—A gentleman, æt. 65, resting on a sofa, apparently asleep, was suddenly roused by the window curtains being on fire. He quickly jumped up to extinguish the flames, and within half an hour of this exertion he was suddenly seized with severe heart-cramp. Seen shortly afterwards by Dr. Hood, he was noticed as being blanched, barely able to speak, heart irregular and fluttering, pulse of peculiarly low tension, with agonising cramp-like pain over cardiac region. Hot stimulating applications, brandy, ether, and opium, were used freely, and the patient slowly lost the pain, and a general improvement of the circulation took place. Twenty-four hours after the commencement of the attack a soft pericardial shuffle was noticed; within a few hours it had deepened into a distinct rub. From this time during the succeeding ten days the case assumed all the characters of one of pericardial effusion; the amount of fluid being but moderate, and apparently completely absorbed within the ten days. A fortnight later the patient was found to have a systolic apex murmur, and symptoms of incompetency of the mitral valve rapidly developed. The patient died four months later from syncope, and at the time of death was the subject of cardiac dropsy. No *post-mortem* could be obtained. Dr. Hood suggested as a possible explanation of the primary attack, with its subsequent train of symptoms, that the patient was the subject of some fibroid degeneration of the heart. Roused from sleep by the flames, his alarm and exertions caused a sudden distension of the heart cavities, which possibly gave rise to some lesion of the visceral layer of pericardium, and so started the pericarditis. In support of this hypothesis, Dr. Hood called attention to the series of cases of fibroid disease of the heart, collected and published by the late Dr. Fagge in the twenty-fifth volume of the Transactions of the Pathological Society, and stated that in more than half of these cases the patients were found to have been the subjects of pericarditis. He further suggested that fibroid degeneration of the heart should be looked upon as a possible factor in those cases of pericardial effusion in which it was difficult to explain the cause of the pericarditis.

Dr. BURNEY YEO inquired if any evidence had been observed of possible arterial changes in this case.

Dr. DE HAVILLAND HALL gave the details of a case seen by him five years ago, in which a man, aged 56, had suffered from severe pain in the præcordial region shortly after a violent and passionate altercation with his son. The pain was still present on the following day, but was somewhat relieved by the use of diffusible stimulants, and of morphia subcutaneously, but never quite disappeared. The sounds of the heart were then normal, and there was no rise of temperature. Within forty-eight hours, signs of pericarditis became manifest, a moderate effusion took place, the patient became worse, and died in four or five days. No *post-mortem* examination was made.

In reply to Dr. GLOVER, Dr. Hall stated that there had been a slight rise of temperature on the third day.

The PRESIDENT observed that, as the cases of true angina pectoris were almost always relieved by the use of even the most minute quantities of nitro-glycerine, he should like to ask why Dr. Hood had not made use of it in his case. He inquired further, what had been the course of the temperature, and commented upon the fact that some cases of pericarditis may run the whole of their course without giving rise to pyrexia.

Dr. DUCKWORTH thought it only fair to say, that hitherto no clinical connection had been recognised between cases of genuine angina pectoris and pericarditis by any of the standard authors. The classical disease, angina pectoris, was generally relieved by the well-known remedies. But there were other forms of angina, and especially in connection with aortic disease, in which severe cardiac pain was set up, and he considered it possible that the cases related might have been of this class. Chronic mediastinal inflammation, disturbing the nerves of the part, might give rise to cardiac neuralgia. These cases, however, were different from those of true angina pectoris. He thought that probably very few physicians had seen many cases of the latter affection, whilst the occurrence of cardialgia must be familiar to most observers. Simple cardiac neuralgia, however, was not usually followed by pericarditis.

Dr. W. EWART thought that it would be of interest if evidence could be brought forward of the extent to which pathological changes on the heart and great vessels could give rise to symptoms. He had met with many instances of cardiac pain simulating neuralgia, brought on simply by excitement. It would be difficult to explain the occurrence of pericarditis from a purely functional cause; but he thought it possible that there might be an enlargement of the aorta within the pericardium, which escaping detection, might suffer a slight rupture and so set up pericarditis. He would be inclined to attribute the sequence of events in these cases to some such coincidence.

Mr. COODE ADAMS mentioned a case, in which a slight rupture in the wall of a fatty heart had led to hæmorrhage and subsequent fatal pericarditis. In this case also there had been pain resembling that of angina pectoris.

Dr. HOOD, in reply, explained that in his case nitro-glycerine had not been at hand, and good results had at first been obtained by diffusible stimulants. The temperature throughout the case had remained normal. The renal functions were natural, and no arterial changes had been detected. The possibility of aneurism had been fully discussed at the time; but even if such a condition had been present, it would have afforded no explanation of the subsequent endocarditis.

Dr. DE HAVILLAND HALL read the following case of

Empyema, followed by Abscess of the Brain.

S. N., æt. 19, a pupil teacher, admitted into the Westminster Hospital, August 20th, 1883. The patient had empyema, following an attack of acute pleurisy, three years previously. She had been tapped, and a drainage-tube left in. When first seen by Dr. Hall at Christmas, 1881, she was suffering from hectic in consequence of imperfect flow of pus; immediately, however, that perfect drainage was established, her condition improved, and for a year she was able to resume her duties. The reason of her last admission into hospital was the hope that the chest had sufficiently fallen in to allow of the withdrawal of the drainage-tube; but when this was done the evening rise of temperature which occurred showed that pus was accumulating, and the tube had again to be introduced. Just as the patient was about to return home, she began to complain of headache; this was followed by vomiting. On the 11th day from the onset of cerebral symptoms the temperature, which previously had been subnormal, began to rise. There were slight convulsions on the left side of trunk and face, the drowsiness became more profound, and she died comatose. Shortly before death there was a copious purulent discharge

from the left nostril. At the *post-mortem* examination, which was made by Dr. Hebb, the left pleura was found extremely dense, a cavity capable of containing several ounces of fluid lay between the opposing surfaces; elsewhere the parietal and visceral pleuræ were united. On removing the brain, an abscess in the left posterior lobe burst; no other pathological appearance was detected. The abscess, spherical in shape, and about the size of a hen's egg, lay in the white matter, the walls were nearly an eighth of an inch thick, hard, and of a purplish brown colour; the contents were a thick greenish pus, which had an offensive odour. In commenting on this case, Dr. Hall insisted on the importance of having a double opening in cases of empyema, the lower one being made, if possible, in the eleventh interspace—a drainage-tube being passed through the two openings, and the ends tied together. By this means perfect drainage is attained. He claimed the case under consideration as a success, so far as the empyema was concerned, as the treatment was so far beneficial that the patient was able to resume her duties; whereas, prior to the double opening being made, she was much exhausted by the constant suppuration, and consequent hectic. Turning to the question of cerebral abscess, Dr. Hall mentioned some cases in which this disease had followed empyema. In his case the thick abscess wall pointed to its being of many months' duration; the absence of symptoms till towards the end being explained by the seat of the lesion being at a distance from the motor and sensory centres, which apparently were not compressed. The two symptoms which ushered in the terminal period, viz., headache and vomiting were those commonly observed in such cases. He was unable to give any explanation of the discharge of pus noticed from the left nostril shortly before death. At the autopsy, in spite of careful search, no appearance of suppuration was detected at the base of the brain, and there was no communication between the abscess and the nose.

Dr. Burney Yeo expressed his conviction that the best operative means of evacuating pus from the pleura, was that of excision of portions of ribs, as carried out by Sir Joseph Lister at King's College Hospital. He made especial mention of three cases, in all of which the most satisfactory results had been obtained. The opening had generally been made in the seventh intercostal space in the posterior axillary line. This spot was not chosen arbitrarily, but was generally indicated in each case. It was preferable to any point lower down, because of the frequent accumulation of thick layers of fibrin at the more dependent parts, and also because of the fact that the ribs in such cases are usually closely approximated to one another below the level of the eighth rib. He remarked upon the preference of German surgeons for selecting the anterior parts of the chest, from the same reasons.

Mr. R. W. Parker contended that the best position for operating, and the best method of performing the operation could not be positively laid down. Many empyemata were loculated, and we must operate upon them where we find them. He could not share Dr. Hall's satisfaction with the result of his case, believing that a more thorough evacuation would have led to a cure, rather than to the temporary relief, followed by complications and death. The chief difficulties in such cases were met with towards the end, owing to the rise of the diaphragm or other causes, whereby drainage tubes were liable to become obstructed. He considered that the advantage of double openings in the chest wall were unmistakeable, but would prefer to obtain the same results by passing a double tube through a single opening. Such an opening, however, must be wide and free, so as to enable large tubes to be used, and with this precaution he did not find any advantage in excision of portions of ribs. In some of his later cases he had been able to remove a considerable amount of thick pyogenic membrane by the aid of a sharp spoon fixed in a flexible handle.

Mr. Pearce Gould, who had seen and operated on Dr. Hall's case, admitted that the ultimate result had been unsatisfactory; but called attention to the marked relief afforded by the operation, pointing out that, under the circumstances, further operative interference seemed uncalled for. With respect to the abscess in the brain, it was difficult to trace any connection with the empyema. The temperature chart showed most clearly that there had been no fever for a long time before death. The septicæmic nature of the abscess was therefore doubtful, but even such cases as these had been known to run an apyrexial course. He suggested the possibility of the abscess being formed from a softened tuberculous mass. In operating on the present case he had chosen the seventh space for the opening, because the diaphragm had not risen and drainage was free. Perhaps in the later stage of the case it would have been better to have used only the upper opening. When the chest wall falls in, all the ribs come closer together with the exception of the eleventh and twelfth, between which there remains a space, probably due to the traction of the quadratus lumborum muscle. He agreed with Mr. Parker as to the value of the double tube, but related a case in which perfect success had been obtained with a single one.

Mr. R. J. Godlee drew attention to the purulent discharge from one nostril which had occurred in Dr. Hall's case, and asked whether there had been any evidence of disease of the nose itself, or of the ears, which might have given rise to the cerebral abscess. In operating for empyema he preferred to make a single free opening, not too low down, with excision of portions of one or more ribs. There were many advantages in the system of large single openings, and it was not open to any serious objections or evil results.

Mr. Barker agreed with the advantages attributed to the single opening with excision of portions of one or more ribs. He had been struck, not only with the ease, but also with the rapidity, with which the operation could be carried out. The sub-periosteal removal of rib was, however, frequently followed by regeneration of bone before falling-in had begun to take place.

Dr. Percy Kidd had had opportunities of making *post-mortem* examinations in two cases of cerebral abscess following empyema. Both cases had been operated on by Mr. J. Marshall. In one case a portion of rib had been removed, and in the other a small portion of rib was found to be bare. In this case death occurred in five days.

The President pointed out that these cases of pericarditis and of empyema had served to illustrate a point worthy of remembrance, viz.: that, under certain conditions, inflammation may take place without any rise of temperature. He believed that septicæmia, or even fever, might occasionally present all their phenomena with the exception of pyrexia. Between the contending advocates of the double opening, and of the excision of ribs, he feared that the old-fashioned plan of drainage through a single opening ran some risk of being lost sight of. He related the particulars of a case of long standing in which, with strong family predisposition to phthisis, the patient made a good recovery after simple drainage. The occasional collection of small quantities of pus in the pleura had given rise to small storms of fever from time to time.

Dr. Hall, in reply, observed that the question of excision of ribs had been suggested, and he recapitulated some of the features of the case which had determined the treatment adopted. With respect to the abscess in the brain, there had been no evidence of nasal or aural mischief, nor was there anything in the *post-mortem* appearances to suggest tubercle. From the appearance of the abscess cavity it had clearly been a long time in forming.

Death of a Medical Practitioner from Morphia.—An inquest was held on Friday, the 25th ult., on the body of Dr. W. O. Deacon, medical officer of Richhill, Ireland, who died after injecting five grains of morphia. From the evidence, it appeared that the deceased had been in the habit of administering to himself ten grains of the drug twice a day for the last four or five years.

MEDICAL NEWS.

THE ROYAL COLLEGE OF PHYSICIANS.

At a meeting of the Royal College of Physicians of London, held on Thursday last, after some formal business, the following communications were received: From the President, stating that the Swiney Prize, a quinquennial prize, had been awarded to Professor Sheldon Amos; from Sir Joseph Fayrer, a report on the Amsterdam Intercolonial Congress; from the Northumberland and Durham Medical Society, thanking the College for their re-entombment of Harvey's remains; from the Secretary of the Harveian Society of London, sending a similar resolution; from Sir William MacCormac, late Secretary-General of the International Medical Congress, presenting photographs and autographs of the members of the Congress; and from the Rev. John Escreet, in reference to the restoration of Hempstead Church, stating the estimated cost; and again asking for assistance. The College, as a college, decreed they had no funds for the purpose.

Drs. Herbert Davies, Hermann Weber, Lockart Robertson, and Moxon, were elected councillors in place of Drs. G. Johnson, Fincham, J. E. Pollock, and Andrew, who went out of office.

A report was received from the Censors Board, on the paper by Drs. Sydney Ringer and Murrell on Nitrite of Sodium. The Censors consider that mistaken inferences were drawn from the paper, owing to its unfortunate construction. They regretted this, but entirely acquitted the authors of improper experimentation, and consider they have really rendered good service to the profession.

Dr. Ord and Dr. Dickinson were appointed Examiners for the Murchison Scholarship.

Drs. Stevenson, Corfield, Ballard, and Thorne, were appointed Examiners for the Certificate in Hygiene.

The Council recommended that the President of the College, and the President of the Royal College of Surgeons, seek an interview with the Home Secretary as to the necessity of providing for the proper instruction of the Public Prosecutor in the case of criminal charges against medical men; and the College accepted that view.

A report was received from the Pharmacopœia Committee, suggesting changes in the new edition of the Pharmacopœia.

British Medical Benevolent Fund.—The annual general meeting of subscribers to the British Medical Benevolent Fund was held on Jan. 15th, at 34, Seymour-street, Portman-square, the house of the treasurer, Dr. Broadbent, Dr. G. C. Jonson taking the chair in the unavoidable absence of the President, Sir George Burrows.—The financial statement was submitted, and the annual report of the committee read by the treasurer, from which it appeared that the donations during the year 1883 had amounted to 542*l.* 6*s.* 5*d.*, the subscriptions to 1,376*l.* 6*s.* 4*d.*, making a total of 1,918*l.* 12*s.* 9*d.*—The disbursements during the year had been: in grants, 2,229*l.*, nearly 100*l.* more than in any previous year; in annuities, 1,062*l.*, a total of 3,291*l.*; and the entire expense of collecting and distributing this large sum amounted only to 141*l.*, not 4½ per cent., including the printing and postage of the report and also the postage and other expenses connected with the distribution of over 2,000*l.*, by Dr. Jonson, chairman of committee, in weekly or monthly instalments—a peculiar characteristic of this fund. At the last meeting of the year, the balance at the bankers was entirely exhausted, and every farthing at the command of the committee voted away. During the year, grants were made to 190 applicants, after careful enquiry, ranging from three pounds to enable an assistant to take a situation to one of twenty-four pounds in monthly instalments of four pounds, by means of which the use of his furniture was secured to an aged practitioner. The committee again wish to point out that, although large sums are sent up by the various honorary local secretaries, it is a fact that those parts of the country from which the most urgent appeals come do not contribute to an equal extent with others from which the appeals are neither so frequent nor so urgent: showing a want of more honorary local secretaries to the Fund. Dr. Milson and Mr. Kiallmark joined the committee; and Dr. G. C. Jonson and Sir Edwin Saunders were elected vice-presidents of the Fund.

University of Edinburgh.—The annual meeting of the Association for the Better Endowment of the University of Edinburgh was held on the 25th ult. The report stated that the income from matriculation and graduation fees was 8,949*l.*, and from other sources 4,198*l.*; the expenditure amounted to 10,207*l.*, leaving a surplus of income of 2,940*l.* To render the financial position of the university less precarious, it was greatly to be desired that some very substantial addition should be made to the capital of the general university fund. The insufficiency of the emoluments of the principalship and many of the professorships had frequently been pointed out in detail. The committee now only stated that these remained in the same unsatisfactory condition. The new buildings for the medical school of the university were so far advanced that all the lecture rooms, and most of the practical teaching rooms, were in use. The sum as yet contributed towards the new subscription for the completion of the buildings was barely sufficient to meet the cost of the teaching departments, and even when these should have been completed, the University of Edinburgh would remain without a hall for graduation ceremonies, examinations, and university meetings, such as the munificence of the Marquis of Bute had bestowed upon Glasgow University. That was an ever-felt want in the University of Edinburgh, which would be especially apparent at the approaching tercentenary celebration.

Glasgow Royal Infirmary.—The annual report shows that during the year the total number of cases treated was 32,952 against 32,687 in the previous year. The income from all sources during 1883 was 29,570*l.* 5*s.* 6*d.*, and the total expenditure, 27,646*l.* 18*s.*, showing a favourable balance of 1,923*l.* 7*s.* 6*d.* There were admitted during 1883, 5,445 cases, against 5,601 in 1882, being a decrease of 156; the cases treated to a conclusion numbered 5,465 cases, against 5,564 in 1882, a decrease of 99; and the deaths were 499, against 446 in 1882, an increase of 53. The mortality was thus 9·1 per cent., against 8 per cent in 1882, but of the fatal cases as many as 140 died within 48 hours of admission against 103 who died under the same circumstances in 1882. The mortality (excluding those who died within 48 hours), was 6·7 per cent. The daily average of patients resident was 509, against 507 in 1882, and the average residence of each was 33·4 days, against 32·2 days in 1882. The non-resident accident cases treated in the wards numbered 1,326, against 1,312 in 1882; the number under 15 years of age treated was 878, against 985, and the deaths 48, or 5·4 per cent., as compared with 53, or 5·3 per cent. in the previous year. The lowest number of patients in the house was 439, against 444 in 1882; the highest number in the house was 555, against 549. The patients treated at the dispensary were:—Medical, 9,609, surgical, 11,727; in all 21,336, against 21,197 in 1882. In the special dispensary departments, that for the throat had 468 patients, against 586; the ear, 1,444, against 1,136; women, 337, against 289; skin, from 7th Nov., 68 (new branch); teeth, 976, against 1,011. Vaccinated, 1,532, against 1,592. Total treated, 32,952, against 32,687. Patients sent to Lenzie Convalescent Home, 584, against 634.

Glasgow Eye Infirmary.—The annual report of the Glasgow Eye Infirmary, submitted at a meeting of the subscribers on Friday the 25th ult., showed that the total number of cases under the care of the medical officers during the past year was 13,697, as against 13,207 in 1882. Of these cases, there were dismissed, cured by ordinary treatment, 6,998; cured by operation, 1,424; relieved by ordinary treatment, 1,167; relieved by operation, 168; incurable, 50; with advice, 21; as irregular, 10; and there remained on the books of the institution on 31st December last, 3,859. Of the cases, 7,701 were dealt with in Berkeley-street, and 5,996 in Charlotte-street. The number of house patients in 1883 was 1,015: of these, 625

were males, and 390 were females. The average weekly number was 54, and average length of each patient's residence was 19¼ days.

The Hospital for Sick Children.—A special court of the governors of this institution was held on the 23rd ult., when the general report was presented by the secretary, Mr. Samuel Whitford. It appeared that the hospital had been enabled to keep the whole of the various departments in full and satisfactory operation, although the state of the finances was not so satisfactory as could be desired. Mr. A. Lucas said that, unfortunately, the drainage of the building was somewhat defective, the old system in vogue at the time when the present structure was erected having failed to carry out efficiently its object over such a lengthened period; the sewers were old and the connections bad and unsuited for the purpose. Dr. Buchanan had recommended the committee to call in the services of Mr. Field, of the Sanitary Department of the Privy Council, and that gentleman had sent in a report, which was then submitted for the consideration of the special meeting. To carry out the suggestions made in that report it would be necessary to expend a considerable sum of money. After some conversation the following resolution was unanimously carried:—"That this court approve of the expenditure of the sum of money required for the construction of the proposed works in connexion with the drainage of the hospital."

Metropolitan Convalescent Institution.—At the half-yearly general meeting, held on Tuesday, it was stated that upwards of 4,000 convalescent men, women, and children were received each year into the homes. The remaining portion of the Bexhill Home will be opened as soon as the necessary arrangements are made, and when completed it will accommodate 100 persons. Owing to the want of funds, the board of management have been obliged to reduce the stay of the patients at the homes to three weeks, and unless the income is considerably increased they will have to reduce the number of beds. The total income for the year amounted to 7,958*l.* 17*s.* 6*d.*, and the expenditure to 7,723*l.* 0*s.* 5*d.*

The Crusade Against Vaccination.—It is reported that, notwithstanding the overwhelming defeat last session of his anti-vaccination motion, which was rejected by 286 votes to 16, Mr. P. A. Taylor has determined once more to challenge the judgment of the House of Commons on the same topic. This year, however, instead of proceeding by way of motion, he will bring in a bill for the repeal of the compulsory clauses of the Vaccination Acts. Several members—among them Sir Joseph Pease and Mr. J. R. Hollond—who are not disposed to support absolute repeal, are prepared, nevertheless, to restrict the infliction of cumulative penalties, and it is understood that the Local Government Board itself is adverse to the repeated prosecution of parents who conscientiously object to vaccination.

Irish Graduates' Association.—Dr. Gerald Yeo will preside at the annual dinner of this association, to be held on St. Patrick's Day, at the Holborn Restaurant, at 7.30 p.m.

French Hospital.—The annual dinner in aid of the funds of the French Hospital and Dispensary will take place at Willis's Rooms, on Saturday, February 2, 1884, the French Ambassador in the chair.

Army Medical Department.—There will be three retirements under the age clause during the present year from among the administrative ranks of the Army Medical Department, viz., Surgeons-General A. Smith, C.B., and J. Lamprey, on October 14; and R. Gilborne, on November 20.

Edinburgh University.—The Vienna University has decided to forward a congratulatory address to the Edinburgh University on the occasion of the latter's tercentenary celebration.

Female Medical Students.—It is stated that all the female medical students in St. Petersburgh, a class from which a daily contemporary states many redoubtable members of the nihilist party have emanated, have just been compelled to take up their residence in a large boarding establishment, provided by the authorities, under the superintendence of Princess Shakafskey, instead of being free as heretofore to live where they please. They are to pay ten roubles per month for board and lodging, and be at home before 9 o'clock in the evening, under penalty of exclusion from the medical course.

South Devon Hospital.—The Earl of Morley presided, on Tuesday, at the annual meeting of the South Devon Hospital, Plymouth, for which a new building is to be opened shortly, at a cost of 30,000*l.*

Charitable Bequests.—Mr. Dodgson, of Beardwood, near Blackburn, has bequeathed 10,000*l.* to the Blackburn Infirmary, 10,000*l.* to the Royal Albert Asylum for Idiots and Imbeciles at Lancaster, and 5,000*l.* to the Manchester Infirmary.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 24th ult., viz.—

Adams, C. E., Carno, Montgomeryshire.
Carter, A. J., Harleyford Road, S.E.
Crowle, T. H. R., Campdenhill Road.
Davis, W. P., Ebury Street, S.W.
Fuller, G. H. H., New Shoreham.
Gooding, M. R., L.R.C.P. Lond., Oakley Square.
Harvey, James, Leicester.
Hughes, E. A., Bentinck Street.
Johnson, G. H., Wath-on-Dearne, Yorkshire.
McDonnell, W. C., L.R.C.P. Lond., Stoke Newington.
Power, E. T., Denmark Hill, S.E.
Robbs, C. E., B.A. Cantab, Powys Square.
Spicer, W. T. A., B.A. Cantab., Saffron Walden.
Styam, T. G., M.A. Cantab., Eastbourne Terrace, W.

Three candidates passed the examination in Surgery, and when qualified in Medicine will be admitted Members of the College; four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for three months, four for six months, and one for nine months.

The following gentlemen passed on the 25th ultimo viz.:—

Barrett, J. W., M.B. Melb., Melbourne.
Carroll, E. R. W. C., Wokingham.
Dill, J. F. G., M.B. Cantab., Lower Belgrave Street.
Edlin, H. E., Manchester.
Edwards, D. G., Denbigh.
Eleyatamby, Mudalitamby, L.R.C.P. Ed., Colombo.
Hawkins, G. C., Teignmouth.
Rogers, W. F. C., Falmouth.
Ross, E. F., L.R.C.P. Lond., Sydney, N.S.W.
Taylor, Robert, Mendlesham, Suffolk.
Thomas, A. W., L.S.A., Clapham Common.
Wale, George, Carshalton.
Webb, Hugh, Buckingham Palace Road.

Five candidates passed in Surgery, and when qualified in Medicine will be admitted Members of the College. Seven candidates, having failed to acquit themselves to the satisfaction of the Court, were referred for six months, and three for three months.

The following gentlemen passed on the 28th ultimo, viz.:—

Bird, Henry, L.S.A., Brampton.
Carnelley, Matthew, Fallowfield.
Evans, Cadwallader, E., Bristol.
Gostling, John H., Halesworth.
Growse, William, Brentwood.
Habgood, William, L.S.A., Wimborne.
Hudson, Charles L., L.S.A., Bungay.
Lewis, Edward J., B.A. Cantab., L.S.A., Llandovery.
Lilley, James H., M.A. and M.B. Cantab., Atherstone.
Marriner, William H. L., L.S.A., Gunterstone Road, W.
Pilgrim, Herbert W., L.S.A., St. Augustine's Road, N.W.
Samut, Richard, L.S.A., Malta.
Townsend, Edward B., L.R.C.P. Ed., Colchester Street, N.W.
Vince, John F., L.S.A., Birmingham.
Warner, Frederick A., Kensington.
Wholey, Thomas, L.R.C.P. Lond., Gainsboro'.
Woolby, James B., L.R.C.P. Lond., Halesworth.

Four candidates were approved in Surgery, and when qualified in Medicine will be admitted Members of the College. One candidate was referred for nine months, five for six months, and three for three months.

The following gentlemen passed on the 29th ultimo, viz. :—

Bean, Charles E., L.S.A., Shepherd's Bush.
Benson, Christopher R., L.S.A., Clifton.
Crocker, John H., L.S.A., Gunnislake, Devon.
Cummings, Harold L., L.R.C.P. Lond., Dulwich.
Edgelow, Herbert, Cambridge Street, Pimlico.
Foley, Charles N., L.S.A., Denbigh Place, S.W.
Holroyde, John, L.S.A., Ripponden, Yorks.
Irvin, Frederic D., L.S.A., Longridge, near Preston.
Julyan, Francis H., L.R.C.P. Lond., Queen's Park, W.
Nuttall, Charles D., L.R.C.P. Lond., Leicester.
Parry, Herbert L., L.R.C.P. Lond., Canonbury Park North, N.
Smith, John C., L.S.A., St. John's Wood.
Whish, Martin S., L.S.A., Granby Street, N.W.

Three were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; seven were referred for six months, and two for three months.

The following gentlemen passed on the 30th ultimo, viz. :—

Armitage, Edward H., L.R.C.P. Lond., Brook Street, W.
Clarke, Charles F., L.S.A., Plumstead.
Dodd, Arthur H., L.S.A., Petherton Road, N.
Gordon, Thomas E., M.B. Durham, Gower, Swansea.
Mills, Robert, L.S.A., Northampton.
Minns, Allan G., L.R.C.P. Lond., Thetford.
Opie, Edward A., M.B. Durham, Plymouth.
Rowlands, William, L.K.Q.C.P.I., Great Crosby, Liverpool.
Scutt, Tom., L.R.C.P. Lond., Wareham.
Stables, Alexander, M.B. Edin., Nairn, N.B.
Stott, Hugh, L.S.A., Uxbridge Road.
Webster, Alfred G., Huddersfield.

Eight candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. 191 candidates presented themselves for the examination just completed, as compared with 175 at the corresponding period of last year: of this number 20 were referred to their further professional studies for three months, 59 for six months, and two for the extended period of nine months, making a total of 81 referred candidates.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, 24th ultimo :—

Marriner, Wm. Herbert Lister, Gunterstone Road, W.
Pilgrim, Hubert Wilson, St. Augustine's Road, N.W.
Urwick, William, St. George's Road, Pimlico.
Vince, Jno. Foster, Wheeley's Road, Birmingham.

The following gentleman also on the same day passed the Primary Professional Examination :—

Heath, Chas. Joseph, of St. Bartholomew's Hospital.

THE CASE OF MESSRS. BOWER AND KEATES.

THE EIGHTH AND FINAL LIST.

The following have sent one guinea each :—T. A. Carter, M.D.; A. E. Cumberlatch, F.R.C.S.; G. Borlase Hicks, Esq.; J. Irving, M.B.; T. J. Maclagan, M.D.; W. Pearse, Esq.; J. B. Story, M.B.; W. L. Underhill, F.R.C.S.

The following have sent half-a-guinea each :—W. Curtis Hugman, F.R.C.S.; G. Knapton, Esq.; C. Latham, Esq.; W. H. Latham, Esq.; A. C. Tunstall, M.D.

The following have sent ten shillings each :—R. Ives, Esq.; R. J. Pye-Smith, F.R.C.S.

The following have sent five shillings each :—W. Grant, M.B.; B. Harvey, Esq.; H. Hick, Esq.; W. A. Maybury, M.D.; M. F. Ryan, Esq.

F. A. Mahomed, R. W. Burnet, } *Hon. Secs.*

APPOINTMENTS.

Apthorp, F. W., M.R.C.S., L.R.C.P.—Medical Officer and Public Vaccinator, Manhood District, Westhampnett Union, *vice* Thomas Dutton, M.D., M.B., M.R.C.P., resigned. Also, Surgeon to Courts "Star" and "Manhood" Ancient Order of Foresters, *vice* Thomas Dutton, M.D., M.B., M.R.C.P., resigned.

Bateman, H. E., L.R.C.P., M.R.C.S.—Resident Medical Officer to the York Dispensary, *vice* E. H. Morgenrood, M.B., resigned.

Beamish, S., M.D.—Medical Officer for the Union Hall Dispensary District, Skibbereen Union.

Bourne, A., L.R.C.P.—Visiting Medical Assistant to the Newcastle-on-Tyne Dispensary, *vice* T. Clarke, M.B., resigned.

Brickwell, J., M.R.C.S., L.S.A.—Medical Officer for the Stoke District of the Eaton Union.

Carr, John A., L.R.C.P. Edin., L.R.C.S. Edin.—To the Kippax District, Tadcaster Union.

Crook, John, M.R.C.S. Eng., L.S.A.—To the Third District, Norwich Union.

Fisher, S. W., M.D.—Honorary Physician in Ordinary to the Brighton and Hove Dispensary, *vice* Dr. Tyler Smith, resigned.

Fowke, F. W., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—To the Fifth District, Daventry Union.

Gamgee, Arthur, M.D., F.R.S.—Physician to the Manchester Hospital for Consumption and Diseases of the Throat.

Limont, James, M.A., B. Sc., M.B.—House-Physician to the Infirmary, Newcastle-on-Tyne.

Lucas, Arthur, M.R.C.S., L.S.A.—Medical Officer to Wovenden Parish, Newport Pagnell Union.

Meeham, N., M.D.—Medical Officer to the New Ross Union Dispensary, *vice* P. Mullin, L.R.C.S., deceased.

Mivart, F. C. St. George, M.R.C.S.—Honorary Surgeon to the Western General Dispensary.

Roe, A. D., B.A., M B. Cantab., M.R.C.S.—Clinical Assistant to the Brompton Hospital for Consumption.

Smyth, F. S., L.R.C.P., L.R.C.S.—Honorary Medical Officer to the Royal Kent Dispensary (Brockley District).

DEATHS.

Foote, Gustavus, M.R.C.S., at Kington, Herefordshire, on Jan. 24, aged 59.

Harley, Thomas, M.R.C.S., at The Lawn, Haverstock Hill, on January 27, aged 65.

Pocock, E. W., M.R.C.S., at Mackay, Brisbane, aged 38.

Sinclair, Geo. Murray, L.R.C.P., L.R.C.S., at Ely, Cambridgeshire, on January 23, aged 14.

Wood, Thomas, Surgeon-Major, Army Medical Department, at Enniskillen, on January 26.

VACANCIES.

Ashby-de-la-Zouch Union, Fourth District.—Medical Officer. Area 6,861 acres. Population 6,393. Salary £60 per annum.

Bolton Union, Westhoughton District.—Medical Officer. Area 8,693 acres. Population 13,014. Salary £60 per annum.

Boscombe Provident Infirmary, Bournemouth.—Resident Medical Officer. Salary £60 per annum, with board, &c. Candidates must be duly registered and unmarried. They are prohibited from engaging in private practice. Applications, together with copies of testimonials, to be sent to the Secretary, before February 11.

City of Ely Dispensary.—Surgeon and Dispenser. (*For particulars see Advertisement.*)

Droxford Union.—Medical Officer to the Workhouse. Salary £15 per annum.

Droxford Union, Droxford District.—Medical Officer. Area 12,836 acres. Population 3,382. Salary £55 per annum.

Hearts of Oak Benefit Society.—Consulting Physician. (*For particulars see Advertisement.*)

Huddersfield Union, Horley District.—Medical Officer. Area 2,435 acres. Population 5,070. Salary £16 per annum.

Launceston Union, Second District.—Medical Officer. Area 7,029 acres. Population 1,125. Salary £13 per annum.

Leeds General Infirmary.—House Surgeon. Salary £100 per annum, with board, residence, and washing. Candidates must be Members or Licentiates of a British College of Surgeons. Copies of testimonials to be sent to Dr. T. Clifford Allbutt, the Infirmary, Leeds, on or before February 8.

Malton Union, Hovingham District.—Medical Officer. Area 15,160 acres. Population 2,555. Salary £32 per annum.

Nottingham Borough Asylum.—Assistant Medical Officer. Salary £100 a year, with board, apartments, and washing. Candidates must be duly qualified in Medicine and Surgery, and registered. Applications, with testimonials, stating age, &c., to be sent to the Medical Superintendent, on or before February 16.

Royal Surrey County Hospital, Guildford.—House Surgeon. (*For particulars see Advertisement.*)

APPOINTMENTS FOR THE WEEK.

February 4. Monday.

MEDICAL SOCIETY OF LONDON.—Mr. R. Brudenell Carter will deliver his Third and Last Lettsomian Lecture, subject—"Modern Operations for Cataract."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m.—Mr. G. W. Parkinson, Mr. Fredk. Canton, and Dr. W. St. George Elliott, "Casual Communications." The President (Mr. J. S. Turner) will read his Introductory Address.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his First Lecture "On Mammalian Descent."

ROYAL INSTITUTION, 5 p.m.—General Monthly Meeting.

5. *Tuesday.*

MEDICO-PSYCHOLOGICAL ASSOCIATION, BETHLEM HOSPITAL, 4 p.m.—The following Papers will be read: Dr. Savage, "On Constant Watching of Suicidal Cases;" Dr. Gasquet, "On Some of the Mental Symptoms of Ordinary Brain Disease;" Dr. Herbert Major, "On the Results of the Collective Record of the Causation of Insanity."

PATHOLOGICAL SOCIETY OF LONDON.—Mr. Bowlby, "Sporadic Cretinism;" Dr. Barlow, "A Case of so-called Fœtal Rickets (? Cretinism);" Dr. Lediard, "Epithelioma of the Foot after Injury" (card); Dr. Hale White, "Fibroid Disease of the Heart;" Mr. Batlin (for Mr. Benton), "Carcinoma of Œsophagus;" Sir H. Thompson, (1) "A Growth from the Bladder," (2) "Calculus impacted in a Sac in the Bladder;" Dr. Norman Moore, "Interstitial Disease of Ovary;" Dr. Angel Money, "Spinal Cord of a recent and old Case of Infantile Paralysis;" Dr. Sainsbury, "Malignant Disease of the Mesentery;" Mr. G. Stokes, "Pigmentary Degeneration of the Tongue" (living specimen); Mr. Bowlby, "Dermoid Cyst of the Finger" (card).

ROYAL INSTITUTION, 3 p.m.—Prof. A. Geikie, "Scenery of the British Isles."

6. *Wednesday.*

OBSTETRICAL SOCIETY, 8 p.m.—Dr. Matthews Duncan will show Dr. Auvard's rest; specimens will be shown by Dr. Galabin and Dr. Horrocks. Paper by Mr. Alban Doran, "The Relation of Prolapse of the Vagina to Hernia," illustrated by two pedigrees. Annual Meeting—The President (Dr. Gervis) will deliver the Annual Address.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Secoud Lecture "On Mammalian Descent."

7. *Thursday.*

ROYAL INSTITUTION, 3 p.m.—Prof. Pauer, "Music for the Pianoforte," &c.

8. *Friday.*

CLINICAL SOCIETY OF LONDON.—Mr. A. Pearce Gould, "Obliterative Arteritis accompanied by Gangrene;" Dr. Hadden, "Obliterative Arteritis ending in recovery;" Dr. Burney Yeo, "Primary Syphilis with Acute Pyrexia;" Dr. Mansell Moullin, "Thrombosis of Vena Cava;" (living specimens); Dr. Radcliffe Crocker, "Keloid on Chest;" Dr. Stephen Mackenzie, "Acne Variioliformis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Third Lecture "On Mammalian Descent."

ROYAL INSTITUTION, 8 p.m.—Mr. G. J. Romanes, "The Darwinian Theory of Instinct."

9. *Saturday.*

ROYAL INSTITUTION, 3 p.m.—Prof. Morley, "Life and Literature under Charles I."

NOTES, QUERIES, AND REPLIES.

THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—J. D'Arcy Harvey, Esq., Staff Surgeon, R.N., £1 1*s.*; R. W. Ollivier, Esq., £2 2*s.*; H. D. Shepard, Esq., £3 3*s.*; W. H. £5 5*s.*

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co., Strand.

THE ROGERS FUND.

The following is the twelfth list of subscriptions:—Jas. Cornwall, Esq., F.R.C.S., Fairford, Gloucestershire, £1 1*s.*; D. B. Balding, Esq., F.R.C.S., Royston, Herts, £1 1*s.*; A. A. Jackson, Esq., Birmingham, £1 1*s.*; W. Pearse, Esq., St. Tadye, Bodmin, £1 1*s.*; M. Partridge, Esq., Coventry, 10*s.* 6*d.*; Jno. Davies, Esq., 91, New North Road, 10*s.* 6*d.*; F. Haward, Esq., Halesworth, 10*s.*; Dr. J. Woodman, Exeter, 5*s.*

COMMUNICATIONS RECEIVED—

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MODERN OPERATIONS FOR CATARACT.

THE LETTSOMIAN LECTURES DELIVERED AT THE MEDICAL SOCIETY OF LONDON.

By R. BRUDENELL CARTER, F.R.C.S.,

Ophthalmic Surgeon to St. George's Hospital.

LECTURE III.

IT is a maxim of political economy that every learner must spoil a portion of raw material; and this maxim, in its application to the old method of cataract extraction by the flap, was rendered by the saying which Beer is believed to have originated, to the effect that every beginner would destroy a hatful of eyes before he cured one. In any literal sense, this must always have been a gross exaggeration, but still it is not the least valuable result of modern improvements that they tend to place the beginner and the expert more nearly upon a level than was formerly the case. In flap extraction, before fixation by forceps was introduced, and when the eyeball was only steadied, and supported against the knife, by the tips of the index and middle fingers of the surgeon, resting one above and the other on the nasal side of the cornea, nothing but practice could give the mingled lightness and firmness of touch which were required in order to afford security against two dangers; the first being that the support would be insufficient, and that its insufficiency would permit rotation of the eye before the knife, and consequent displacement of the section from its right position; the second, that the finger pressure would be too decided, and that it might cause the premature expulsion of the lens, followed by more or less of the vitreous body. Fixation by forceps was introduced, I believe, by the late Mr. Poland, and was applied by him to flap extraction with considerable advantage; but I am not aware that his example was at all extensively followed, and it was not set until shortly before the new methods were devised. Of these, as we all know, forceps fixation forms an essential part; and for this reason, as well as on account of the altered character of the section, it is not too much to say that every young surgeon, who possesses adequate anatomical knowledge, fair mechanical dexterity, and some practical acquaintance with the densities and resistances of the textures especially concerned, should be able to perform even his first cataract operation upon the living eye with a creditable amount of success. The chief advantage of experience consists less in its conferring mere manual dexterity than in its conferring the power of at once perceiving the nature of any difficulties or complications which may arise in the course of an operation, and the best manner of dealing with them; in its conferring, in other words, an immunity from being taken by surprise, and a readiness at any moment, and almost instinctively, to do what ever any deviation from the normal course of things

may require. I may add that, in watching young surgeons, few things have struck me more than their frequent unwillingness to avail themselves of the most admirable opportunities for leaving off; so that we sometimes see the results of a well-performed operation imperilled, or even lost, by too great solicitude about the last morsel of cortical substance, or about the relations of the iris to the angles of the wound. Both are highly important, but something must occasionally be sacrificed in regard to them in order to avoid expulsion of the vitreous body by reflex contraction of the ocular muscles. The more an operation is prolonged, the more risk there will be that such reflex contraction may occur.

In speaking of the accidents incidental to early operation, I do not intend to refer to any which are only rendered possible by the absence of adequate surgical dexterity, but to limit myself to those which must sometimes happen to every operator; and among these, as a matter of possible, although of extremely rare, occurrence, we must place injury to the lens in the course of the preliminary iridectomy. Every ophthalmic surgeon of experience has seen cases of traumatic cataract after iridectomy, either in his own practice or in that of others; and in some of these the operator would have no consciousness of having wounded the capsule. It is quite possible that a delicate capsule may sometimes split during iridectomy, without having been touched by either knife or forceps; and there are at least two other ways in which the accident may occur. The speculum will sometimes be jerked out from between the lids by muscular spasm; and, if this should happen while the knife is in the anterior chamber, the surgeon will be fortunate if he succeeds in withdrawing it without the infliction of any undesigned injury. In other cases, even when under apparently profound anæsthesia, the patient will sometimes make an unexpected movement at a critical moment of the operation. I have known a sudden and violent sneeze occur when the knife was in the eye, this sneeze being clearly reflex, and analogous to that which is produced, in some forms of photophobia, by exposure of the cornea to light. However rare such accidents, it is necessary to be prepared for them, and to take thought beforehand of the course of action which they will require.

If the surgeon is conscious of having wounded the lens in the performance of iridectomy, extraction must be proceeded with at once. A serious difficulty may here arise from the circumstance that the wound made for the iridectomy will neither be long enough to afford easy exit to the lens, nor be situated in the most favourable position for the purpose. The iridectomy wound, if made with a narrow knife, will be almost concentric with the corneal margin; if made with a broad knife, its extremities will even advance somewhat upon the corneal tissue. The mechanical difficulties of prolonging it in a suitable direction with the same knife would be great in either case, and would probably be insuperable in the latter. The best method of proceeding is to withdraw the knife, if that has not been done before the accident is discovered, to shift the fixation forceps to the left hand angle of the wound, and then to extend the incision, from the right hand angle, with the side edge of a narrow parallel-sided knife, set at an angle upon its stem, and furnished with a rounded and blunt extremity. Such a knife may be introduced into the anterior chamber, and then made to cut laterally to whatever extent may be desired, while the narrowness of its blade allows the left hand edge to be directed forwards, so as to turn the right hand edge slightly backwards, and thus keep the new portion of the incision in or beyond the corneal margin. It must be remembered that such an incision, after all, will not be in the most favourable position and direction for the exit of the lens; and the difficulties which might hence arise must to some extent be provided aginst by making it of greater length than would be necessary if it were better planned. If a piece of the iris has not yet been excised, the excision should be made to the full length of the wound; and, if an iridectomy has been made through the original small opening, a second piece of iris should be removed to the extent of the new one. It is only by this precaution that future entanglement can be guarded against. Notwithstanding the wound of the anterior capsule, the cystitome must be employed to secure that the division is sufficiently extensive, especially in the equatorial region, and then the extrusion of the lens may be attempted by very careful pressure. If it does not advance at once the use of a traction instrument becomes imperative. If the difficulty depend only upon mal-position and reluctant opening of the wound, it will be best to use Pagenstecher's scoop, the tip of which may be insinuated for a short distance behind the nucleus, and made to open the wound by holding back its posterior margin. Slight pressure with the fixation forceps will then frequently be followed by an advance of the lens; but, when the cause of retardation is in the adhesion of the nucleus to the cortex, it is best to lay aside the spoon and to use a fine loop devised by Dr. Bell Taylor, and called by him a "vectis." This loop, which occupies less room than any other traction instrument, and which obtains a very secure hold, should be glided through the posterior cortex to the inferior margin of the lens, and then bedded in the posterior surface of the nucleus by lifting this against the cornea, after which it may be used for extraction, the further margin of the loop being kept well up against the cornea as the bulk of the nucleus passes through the section. The speculum should then be removed, the lids closed, and covered with a supporting pad, while the operator waits two or three minutes for the action of the aqueous humour upon the residual cortex. After this time the lids may be reopened, any apparent cortex removed by rotatory friction through the lower lid and by gentle pressure on the cornea, or even brought away by the cautious introduction of a curette. When no more can be done in this direction, either because no more cortex is visible, or because loss of vitreous occurs or seems to be probable, the lids must be closed by the ordinary bandage. In all such cases, a certain amount of iritis must be expected; but, in many of them, it can be kept within bounds by careful and well-directed treatment.

A troublesome complication of an iridectomy, which, perhaps, can hardly be described as an accident, is the occurrence of an unusual amount of hæmorrhage into the anterior chamber. This is especially prone to happen in cases in which an immature cataract is combined with an early stage of glaucoma, or even with the increase of tension which may be produced by an increase in the bulk of the lens. However arising, increased tension produces passive congestion of the intra-ocular structures; and hence the excision of a portion of iris may give rise to a more free and more prolonged bleeding than is usual. In such a case, the blood may generally be evacuated by carefully introducing a spatula or curette within the lips of the wound, but it is apt to re-accumulate, and to fill the available space in the anterior chamber. When this is so, it frequently acts as a foreign body during the period of healing, produces protracted pain and irritation, and sometimes sets up actual iritis. Such occurrences always retard the period at which extraction can safely be undertaken, but they are less serious in their import than an insidious form of iritis which sometimes follows the iridectomy without manifest cause, and which can only be attributed to some septic influence or to some defect of nutrition. The iritis consequent upon blood irritation will generally yield

to treatment; and, as there should be no intra-ocular bleeding at the time of the final operation, there need then be no cause adequate to the reproduction of the effect. The apparently spontaneous form, on the other hand, will probably reappear after extraction; and this probability casts grave doubt upon the propriety of carrying the treatment farther, until the cataract has made such progress that the state of vision does not admit of being altered for the worse. In other words, a risk, almost as great as the risks incidental to flap extraction, takes us back to the practice of the time when flap extraction was habitually performed.

In dealing with cases of somewhat heightened tension, whether this be distinctly glaucomatous, or due to enlargement of the lens, it is necessary to diminish both the tension and the intra-ocular congestion which attends it, by the previous instillation of eserine. We must not then be content with a single application, for the mere purpose of obtaining a contracted pupil; but the drug should be applied regularly, say night and morning for four or five days, as a preliminary to the performance of the iridectomy. By this means, we shall frequently succeed in obviating the tendency to hæmorrhage which might otherwise produce embarrassment or even disaster. In all such cases, moreover, the object of the iridectomy will not merely be to destroy the continuity of the sphincter of the pupil, but also to diminish tension in a permanent manner. For this purpose the piece of iris excised must be of considerable magnitude, and it must be taken off quite close to the ciliary border.

When a sufficiently long time has elapsed since the performance of the iridectomy, the propriety of proceeding with the extraction must be considered. We may divide the unfavourable cases into two classes—those in which there is a tendency to sloughing of the cornea, and those in which there is a tendency to plastic iritis. The first-named risk, that of sloughing, is most marked where the cornea is thin and under nourished; a state which may often be inferred from an inelastic condition of the skin of the hands, and from the absorption of subcutaneous fat; and of which we obtain strong evidence when, at the time of the iridectomy, the cornea collapses or falls into wrinkles as soon as it loses the support of the aqueous humour. It was in cases of this class that Mooren obtained his most conspicuous successes by preliminary iridectomy; and they call for the adoption of his method even when the cataract is mature. I have, at present, in St. George's Hospital, a patient who admirably illustrates the value of the proceeding. He is an old and feeble man, whose left eye was destroyed long ago by disease or injury, and who was admitted with mature cataract and extreme conical cornea of the right eye. At the time of the iridectomy, his cornea fell into folds, and seemed to have scarcely an appreciable thickness; but, both then and after the subsequent extraction, the section healed readily and completely. In such cases, it is my usage to shorten the interval between the operations. There is, practically, little or no fear of iritis; and, I think, the cornea has a better chance of survival, after the second and more extensive incision into the eye, if the vascularity incidental to the healing of the first incision has not yet disappeared, so that the wound falls into a region of artificially increased blood supply. At the same time, it is of course desirable to limit the extent of the second incision as much as the size of the nucleus will permit, even if we have to assist the escape of the lens by the "schlitten-manœuvre," or by the use of some form of traction instrument. The remaining of a small portion of cortex within the eye is of less importance in these cases than in many others. It seldom causes much irritation, and is often absorbed without trouble, or at most with the effect of leaving capsular films within the eye, which will subsequently require to be torn by the use of a needle or needles. It must be admitted, without hesitation, that the modern forms of extraction, whether on mature or immature cataracts, whether performed as a single operation or divided into two, are followed, more frequently than flap extraction, by secondary films which require a subsequent operation for their removal. I do not regard this as a disadvantage: for the facts might, perhaps, be fairly stated by saying that, in many of the eyes which would have perished under the old method, the new one requires a secondary but trivial operation in order to attain a completely good result.

Whenever the risks of the final extraction seem to lie entirely on the side of plastic iritis, it is desirable to extend the interval between the two procedures rather than to shorten it, and to insure that the eye has, so to speak, forgotten the first before it is called upon to submit to the second. The greatest probability of iritis is present in the cases in which it has followed the preliminary iridectomy, otherwise than as a result of irritation from blood in the anterior chamber. A somewhat plethoric habit, a tendency to the lithic acid diathesis, and generally any imperfection or inadequacy in the performance of the renal function, are conditions which should be looked upon with grave distrust, and which should be amended, as far as any emendation may be possible, before either the iridectomy or the final extraction can be prudently undertaken. I believe there are many cases in which the prospect of success are enormously increased by two or three weeks of careful medical treatment as a preliminary; such treatment usually comprising a restricted diet, the moderate use of alteratives and purgatives, and attention to the action of the skin.

Whenever the time for the extraction of the lens arrives, there are, of course, certain risks inseparable from the actual conduct of the procedure, although these are, I think, both less numerous and less formidable than those which attend upon extraction performed in immediate sequence to iridectomy. The worst accident which can befall during cataract extraction is hæmorrhage from the rupture of a vessel in the choroid, hæmorrhage which necessarily produces detachment of the retina, and which at once extinguishes all hope of the restoration of sight. When iridectomy has been performed at an earlier period, such hæmorrhage is very unlikely to occur, since the choroidal vessels, even if diseased and weak, will have learnt to accommodate themselves to a diminished amount of support, and will be little likely to give way. I have seldom seen this accident occur in any form of modified linear extraction, never when the iridectomy and the extraction were separated by an interval of time.

The only remaining accidents which need be noted are loss of vitreous, and failure to remove the lens. I once saw a case in which the surgeon had made an incision insufficient for the exit of a very large and hard nucleus, which became engaged in the wound, but which refused to advance beyond a certain point without the exercise of more pressure than it seemed prudent to employ. The operator, therefore, determined upon the use of a traction instrument, and laid down his pressure spoon to take up a Pagenstecher's scoop. He attempted to insinuate this between the posterior aspect of the nucleus, and the posterior margin of the wound; but with the result that the nucleus returned into the eye and passed out of sight into the vitreous, a considerable quantity of which escaped. The operator made a dive after the lens, but could not find it, and had no choice but to close the eye. A day or two later, the nucleus reappeared in the pupillary region, the wound was reopened, and the nucleus was removed by a scoop without the slightest difficulty. There was no acute reaction, but the eye

*

became the seat of an insidious form of low inflammation, under which it ultimately underwent total wasting.

A more common cause of loss of vitreous is from spasm of the external ocular muscles, or from the strain incidental to vomiting. About a year ago, I performed an extraction which, up to the moment of completion, was all that I could desire. The cataract was fully mature, and the iridectomy had formed part of the procedure. The pupil was perfectly clear, and I was just taking a last look at the eye prior to the application of the bandage, when the globe was visibly compressed by contraction of the recti, the wound gaped, and a large quantity of vitreous was expelled. In such a case, manifestly, the patient is beginning to recover from the anæsthetic, and comes into a state in which volition is still suspended, and in which the wound becomes an excitant of reflex spasm. In another case, after the operation had been satisfactorily completed, the bandage applied, and I had left the house, vomiting commenced, apparently from the effects of the anæsthetic, and continued throughout the day with great severity. The patient was under the care of her usual medical attendant, who did not send for me; and, when I went in the evening, I found that the bandage had become displaced, and that the eyeball had been almost emptied by the straining. I have no doubt that he did all that was possible to arrest the vomiting; and, although I should have liked to reapply the bandage in such a manner as to secure effectual external support, it is highly probable that the mischief may have been done almost in the first effort, and that, after this, all such support would have been in vain. These two cases seem to me to furnish admirable illustrations of what may fairly be called "accidents," occurrences which can neither be foreseen nor guarded against, and by which the reasonable expectations, both of the patient and of the surgeon, may be frustrated without fault on the part of either.

A more ordinary form of loss of vitreous is when it occurs during the course of the extraction, either as a result of spasm, or from mere weakness of the hyaloid membrane, which, there can be no doubt, is much more frail, and more prone to yield in some eyes than in others. Great risk of rupture of the hyaloid, even when of normal firmness, is attendant upon a condition of imperfect anæsthesia, in which the natural tendency of the superior rectus muscle to roll the eye upwards, and to remove it out of the way of injury, is not abolished. In such a condition, the operator is compelled, at every step, to roll the eye downwards by the forceps, in order to obtain access to the region in which his proceedings are conducted; and the result is that the hyaloid is made to bulge towards the wound by the opposing traction of the forceps and of the muscle, and that it is exposed to manifest danger of giving way.

The occurrence of loss of vitreous, however occasioned, calls upon the surgeon for prompt decision with regard to the course which should be pursued. We may take, as three typical conditions, the cases in which the loss occurs after the whole of the nucleus and cortex has been removed, the cases in which the loss occurs prior to the removal of either, and the cases in which the vitreous follows the nucleus, when there is still cortex remaining within the eye.

In cases of the first class, when everything has been romoved, and when loss of vitreous follows the last step of a completed operation, there is nothing to do but to apply the usual bandage with as much rapidity as possible, and with something more than the usual degree of firmness. The prognosis, in such a case, will depend almost entirely upon the amount of the loss. If it be but small, the case will usually do as well as if it had not occurred; but, whenever the amount is large, ths eye is apt to be attacked by slow and insidious inflammation during or subsequent to the healing process; and, with few exceptions, the sight obtained is at best but very imperfect. The lost vitreous is not replaced by new material of the same kind, but only by a serous fluid, often of incomplete transparency, and liable to undergo fluctuations in quantity, generally on the side of diminution, which lead to recurring subnormal tension, and to many disturbances of the ocular circulation and nutrition consequent thereupon. I have seen several instances in which, after a large loss of vitreous, the immediate visual result was very fair, but in which vision was not long retained.

When loss of vitreous occurs prior to the extrusion of the lens, the first care of the operator should be to see that anæsthesia is complete. If it should not be so, if there should be any action of the recti muscles, or of the orbicularis, the speculum should be gently removed, and the closed lids covered with a sufficient pad of cotton wool, retained by manual support, until more of the anæsthetic has been administered. As soon as the muscles are brought into repose, the speculum should be re-inserted or the lids kept apart by an assistant, and the surgeon should at once remove the nucleus, and as much of the cortex as possible, by some form of traction instrument, generally either Pagenstecher's spoon or Taylor's vectis. If the muscles continue perfectly quiet, he may even follow portions of cortex with a smaller spoon or curette; but this should seldom be done at the cost of further loss of vitreous. The curette or spatula may be used to insure complete replacement of the iris, and proper adaptation of the conjunctival flap; and then the great object should be to get the lids closed and supported as quickly as possible.

In conditions intermediate between those last mentioned, when the vitreous follows the nucleus out of the eye, leaving some portion of the cortex behind, the surgeon is called upon to take into consideration three principal factors; namely, the amount of residual cortex, the amount of the actual and threatened loss of vitreous, and the proneness or otherwise of the patient to plastic inflammation. It need hardly be said that, in immature cases, the precise amount of cortex is difficult to estimate, although the surgeon, before undertaking extraction, should always obtain as exact a knowledge as possible of the thickness of the still transparent cortical layer. Even when this has been done, it must always be difficult to feel sure, at the moment, how much of a practically invisible material remains within the eye. The second element, the amount of actual or probable loss of vitreous, is far more easily ascertained or estimated. In some cases the first loss is a sort of gush or outburst, forcibly expelled by contraction of the recti muscles, while in others it is little more than a leakage, the result of rupture of the hyaloid without muscular spasm. In some cases the vitreous will be liquid, so that it can flow away, in others it will preserve its natural almost gelatinous consistence, and will only leave the eye with difficulty. The decision whether to close the eye, or to persevere in attempts to remove the whole of the cortical substance, must be mainly governed by considerations based upon these respective conditions, the general principle being that cortex must be removed as completely as possible, but that endeavours in this direction must not be prolonged at the expense of a considerable loss of vitreous which might otherwise be retained. The greater the assumed tendency of the patient towards iritis, the more important does the complete removal of the cortex become; but, even when this tendency is strongly marked, I am not aware of any facts which connect the occurrence or the intensity of the inflammation with the quantity of the residual irritant. My experience is rather in the contrary direction; for some eyes are very intolerant of

residual cortex, while others are very tolerant of it; and, when we consider that, in cases of the former kind, the actual quantity appears often to be increased by cell-proliferation, it must be probable that a small amount may do nearly or quite as much mischief as a large one. In patients in whom I consider iritis probable, therefore, I am extremely careful to remove the whole of the cortex when I can; but even in these, and especially in others, I do not think the prospects of a good issue are to be increased by persevering endeavours to take out as much as possible, when vitreous is escaping, and when some portion of the cortex must manifestly be left behind. I am always more disposed to close the eye, to trust to treatment for the control of inflammation, and to a subsequent operation for the displacement or division of any films which the inflammation may leave behind.

The various manipulations to which I have referred, as being generally or occasionally necessary, are manifestly much more easy of accomplishment when the patient is fully under the influence of an anæsthetic, than when this important condition is not fulfilled; and my hearers will have observed that I have more or less assumed the employment of an anæsthetic throughout. More than once, however, since the time when these agents were introduced, special objections to their being employed in cataract extraction have been advanced; and one recent writer has been so emphatic in his condemnation of them that, differing from him as I do, I have thought it right to refer to this part of the subject, and to say exactly what is on my mind. I have had considerable experience on both sides of the question, for my earlier cataract operations, by flap extraction, were all done without an anæsthetic; while of late years I have employed one almost, if not quite, invariably. I believe, in the first place, that the improved methods of operating are mainly due to anæsthetics, and would not have been brought to their present perfection without them. It would certainly not be practicable, in a large proportion of conscious patients, to plan and execute an incision, within very accurately defined limits, at the summit of the cornea; for the simple reason that the instinctive tendency of the superior rectus to roll the eye upwards, and to remove it out of the way of injury, would frequently be too strong to be resisted; while, if this tendency were overcome, against the efforts of the muscle, by forceps traction, there would be frequent laceration of the conjunctiva, and there would be frequent loss of vitreous, at quite an early period of the operation, from rupture of the hyaloid by the struggle between the forceps and the muscle, a struggle which may even now be witnessed, and which is not seldom attended by hurtful consequences, in cases in which the anæsthesia is incomplete. Still less would it have been possible, without the passive eye afforded by an anæsthetic, to carry out the series of almost experimental operations, of slight variations in the position and magnitude of the section, of which the procedure that I have endeavoured to describe is the final outcome; so that, without anæsthetics, I do not believe that either the broad lines of the operation could have been successfully defined, or that those lines could have been strictly adhered to in practice. Against the great benefits of freedom from pain, from apprehension, from hurry, and from restlessness of the eye, there is, according to my experience, only a single counterbalancing disadvantage, namely, the harm which may possibly arise from obstinate vomiting. I have only seen one instance, already referred to, in which the effects of such vomiting were destructive; I have seen many in which vomiting of moderate severity has been productive of no ill result whatever.

I have, however, seen accidents, and those of a serious character, caused by attempts to operate when the effect of an anæsthetic had been insufficiently produced, or had to some extent passed away. I have already mentioned extrusion of the vitreous as thus arising; and I think it may be said, generally, that an imperfect anæsthesia is as bad as none at all. There certainly is a stage in which there is no consciousness of pain, but in which the liability to reflex spasm is intact, and is entirely removed from the control of the volition. Such a state occurs when anæsthesia is as yet incomplete, and again when it is beginning to pass away; and it teaches that the administration of an anæsthetic for operations upon the eye is a matter not to be lightly undertaken, but one which requires to be guided by no small amount of skill and of practical knowledge. A condition in which it would be possible to amputate without the knowledge of the patient would often be insufficient for the performance of an eye operation, a proceeding in which the primary object to be attained is not so much immunity from suffering, as immunity from muscular contraction. I may say at once, that I believe there are some persons in whom the state of quiescence desirable for an eye operation is not to be attained without peril, and in such cases the administrator should be prepared to warn the operator of the difficulty, and the operator, in his turn, should be prepared to act with great promptitude in the few moments of profound repose which may sometimes be obtained.

The selection of the anæsthetic agent is a matter of considerable importance. But for its liability to occasion death, there is nothing which combines so many advantages as pure chloroform, but this liability is enough to neutralise them all. Chloroform kills, in round numbers, about one in every three thousand of those to whom it is administered; and there ought to be no deaths in ophthalmic surgery. If experience has made anything certain, I think it is that the fatal accidents from chloroform have occurred in the very cases in which there was no reason to anticipate them. I sometimes use it when I am short-handed, and when the administrator is comparatively unskilled in the use of anæsthetics, because I think it is then as safe as any other, and is more easy of administration, and more likely to be effectual than any other. Excepting in such conditions, and in the case of young children, in whom the danger to life from its effects seems to be almost infinitesimally small, I think it ought to be banished from surgery. Pure ether is an admirable and very safe anæsthetic, but it requires a boldness and freedom of administration which are only attained by practice, and, if imperfectly given, it is utterly inefficient for the purposes of the ophthalmic surgeon. Moreover, it is apt, especially if tardily and ineffectually administered, to produce a free secretion of bronchial mucus, which occasions troublesome and unrestrained coughing, and sometimes leads to sickness. When nitrous oxide gas is administered as a prelude to ether, the secretion of mucus is less likely to be troublesome, but a great amount of venous congestion is always produced, and the tissues become so gorged that every incision bleeds freely. In the performance of iridectomy, under gas and ether, we not only have an unusual amount of bleeding from the conjunctiva, or from the vessels of Schlemm's canal, if these should be divided, but we also have a large effusion of dark and unoxidised blood into the anterior chamber from the cut edges of the iris, and this blood, as already incidentally mentioned, is prone to act as a foreign body, and to exite troublesome and possibly very injurious iritis.

Judging from my own opportunities of observation, I am inclined to believe that the best anæsthetic, for general use in ophthalmic surgery, is the mixture which is commonly known as A.C.E., and which contains one part by measure of absolute alcohol, two of chloro-

form, and three of ether. A mixture of ether and chloroform was long ago suggested by very obvious considerations, but it was not found to succeed well in practice. It was merely a mixture; and, as its ingredients were of different degress of volatility, they evaporated unequally, and left the administrator in a state of uncertainty with regard to the proportion of each which might be left in his inhaler at any given time. The addition of alcohol provides a solvent for the other two, and they evaporate together. The mixture should be administered freely, from a flannel or felt cone, and the desired effect should be produced as rapidly as possible. To prolong the administration of an anæsthetic, of whatever nature, to give small doses timidly, with frequent admissions of air between them, is, I believe, the most certain method of producing disaster from its imperfect operation. By disaster I do not mean death, but incomplete anæsthesia, prolonged struggling, muscular spasm, and probably eventual sickness. The cases which do best are those in which the effect is rapidly produced, and in which it is as rapidly recovered from. It would be foreign to my subject, and beyond the limits of my time, to attempt to describe the precautions with which the use of every anæsthetic should be surrounded, but I may add that one advantage of the A.C.E. is the ease with which the mixture can be replaced by pure ether in cases which seem to call for such a substitution. When this substitution is made, moreover, the patient being already narcotised by the A.C.E., the pure ether has little tendency to produce the excessive bronchial secretion which constitutes one of the difficulties of its employment from the first. I need only add, that, more especially in cataract operations, the ophthalmic surgeon who cares for the welfare of his patients, or for his own reputation, will not lightly commit the anæsthetic to strange or unskilled hands, but will insist upon obtaining the aid of an administrator of skill and experience, who knows the special requirements of eye work, and who is capable of relieving the operator from the duty of thinking at all about the anæsthetic or its effects. The administrator should then assume entire responsibility for his share of the proceedings, and the surgeon should await his permission to commence.

I have left myself but short time in which to speak of remaining topics of great importance, such as the complications which may arise after an operation, and the treatment which they may require. Such subjects, however, can only be discussed within short limits in the most general way, because no two cases will present quite the same conditions or peculiarities, and each must be a study in itself.

One of the most troublesome of these complications, and not an uncommon one, is inversion of the lower eyelid by muscular spasm. In old people the skin covering the lower lid is often lax and distensible, and opposes no resistance to the action of the orbicularis. The surface of the eye is uneasy from the wound, and the orbicularis comes into constant reflex action. The result is that the lower lid becomes completely canted over, its margin tucked down within the retro-tarsal fold, so that the eyelashes rest in contact with the globe, where, by the irritation they excite, they provide for the continuance of the displacement. This condition never fails to produce much superficial irritation, which, if neglected, leads on to iritis, so that the position of the lower lid must always be carefully looked to, and any tendency to displacement must be remedied without delay. All that is necessary in this direction may be accomplished by contractile collodion, if only it be effectually applied; but so much depends upon the fulfilment of this condition that the application should never be committed to any but thoroughly trustworty hands. Much of the collodion sold under the name is not really contractile; and the surgeon should always test it by applying a drop to the back of his own hand, and should not use it for the patient unless, in the act of drying, it pulls the skin into strongly marked wrinkles. When satisfied on this point, the next thing is to draw the lower lid well downwards and away from the eye, and thoroughly to dry its cutaneous surface, to which, otherwise, the collodion will not adhere. The collodion should then be painted on with a camel's hair brush, not too large, which must be carried quite up to the ciliary margin of the lid, along its entire length, so that the collodion film comes into contact with the bases of the lashes, but does not pass upon the free lid margin within them. The application should be liberal in point of quantity, and should extend well downwards upon the cheek; but the most important point is that it should go up high enough. If it does not cover the upper portion of the lower lid, this upper portion will become tucked in as before, notwithstanding a patch of collodion below it. The lid should be held down until the drying of the film, which should occur within a minute or so; and, in the meanwhile, any overflow of tears should be arrested by a morsel of absorbent cottonwool. The film once dry, a little almond oil may be brushed over it, and then it will scarcely be affected by lacrimation. As soon as the surgeon has satisfied himself that the lid is completely commanded, and that no attempt to close the eye can again invert it, the ordinary dressing may be applied, and the collodion film will generally require to be peeled off daily, and renewed with the same precautions as before. I believe it is only to neglect of these precautions, or, in other words, to inefficient application, that its supposed failures have been due. In any case, however, where the close personal supervision of the operator cannot be obtained, it is better to proceed at once to a more radical plan of treatment, which cannot fail, and which consists in the excision of a strip of skin and muscle from the eyelid, parallel with its margin. The piece excised must not be too wide, lest permanent deformity be produced. It should be taken from close to the lid margin, and the wound should be united by a single fine suture. Where lid inversion has already done mischief, the bleeding from the skin excision seems to be sometimes serviceable. The state of inversion is one with which it will not do to temporise; for I believe it is never recovered from spontaneously, and that it never fails to do harm. Dr. Bell Taylor has proposed to treat it by the application of a pair of flat bulldog forceps, which pinch up and retain a horizontal fold of skin, but I have no experience of this method, which would certainly, I think, be more painful than excision. It will generally be desirable, whenever lid inversion is at all threatened, although not present in a manner sufficiently declared to call for interference, to leave off a bandage if the state of the eye will at all permit. The heat and pressure which a bandage produces seem to be predisposing causes of the exaggerated action of the orbicularis.

Practically speaking, the only other complication which can follow extraction is the occurrence of internal inflammation; and as this, in whatever structure it originates, owes its chief importance to the participation of the iris, it may conveniently be called iritis. We may say of it that it is least severe, and least likely to be attended by permanent ill-consequences, when it is excited by hæmorrhage into the anterior chamber, or by inversion of the lid, and that it is most likely to be hurtful when it is excited by the presence of retained cortex, especially if this should have undergone manifest proliferation and increase. In such circumstances, the inflammation is apt to assume a septic character, to extend to the ciliary body and choroid, and to terminate in wasting of the eye.

When iritis occurs in any severity, the treatment

must be conducted on the general principles of relieving pain, supporting strength, diminishing vascular action, and relieving tension. In these, which are practically traumatic cases, occurring in old people, mercury, I think, is seldom or never indicated. A leech, or two leeches, applied about an inch from the margin of the orbit, and repeated according to circumstances, the application of moist compresses, or of fomentations, at a temperature governed by the sensations of the patient, the performance of paracentesis of the anterior chamber, by which, together with the aqueous humour, softened cortical matter may often be removed from the eye, and the prompt division of any organised films, which may form a barrier between the anterior and the posterior chamber, will constitute the chief points which require attention. In any case in which the two chambers become completely separated, there is no time to be lost; for the accumulation of fluid which occurs behind the barrier, will soon prove permanently destructive to vision. It is useless, generally speaking, to rely upon any small opening, and the only trustworthy method, is by the free division of the tissues concerned, which, generally speaking, consist of iris, the posterior lenticular capsule, and more or less lymph which has been effused upon or between them. The plan which I find most effectual is to divide the whole of these structures, generally in a horizontal direction, by a pair of scissors which were devised, for this especial purpose, by Mr. Foveaux, formerly of the firm of Messrs. Weiss and Son.

Even when the iritis is not severe, there is generally, after the extraction of immature cataracts, some indication of its presence; and whenever it occurs, in however slight a degree, the pupil is certain to be more or less occluded, by films sometimes of a very delicate character. In some of these cases, it will be sufficient to divide the films by Sir William Bowman's elegant method, by the simultaneous use of two needles; but in many, I think the use of the scissors is to be preferred, in a direction downwards, and that it is better to make also a rather free division of the lower part of the iris. By following this plan, all risk of future traction upon any part of that membrane is finally set aside.

The comparative frequency with which pupillary films require treatment in the modern operations for cataract, and especially after operations for the removal of cataracts which are not fully mature, must not, I think, be regarded entirely as a disadvantage. All operations for the removal or division of films, whether by needles or scissors, divide also the posterior capsule, and afford free communication between the aqueous and the vitreous chambers. The presence of this communication is found, in practice, to afford great security against the occurrence of secondary glaucoma.

I have now, Sir, although in a very fragmentary and imperfect manner, endeavoured to give such a sketch of the chief features of modern cataract operations as the time at my disposal would allow; and it only remains for me briefly to recapitulate the conclusions which I have ventured to set forth. They are, that the performance of iridectomy as a preliminary operation, and the subsequent employment of a comparatively small section through the tunics of the eye, have combined to render the extraction of cataract a more simple, and hence a more frequently successful operation, than it has been at any previous period of surgical history; and that the improvements thus effected have enabled surgeons to deal with comparatively immature forms of the affection, and to rescue from impending blindness many of those who, only a few years ago, would have been left unaided until blindness was complete. These great boons to humanity have not been without their drawbacks, and the extraction of cataracts at an early date is still beset with risks of a peculiar kind, which require, in order that they may be obviated, the possession and the employment of all the resources of the healing art. These risks, however, are such as may properly be incurred in the presence of any adequate inducement; and there are very few people in whom the approach of cataract produces incapacity for the ordinary work or the ordinary amusements of life, in whom it would not be justifiable, with one eye at least, to take steps for their speedy relief. It only remains that I should tender my thanks to you, Sir, and to the Fellows of the Society, for the great indulgence, patience, and kindness, with which my humble efforts have been received.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

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(*Continued from page* 78.)

Elephantiasis.

This is a disease which, in its full development, comes within the domain of the surgeon. Its most recently ascertained history has received the fullest practical exposition from Sir Joseph Fayrer,[14] but Elephantoid Fever is essentially a "medical" disease, by early management of which the physician may sometimes hope to prevent the malady from becoming developed into surgical proportions. I have already mentioned that the habitat of Indian Elephantoid Fever is in marshy places within the range of the sea-breeze, and that it is never developed up-country nor beyond the limits of the growth of the cocoa-nut tree. Dr. Pringle, cited by Waring, says that in Cochin, a place so notorious for this disease that the malady is widely known as "Cochin Leg," there is scarcely a house in which there is not one or more affected; but that in the interior, at a distance of 10 or 12 miles inland, the disease is almost unknown. In one very notorious spot, Waring found 2,133 diseased, in a population of 48,591, or 1 in 21⅔ of the whole population. Fayrer has seen elephantiasis twice only in the pure European in India, Waring neither saw nor heard of a European case. I heard of a European in Bengal, and had under my care a young man, born of European parents in India, but who had never left that country. Dr. Waring believes that brackish water is a cause of elephantiasis. The disease is common in the Delta of Bengal to a distance of at least 140 miles above the sea; but there the sea breeze prevails. There is a salt lake close to Calcutta. In the freshes, the water of the Hooghly is brackish for some miles above that city, and the water of every well in the Delta is also brackish. Webb says that it has been seen in the child which could have had no other food than its mother's milk. Waring states that quadrupeds and birds are said to be occasionally attacked in Barbadoes and other places where elephantiasis is very prevalent. In Travancore he could hear of no cases in quadrupeds; but at Allippee, a hen was brought to him in which

[14] "Elephantiasis of the Leg—of the Scrotum."—*Clin. and Path. Obs. in India*, pp. 396-409. "Filaria Sanguinis Hominis."—*Tropical Diseases*, p. 275. "Elephantiasis Arabum."—*Ibid.*, p. 258, and "Croonian Lectures, Lecture Second," 1882. The most valuable of the earlier contributions to this subject are by H. H. Goodeve; *Beng. Med. and Phys. Transactions of Beng.* vol. vii., part 1, p. 9, and Wise, *Ibid.* p. 156; Allan Webb, *Ind. An. M. S.*, vol. ii., p. 619, and an admirable report upon "Elephantiasis, as it exists in Travancore," by Dr. Edward John Waring.—*Ibid.* vol. v. p. 1. "Elephantiasis Arabum, or Cochin Leg," by Dr. Francis Day.—*Madras Quart. Jour. of Med. Sc.*, vol. i., p. 37.

one leg was very much enlarged; whether this really was the disease appeared doubtful; but it certainly bore a strong resemblance to it.

The gravest results of Elephantoid Fever, enormous integumentary growths, frequently attended with oozing varix of the lymphatics of the parts, vary greatly in different paludal localities. In and around Calcutta scrotal tumours and elephant-leg abound, and the labia and nymphæ of the female are sometimes attacked. I have seen cases of elephantoid enlargement of the integument of the forearm from the direction of Orissa. The hands are often affected in Travancore. At Chittagong, general as the paludal influence was, I never saw the scrotum attacked, but the prepuce alone was liable to suffer. I removed the growth in two of these cases. In one the mass, when dissected off, weighed two pounds.[15] This form of disease is occasionally seen near Calcutta. So rare is scrotal tumour in Travancore that Waring found it in only three cases out of 945. In Bombay the scrotum is often affected where the prepuce escapes. It appears that, there, the leg is seldom affected.

When the leg is affected, inflammation in rare cases proceeds to sloughing of the whole of the affected integument, leaving the muscles bare.[16] In a case, probably of elephantisis, by Dr. A. Garden, all the structures of the leg mortified.

The history, in all cases, is that the patient suffers from periodical attacks of intermittent, attended with great pain and swelling of the affected part. When the fever subsides the local swelling is diminished and the pain abates; but, after each successive attack, the tumour gains some accession of bulk, until, in course of years, the scrotum, for example, may attain a weight of a hundred and fifty pounds and upwards.

Waring describes the Elephantoid Fever of Travancore as characterised by a cold, hot, and sweating stage, constituting together a true paroxysmal fever, except that, generally speaking the paroxysms are more prolonged and severe in their character, mostly extending over a period of three days, and sometimes longer. There is in most cases most distressing tensive headache, lasting throughout the cold and hot stages. The cold is the most marked and severe stage. It lasts one or even two whole days, and all patients speak of it as the most painful and dreadful part of the disease. The hot stage appears also in most cases to be very severe. The sweating stage is not always present and is generally very mild; the perspiration is described as literally streaming from all parts of the body. Dr. Francis Day had a patient who died from exhaustion occurring at the termination of a paroxysm of Elephantoid Fever.

Out of 226 cases specially examined, Dr. Waring found a previous history of fever in 221, or 99·11 per cent. In the two cases it is probable that malarial influence was at work. Waring shows that when fever ceases, there is no further enlargement of the hypertrophied part.

All authorities have noticed the fact that, like my attacks of Chittagong Fever, Elephantoid Fever frequently recurs every month. The natives believe that it is influenced by changes of the moon. Both Goodeve and Wise appear to consider that lunar influence is thus operative. Webb calls this fever "Moon Fever."

Writing lately,[17] Dr. S. C. Chatterjee says, "with every approach of the full and new moon there is generally an exacerbation of fever with intensification of the accompanying symptoms showing increase of the morbid growth.

Dr. Waring has given a remarkable analysis of 224 cases, in which he was informed that the febrile paroxysm occurred — once monthly in 38; twice monthly in 37; three times in 17; four times in 6; five times in 5; once in 2 months in 10; once in 3 months in 24; once in 4 months in 10; once in 5 months, 3; once in 6 months, 9; once in 7 months, 2; once in 12 months, 8; once in 24 months, 1; irregular in 43; had only one attack, 4; no fever for one year, 2; for two years, 2; for three years, 1; for ten years, 1; for fifteen years, 2. Dr. Waring adds that, however diversified may be the interval between the attacks, yet, in the majority of instances the febrile paroxysm is stated to recur in the same individual with great regularity. A few observations in cases where the attacks are monthly, with a view to ascertain whether they have, in reality, any coincidence with the changes of the moon would either dispel a popular error or establish a remarkable law of periodicity.[18]

It does not appear that great splenic or hepatic enlargement has been noticed in any case of elephantiasis. But Webb says that, in the fatal cases which he has examined, "disease of blood-making organs, as the spleen, &c., has always been found." He also observed that "disordered excretions, particularly that from the kidney, occur during rapid progress of the disease."

Reports of careful microscopical examinations of the diseased structures have been cited by Webb and Fayrer. "They show," to use the words of the latter authority, "that though there is a great disturbance in the proportions of the histological elements, there is, after all, nothing really new." There is, in fact, "simple hypertrophy of the elements progressing most rapidly and conspicuously in parts, like the scrotum, labia, or certain portions of the integument where lymphatics most abound."

The existence of filariæ in the blood of these patients both in the nævoid or lymphatic and simple forms of the disease, has been proved by many observers; but, as these nematodes are not only present in persons apparently in perfect health, but also in association with many other forms of disease, it cannot yet be said, with certainty, that the parasite has any special relation to this malady; still, our well ascertained facts are bringing us to the verge of such a conclusion. Thus Lewis, Fayrer, Manson, Vandyke Carter, and others afford us the following data:—Chyluria, more properly lymphuria, is a lymphatic disease, so is elephantiasis. In both there is an exudation of lymph, the loss of which "exhausts the patient, just as the loss of so much blood would exhaust him." In lymphuria, the presence of filariæ is constant. Vandyke Carter has seen filariæ in elephantiasis. The increment of this latter disease is periodic. Sonsino and others observe that filarious lymphuria or hæmato-lymphuria is intermittent, with long intervals of apparently complete recovery. It now remains to be shown whether parasites *always* attend elephantiasis. Fayrer, having clearly set forth these data, judiciously deprecates hasty generalization upon them. More information regarding the association of filaria and elephantiasis is needful, and may be expected from India, especially

[15] Webb considered that when the disease attacks the prepuce or nymphæ, it is due to syphilis. See case of enormous preputial elephantiasis, 14 inches long and 12 in circumference, in a negro æt. 25, born in Africa, and sent to England from the West Indies. —*Webb. Diseases of Prepuce and Scrotum, Plate viii.*

[16] Day.

[17] *Ind. Med. Gaz.* June 1, 1880.

[18] A review of the early literature of this important question will be found at p. 113 of Dr. Henry Goodeve's sketch of the "Progress of European Medicine in the East"—*Cal. Med. and Phys. Trans.*, vol. 8, part 2—a memoir of the greatest interest and value to Indian physicians. Dr. Balfour wrote much on the effects of sol-lunar influence in fevers. His first paper appeared in 1789. A very interesting series of "Cases Illustrative of the Influence of Lunar Agency in Various Chronic Diseases," was published in 1839, by Mr. B. J. Murray—*Ind. Jour. of Med. and P. Soc.*, vol. iv, p. 570. See also p. 24 of the same volume, for a very careful review of the question "On Lunar Influence in Malarious Fevers," by Dr. W. J. Moore—*Ind. Med. Gaz.* for June and July, 1869.

upon (1) Manson's remark, that the geographical distribution of elephantiasis is much the same as that of the mosquito; and upon (2) Sonsino's conclusion that, although apparently the intermediate host of filaria, the mosquito probably plays with these parasites a part similar to that of birds with respect to vegetable seeds. Again, (3) upon the suggestion raised by that authority,[19] do lymphangitis, and adenitis, and lymphatic dilatations and rupture, with extravasation and lymphorrhagia (as in lymphuria and lymph scrotum), depend upon obstruction of lymphatic channels? Also, (4) upon the question, is lymphuria of *frequent* occurrence in elephantiasis?

Few of my readers can have failed to study with great interest Dr. Manson's most able explanation of the highly probable train of events, by which he argues that elephantoid disease is caused by embolism of lympathic glands by ova prematurely expelled by filariæ.[20] Dr. Manson shows that the parent filaria is normally viviparous, but that, like other animals, it is liable to miscarry, and the immature ovum which, rolled up, enclosed in its chorion, is of much larger diameter than the long sinuous body of the matured embryo, becomes an embolus. He gives two cases—1, of lymphatic œdema of the legs; and, 2, of lymph scrotum—in which ova of filaria were found in the lymphatics. This is, he believes, the true pathology of the elephantoid diseases: "1st, parent filaria in a distal lymphatic; 2nd, premature expulsion of ova; 3rd, embolism of lymphatic glands by ova; 4th, stasis of lymph; 5th, regurgitation of lymph, and partial compensation by anastomosis; 6th, renewed or continued premature expulsion of ova; 7th, further embolism of glands." This process, he adds, "according to the part of the lymphatic system it occurs in, the frequency of its recurrence and its completeness, explains every variety of elephantoid disease." Mr. Jonathan Hutchinson has argued[21] that between the permanent solid œdema with hypertrophy of the skin, which finally results from recurring erysipelas and true elephantiasis; the differences are only those of degree. He holds that from such cases of erysipelas to true elephantiasis it is but a few steps, and he avows his conviction, "that we shall make a definite simplification in our nosology when we class the latter disease as in the main a result of chronic and recurring erysipelas," which he regards as being "simply a specialised form of inflammatory action, and not, as it is commonly defined, a specific fever." It appears to me that the recent practical observations, made in China and India, which I have cited above, place erysipelatous œdematous thickening, and all other hypertrophic conditions of the integument, however closely they may simulate true elephantiasis, in progress and in mere external aspect, quite apart, in pathology, from this latter disease, unless it can be shown, as Mr. Hutchinson does not appear to think of showing, that recurring erysipelas, leading to hypertrophy, is caused by filariæ.

[19] Epidemiological Society, May 3rd, 1882.
[20] *China Customs Gazette*: Medical Reports for the six months ended March 31, 1882; and *Medical Times and Gazette*, February 17th, 1883, p. 89.
[21] "On Certain Diseases allied to Erysipelas."—*Medical Times and Gazette*, January 6th, 1883, p. 4.

The St. John Ambulance Association.

A meeting was held at Erith, last Saturday, when certificates were presented to the police, and other classes, by Mrs. Clarkson Maynard, Sir Edward Perrott, Bart., representing the Order of St. John. An interesting incident in the proceedings was the presentation to the lecturer, Dr. Maynard, of a very handsome drawing-room clock, subscribed for by his pupils, as a mark of their appreciation of his courteous kindness and unsparing efforts to promote the success of the classes.

AMENORRHŒA AND VICARIOUS MENSTRUATION.

By SAMUEL WILKS, M.D., F.R.S.,
Senior Physician to Guy's Hospital.

I have been much impressed with the practical importance of the lecture published in this Journal by Dr. Matthews Duncan, on "Amenorrhœa and Vicarious Menstruation," for although the views therein contained are no doubt in accordance with the opinions of many experienced men, I cannot but think that a large number in the profession require to be roused up to their truth. As regards vicarious menstruation, I have never published my opinions on the subject, but as a teacher of students, I have always denounced the absurdity, as well as the error in fact, of a belief in this imaginary disorder. I have had considerable experience of diseases, both in public and private practice, and I am still waiting to see an instance of this curious condition before I can throw off my incredulity. It seems to me that some of the greatest advances in medicine have been not so much by adding new facts to our knowledge, as by getting rid of old wives' fables, which, originating in the dark ages, have finally undergone a kind of glorification in the medical mind.

If there be no such thing as vicarious menstruation, the subject had better be eradicated from our medical books, and be no longer instilled into the minds of the young, as is now, unfortunately, the case, as I know from long experience as an examiner. Such questions as the causes of hæmoptysis and hæmatemesis are amongst the commonest put to candidates for diplomas, and one never fails to hear much about vicarious menstruation. I have seen my late colleague, Dr. Peacock, at the College of Surgeons—a man of the mildest temper—get really angry when student after student would give vicarious menstruation as the first cause for hæmatemesis, looking over such frequent conditions as ulcers or cirrhosis. The reason was clear: their memory was impressed by the very strangeness and oddity of the disorder, and so it came first to the front.

But lately having had to correspond about a case of hæmatemesis, in which vicarious menstruation was suggested as a cause, I was referred, in consequence of my scepticism, to Watson's lectures, a gospel which could not be gainsayed. I gladly refreshed my memory, but was certainly surprised to find that the author regards this condition as a very common occurrence. It is remarkable, however, that he relates no case of his own, but is content to give particulars of two cases, which date back nearly a century from the present time. Sir T. Watson says, "Women are liable to perverted menstruation (so to call it) through other channels than the natural one. Hæmorrhage from the stomach occuring vicariously of menstruation is abundantly common. I told you, in a former lecture, that patients will sometimes menstruate, for years together, through the lungs, more commonly do they menstruate through the stomach." It is very significant that Sir Thomas mentions no case coming within his own knowledge, but is content to relate a case which was told him by Dr. Latham, and ends the story by saying, "This was the woman's own account, and there appeared no reason to question its accuracy." His other case is quoted from Pinel, and is that of a woman who spent her life in the *Salpêtrière:* "This woman continued to *menstruate through her lungs*, at each monthly period, from her 16th to her 58th year, *i.e.*, during 42 years." It may be observed how the change of locality of the function

lengthened its activity to a very advanced period of life.

I feel great reluctance in thus criticising so esteemed a writer as the late Sir T. Watson, but the greater the weight of his authority, the more need there is of thoroughly sifting the truth of doctrines of so extraordinary a nature as I have quoted.

As regards the other subject of Dr. Duncan's lecture, amenorrhœa, I will only say a few words, since it is treated as a substantive complaint by many gynæcologists. For my own part, I know nothing of such a disorder, nor of such remedies as emmenagogues. I believe myself that amenorrhœa, like many other complaints, is the remnant of a popular delusion, and if so, it should be eradicated, like the other disorder, from the medical mind. I have a letter in my desk, written by a qualified medical man, in reference to a young lady, the subject of phthisis, in which he says, that if I could give an emmenagogue to bring on the menstrual function, he had no doubt the patient would get better of the chest disease. I wrote back to say that I heartily agreed with him. This is only an extreme example of what one hears daily in cases of chlorosis and other disorders of girls. Feeling, therefore, so much in accord with the sensible opinions propounded by Dr. Matthews Duncan, I trust they will find their due weight on the minds of the younger members of the profession.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

Cases under the care of Mr. GODLEE.

The following are short notes of a few cases which have occurred recently in the out-patient practice of this hospital. They are none of them unique, or indeed very rare, but taken together form a somewhat interesting group, as illustrating the manner in which different morbid conditions may be handed down from parents to offspring, or may at least occur in more than one member of the same family.

Fractures of Bones.

The father of the family, the history of which is to follow, is a healthy man between 30 and 40 years of age, who has never broken any bone; he has a brother who twice broke his arm, both times in fighting.

The mother died quite recently of an abdominal tumour, the nature of which could not be ascertained from the death certificate, which was seen by me. She had been a healthy woman previously, but once broke her arm by falling down stairs. She had two miscarriages after the birth of her second child.

There does not appear to be any other member of the family who is specially liable to fracture, except the children.

Eldest son, W., was twelve years old when he came under observation. He was one of twins, the other having been born dead. He had been under treatment for rickets and bronchitis till he was two years old, since which time he is said to have been healthy. When nine months old, he fell from a high chair, and broke his left femur about the middle, and it is said he dislocated the hip as well; the bones united in seven weeks. At thirteen months, he fell while standing by a chair, and fractured both bones of the left forearm, dislocating the radius backwards. The dislocation remains unreduced, but has left a useful joint; the fractures united in five weeks. Some time later, he broke his left forearm again near the wrist. When eleven years and four months, he struck his right forearm against his brother's elbow, and fractured it about the middle; good union occurred in five weeks. When eleven years and eleven months, he broke his left fibula three inches above the malleolus. The account he gave of the accident was, that a week before he had struck his leg against a door-post, it was swollen and sore for three days, but then recovered; three days later, however, his younger brother kicked him while asleep, or is supposed to have done so; at all events it is certain that the bone was fractured when he came to the hospital; good union occurred.

T., æt. ten, a boy, when four years old, rolled down two flights of stairs, and later on, fell from a height of ten to twelve feet, on to some stones without sustaining any injury.

A., æt. five years nine months, said to be a healthy boy. Thought to have had rickets when young. When three months old, fell off his chair and broke his clavicle. At one year and nine months, he rolled off the bed and broke his left femur; union occurred in five weeks.

E., æt. three years, seems to be a healthy girl, but her fontanella is not closed, so it may perhaps be assumed that she is ricketty. At fourteen months, she slipped off her mother's lap, and broke her left forearm above the wrist. A little later on, being lifted into bed, she struck her foot against it, and sustained some obscure injury.

A., a boy, æt. thirteen months, is a sickly child, but has sustained no fractures.

This is certainly a ricketty family; but the question will suggest itself, whether the tendency to fractures, which is undoubtedly greater than is often met with amongst ricketty children, has not been inherited, with other peculiarities, from the parents; and also whether, supposing the mother's tumour to have been malignant, this may be an example of brittle bones occurring in a family who suffer from a cancerous taint.

Hereditary White Patch of Hair.

A female child, æt. six, who was brought to the hospital for ringworm, was noticed to have a patch just above the middle of the forehead, where the skin was white; and the lock of hair growing from it was almost, if not quite, white. The mother had a precisely similar condition, and said that the lock had, at one time, been as long as the rest of her hair, but she had now cut it short. She also said that it was hereditary in her family, having occurred in two of her sisters and one brother, in her father and her grandfather, and that one of her sisters had four children similarly affected, all girls.

Talipes.

A child, seven weeks old, was brought, suffering from talipes equino-varus on one side. It had a very small fontanella; held its head back, and had a slight deformity of both ring-fingers, which were turned back at the second joints. It was the youngest of six children; the eldest also suffered from club-foot. The father had one brother and one sister; the former has eight children, one of whom, a girl, has talipes; the latter has ten children, one of whom, also a girl, has talipes.

Spina Bifida.

A boy, aged six days, had a spina bifida of moderate size in the lumbo-sacral region, the surface of which was covered with granulations and ultimately cicatrised with contraction of the tumour; both legs were contracted, and almost completely paralysed, and there was no power over the rectum or bladder. It afterwards grew fat and strong, but has developed well-marked hydrocephalus.

The mother has eight children, another of whom had spina bifida, but died when eleven days old.

Hæmorrhagic diathesis.

This is only another example of the well-known tendency of the peculiar affection to be transmitted through female members of the family to their male children.

M. L., æt. one year and ten months, presented all the characteristics of the hæmorrhagic diathesis; it was bleeding at the time from its tongue, which it had bitten; and there was the usual difficulty in arresting it. The grandfather had bled, and there was a vague history of the same thing in some great-uncle, but no trustworthy evidence could be obtained. The grandfather had two daughters only; the eldest daughter has two children, a boy and a girl; the boy bleeds. The mother has had six children, four of whom were girls, and of these two are dead, one from "consumption of the bowels," and the other from "malnutrition;" of the two boys, the elder does not bleed, and the younger is the present patient.

It is unnecessary to add further comment on these cases, which, as far as they go, speak for themselves, as illustrating what Mr. Hutchinson has recently brought distinctly before the profession under the name of the "pedigree of disease."

Medical Times and Gazette.

SATURDAY, FEBRUARY 9, 1884.

The Speech from the Throne, delivered on the opening of Parliament, on Tuesday last, referred to several measures of great weight and importance which are to be presented during the present Session. A Bill for the enlargement of the Parliamentary Franchise throughout the kingdom is to be brought in as soon as possible; the extension and reform of Local Government is to be one of the subjects of ligislation, and a Bill is to be presented for the extension of the Municipal Government to the whole metropolis; and measures relating to the security of Life and Property at Sea, to the Railway Commission and its powers, and to other subjects sure to elicit great differences of opinion, and to excite great opposition were mentioned. But the Speech contained no mention of any measure directly affecting the medical profession; nor was any reference made in it directly to sanitary matters, but it did state that the extension and reform of Local Government will include the regulation of traffic in intoxicating liquors, and Government will introduce a measure for the closing of public-houses on Sunday, in Ireland.

In the House of Commons notice was given by Members of the Government of other Bills also on disputed questions besides those named in the Queen's Speech; as for instance, a Bill to be introduced by the Attorney-General for enabling accused persons in criminal cases to give evidence. All these measures will leave Her Majesty's Government very little time, and unless they are very watchful less opportunity for effectually dealing with the Medical Acts Amendment Bill, which is, however, to be introduced at an early date. Private members also press eagerly forward to supply their co-legislators with great plenty of work. The Chairman of the Metropolitan Board of Works proposes to bring in a Bill to confer further powers on that Board in relation to the supply of water to the metropolis. Mr. A. J. Balfour intends to call the attention of the House to the condition of dwellings in crowded parts of large towns, and to move a resolution on the subject; Mr. Cohen asks for leave to bring in a Bill to secure compensation to occupiers and tenants of houses in certain cases where dwellings are taken or demolished under statuary or compulsory powers; Mr. Monckton for a Bill for the sanitary inspection of dwelling-houses; and the hon. member for Lambeth purposes to call attention to the subject of Common Lodging House Acts, and of the houses occupied by several families of the working classes. Dr. Cameron has brought in a measure to provide for the regulation of cremation and other modes of disposing of the dead; and Mr. H. Richard desires to bring in a Bill to amend the laws relating to cemeteries. Mr. Story Maskelyne will move for a select committee to enquire into the operation of the Acts for the Preservation of the River Thames. Mr. Stevenson, Mr. McLagan, Mr. Vivian, Mr. Coleridge-Kennard, Mr. C. Wilson, and Mr. T. Fry will bring forward measures for dealing with the sale of intoxicating liquors. Some old measures will also be again brought forward—Mr. P. A. Taylor, notwithstanding the crushing defeat his pet measure met with last year, will once more move the repeal of the compulsory clauses of the Vaccination Act; Mr. Anderson and Mr. Labouchere, wish to amend the Cruelty to Animals Act; and Mr. Broadhurst takes under his care a Bill to amend the law relating to marriage with a deceased wife's sister; and Mr. Warton desires to introduce a Bill to restrict the sale of patent medicine, and to call attention to the sale of certain patent medicines containing poisons; both of which subjects certainly hardly demand reform.

It is stated that the Government has decided to support the Bill to be brought in by Mr. P. A. Taylor, M.P., and backed by Sir Joseph Pease, M.P., and Mr. J. R. Hollond, M.P., for the repeal of the compulsory clause of the Vaccination Act. If passed, the Bill will initiate a very hazardous experiment. There are, we know, even in our profession, thoughtful and experienced men who hold that vaccination could be as efficiently, if not more efficiently, carried out if left entirely voluntary. The mere fact of its being compulsory, they say, sets people against it who would otherwise willingly submit to it. Martyr-making never helps a cause, we are told. We fear that nothing will convert either side, but the failure or success of the experiment which Mr. Gladstone seems bent on making. Every one would witness, with pleasure, its success; but the Government ought fully to realise what failure would mean before they throw over compulsion. Are they prepared to see the annual deaths from small-pox run up by a few thousand for the sake of a crotchet?

Mr. Brudenell Carter gave the last of his Lettsomian Lectures on Cataract, at the Medical Society, on Monday last. He reviewed the accidents incidental to early operation, the risks of the preliminary iridectomy,

and of the ultimate extraction. It was pleasant to hear that one of the results of modern improvements in the methods of operation, was to place the young beginner and the expert more nearly upon a level than was formerly the case, and that Beer's maxim to the effect "that every beginner would destroy a hatful of eyes before he cured one," was yearly becoming less and less true. The risks, advantages, and disadvantages of anæsthetics were next touched upon; the orator expressing himself in favour of what he pithily called the A.C.E. mixture (alcohol, chloroform, and ether), and what Billroth calls the 1, 2, 3 mixture, to denote the proportions in which the compound should be made. The complications which may arise after operation, and their treatment, brought the lecture to a close.

Mr. Brudenell Carter himself tersely summarised the three lectures as follows:—They showed that the performance of iridectomy as a preliminary operation, and the subsequent employment of a comparatively small section through the tunics of the eye, have combined to render the extraction of cataract a more simple, and hence a more frequently successful, operation than it has been at any previous period, and that these improved methods now enable surgeons to deal with the disease at a comparatively early period of its history.

At the meeting of the Pathological Society's Meeting, last Tuesday, sporadic cretinism formed the first and chief part of the evening's entertainment. Mr. Bowlby shewed how the long bones became stunted by the ingrowth of connective tissue at the growing end, from the deep layers of the periosteum, and Dr. Barlow added another plea in support of the absolute non-identity of this disorder and rickets. He also demonstrated that absence of the thyroid gland is not a *sine quâ non* in sporadic cretinism. It is, indeed, very seldom that two such good papers on the same subject are read at the same meeting of this Society.

Dr. Hale White exhibited a section and drawing from a case of fibroid disease of the heart, in which death had taken place suddenly, without previous symptoms, and Mr. Benton communicated a case of hard carcinoma of the œsophagus. Sir Henry Thompson brought forward a villous tumour of the bladder, which he had lately removed, and also shewed four specimens of sacculated calculus. The narration of this latter group, led to a smart little passage at arms between Sir Henry and Mr. Thomas Smith, and Mr. Black, as to the differential diagnosis between a sacculated calculus and a calculus impacted in the ureter but prolapsed into the bladder.

The annual meeting of the Obstetrical Society was held on Wednesday evening. Dr. Matthews Duncan exhibited Auvard's "couveuse," or "nest," as Dr. Duncan preferred to call it, for the rearing of premature children, a contrivance which is stated to have reduced the mortality among such by nearly one-half. Dr. Godson exhibited Hearson's "incubator," which was described to the Society by the inventor. This, intended for the same purpose, is said to be automatic in action, but is more costly, and less simple. Some specimens were exhibited, notably a uterus, removed, with success by the vaginal method, by Dr. W. A. Duncan. The rest of the evening was taken up with the business of the annual meeting, and the President's address.

A communication will be made by the President at the meeting of the Royal Medical and Chirurgical Society on Tuesday next, from Dr. Straus of Paris, chief of the French Scientific Commission, sent to Egypt to investigate the cholera. Dr. Straus's microscopical specimens will be on view half-an-hour before the meeting, and Prof. Marshall's communication will be made at about 9.30, after the discussion of Dr. Broadbent's paper.

Sir Joseph Lister was entertained at dinner by the Manchester-Edinburgh University Club, at the Queen's Hotel, in that city, on the 31st ult., and the men of the North, showed, by the warmth of the welcome which they accorded to him, their high appreciation of his personal character, and of the value of his services to the science and art of surgery. In responding to the toast of his health, which was proposed by Dr. Thorburn, Sir Joseph Lister said that it was with great hesitation he had accepted the honour recently conferred on him, an honour which he had never coveted. When, however, the Prime Minister, on behalf of Her Majesty, offered him a baronetcy, in recognition of "the distinguished services rendered to his profession, and to those interests of suffering humanity with which it is inseparably connected," he felt, on reflection, that he could not decline what was really a tribute to those principles which he had so long striven to maintain. Remembering, however, that some of the grandest heroes in the history of British surgery—men in the presence of whom he felt like a dwarf amongst giants, men like Cheselden, Hunter, Abernethy, and Syme—had gone to their graves with no other recognition than the imperishable renown that attached to their achievements, he would almost have been pleased to remain untitled.

The graceful and unaffected modesty which gave a charm to Sir Joseph Lister's speech at Manchester, has been characteristic of him throughout his career; and has, it may be argued, been instrumental, in no small degree, in securing the widespread acceptance of his principles and practice during his own life-time, and their titular acknowledgement, while he is still in the prime of his days. Had his views been advocated with acerbity and great personal assertion, they would have aroused an antagonism which would have delayed their general adoption, and he might have sunk into his grave, like the great surgeons he named, without any social distinction. But while steadfastly maintaining his position, and neglecting no line of argument that could advance his principles, Sir Joseph Lister has never condescended to clap-trap, and has been studiously considerate to his opponents, and has thus pursued the long campaign in which he has been

engaged, unembarrassed by those personal skirmishes, and outpost irritations which waste time and retard progress.

A CHARACTERISTIC instance of his modesty and aversion to noteriety, has come to our knowledge lately. When the Empress of Germany passed through London some years ago, she sent for Sir Joseph, then Mr. Lister, to Claridge's hotel, where she was staying, and formally thanked him for the benefit which his discoveries had conferred on the Fatherland. Listerism, she said, had, to her knowledge, saved thousands of lives and limbs in Germany, and she could not be in London without telling the author of that system how highly she valued it. It can scarcely be doubted that in the case of many surgeons, some intimation of such a singular mark of imperial favour would naturally and justifiably have found its way into the papers, but Mr. Lister omitted to mention the incident even to his friends, and it was only recently that the fact of such an interview having taken place between him and the Empress leaked out.

AN epidemic of canine chorea is reported from Liverpool, by Mr. W. J. Welsby, in the pages of a contemporary. The first pup affected was one of a litter of eight, and the chorea came on just after the distemper. The puppies were then separated, three being left with the one affected with chorea. Two days later, these three all had chorea; two of them were then removed and kept separate, and these recovered, the others, *i.e.*, the one first affected and the one left with it, died; no lesions were discovered in the brain or spinal cord, but we are not told that these were examined under the microscope. It is noteworthy that in the case described by Dr. Gowers and Dr. Sankey, in the *Medico-Chirurgical Transactions* for 1877, the affection followed the distemper.

SCIENCE and common sense have won a notable victory at Oxford. It will be remembered that in June last a sum of 10,000*l.* was voted by the University for the purpose of erecting and furnishing a laboratory for the new Professor of Physiology, Dr Burdon Sanderson, and it was thought that, the principle once admitted, the formal vote for the selling out the necessary stock would pass Convocation without difficulty. But Dr. Sanderson had declined to pledge himself to dispense with experiments on living animals in the prosecution of his researches, and the anti-vivisection party determined to import into Oxford the obstructive tactics which have met with so much success at Westminster. They declared that the vote of June had been snatched by a small majority of three, in the absence of many non-resident M.A.'s who knew nothing of the matter until they saw in the papers that it had been decided, and they sent out an urgent whip, calling on all who had agreed with them to come to Oxford and vote against the proposal. If they had been successful, the only result would have been that the authorities would have been obliged to obtain the necessary moneys in another way. As it is the obstructives have been out-voted by a much larger majority than that by which the proposal was originally carried. The effect of this ill-advised attempt on the part of non-residents to dictate to those who are responsible for the University teaching has been that a carefully regulated vivisection—and that is all that Dr. Sanderson demands—has been practically sanctioned by the Oxford graduates by a majority of 188 votes to 147.

THE Cambridge Medical Graduates' Club are about to give a conversazione to their professional brethren of the sister University. Graduates of either University, who are at present studying medicine in London, will also be invited. The 29th of February having been selected as the most suitable day, the committee have decided to protect their unmarried guests by excluding ladies in favour of the fragrant weed.

THE deaths last week in London were 450 below the ten years' average, and the death-rate was 20·7 per 1,000. The deaths from zymotic disease were 59, and those from respiratory diseases 281 below the average. The past five weeks, during which the death-rate has averaged 20·4, or nearly ten per 1,000 lower than it was in the corresponding period of 1880, has been quite an exceptional period, so warm a January not having been known for years. The progress of sanitation is reversing the saying, that "a green Yule makes a fat churchyard," which was, no doubt, true enough when vast tracts of country were undrained, and typhoid and ague committed their ravages unchecked. In the present mild winter there have been more illnesses in the metropolis of an agueish nature, than have been known for years. A century, and still more, two centuries, ago, in such a winter London physicians would have had their hands full of them. We are apt to forget that even great personages used to die of ague.

THE most fatal zymotic disease, both in London and the other 27 great towns, still continues to be whooping-cough, which was credited last week with 85 deaths in the former, and 14 deaths in the latter. That is to say, whooping-cough killed just 50 more children in London, than it would have done if it had been no more fatal than in the other large towns. We again assert that this excessive fatality of whooping-cough is a subject which calls for attention. During the last quarter of last year, the deaths from whooping-cough in London were 380, while in the 27 other great towns, which have in the aggregate a population of about 700,000 more than London, the deaths were 385, so that it is to be hoped that this recent disparity is only a passing occurrence.

THE Registrar-General's return for the last quarter of 1883 has just appeared. The birth-rate, 31·8 per 1,000, was 2·4 below the ten years' quarterly average, and lower than in any corresponding quarter since 1855. The death-rate, 19·1 per 1,000, was also 1·8 below the ten years' average, though not so low as in the last quarter of 1881. If the death-rate had been as high as the average in the forty-five preceding corresponding quarters, seventeen thousand more persons would have disappeared from amongst us; or, in other

words, every doctor in the kingdom would on the average have had one more death to certify. In the chief towns the death-rate was 20·7; in country districts 16·6; the former being 2·2, and the latter 1·4, below the ten years' average. The metropolitan death-rate for the quarter was 20·3, and in the twenty-seven large towns, 21·9; Manchester heading the list with a rate of 27·9.

During the quarter, scarlet fever was the most fatal of the zymotic diseases. It was exceptionally prevalent in Wigan, Ashton-under-Lyne, and Dudley. Diarrhœa came next, and was again most fatal at Dudley. Measles was most fatal at South Shields, enteric fever at Preston and Wigan, and whooping-cough at Huddersfield. The death-rate from diphtheria during the quarter was higher than in any corresponding quarter during the last fourteen years, but as the Registrar-General remarks, the returns were so unsatisfactory that it is really impossible to say with certainty whether there has been a real increase in the disease, or only an increased use of the term in certificates. It was very prevalent in London and its neighbourhood, the death-rate from diphtheria in the metropolis being 0·29, and in the rest of Middlesex 0·40 per 1,000, whereas the rate for the whole country was only 0·18, and the average rate for the ten preceding last quarters only 0·14. The number of deaths from diphtheria in London during the quarter was 288, and in the other 27 great towns (with an aggregate population of 700,000 in excess of the metropolis) it was only 134. It is difficult to believe that all this difference is to be accounted for by irregular registration. But we dwellers in London may congratulate ourselves that our state as regards diphtheria prevalence compares most favourably with that of some of the continental cities. In Paris, with a population of over two millions, there were during the quarter 502 deaths from diphtheria and croup; in Amsterdam, with a population of 350,000, as many as 434 deaths, and in Berlin, with something over a million inhabitants, there were close upon a thousand deaths from the same disease.

In the short summary of the returns for 1883, appended to his quarterly report the Registrar-General states that the birth-rate in England and Wales, 33·2 per 1,000, showed a further slight decline from the steadily decreasing rates of the six preceding years, and was lower than in any year since 1849. This progressive decline in the fecundity of English women, though partly traceable to commercial depression, is a phenomenon to be noted. The death-rate for 1883, viz., 19·5 per 1,000, was, with the exception of 1881, lower than that recorded in any year since registration came into operation in 1837. The mean annual death-rate during the first three years of the present decade, 1881–1890, was 2·1 below the mean rate in the preceding ten years, 1871–1880; nearly 165,000 more people would have died in the three years if the mean rate of that decade had been kept up. The deaths from zymotic disease in 1883 numbered 58,272, and were as many as 13,216 less than the number recorded in 1882. The zymotic death-rate which had been 3·87, 4·11, and 3·36 per 1,000 respectively, in the three decades from 1850–1880, did not exceed 2·42 in the first three years of the current decade. So that, if we are not breeding so freely as in the past, we are much more successful in rearing our brood. Nothing could give sanitarians greater encouragement than to see the success of their efforts in controlling the waste of human life.

Professor Huxley's article in the current number of the *Nineteenth Century* is practically identical with the address which he delivered at the London Hospital in October, which was criticised in these pages, not altogether favourably, at the time. On some points we cordially agree with Prof. Huxley. No one is more convinced than we are as to the necessity for introducing radical changes into the arrangements for primary medical education in the metropolis. Attention was first called to the subject many years ago by Dr. Acland, and since then the competition of the Scotch and provincial schools has been slowly forcing conversion upon many of the metropolitan teachers. The smaller schools will have to amalgamate their chairs in all the primary subjects, their dissecting rooms, and physiological laboratories, if they are to contend successfully with Edinburgh, and the rising schools at Cambridge and Manchester. As Prof. Huxley says, the thing has to be done somehow or other.

Another point in which we agree with Prof. Huxley is, in thinking that the immediate passing of a Bill of a couple of clauses, enforcing a threefold qualification, and giving the Medical Council a more real control over the examinations, would be better than waiting on the pleasure of Parliament for a more complex measure. The profession is heartily sick of medical Bills, and would welcome any settlement that cut the ground from under the corporations that trade upon their licensing privileges. But the first requirement of any settlement is reform of the Medical Council. It would be absurd to trust greater power to the Council so long as members are seated upon it for the express and avowed purpose of safeguarding the vested interests of the corporations.

Professor Huxley is one of the old school of radicals, and has a horror of State intervention. He follows in the footsteps of the Bishop of Peterborough, and would, probably, sooner see a nation poisoned by quacks and chemists than limited in its freedom to get medical advice where it listeth. He thinks the State is only justified in intervening in medical affairs on the ground that it is advisable for it to have some guarantee as to the accuracy of death certificates, the value of medical evidence in courts of law, and the skill of those whom it appoints to its naval, military, and civil appointments. Prof. Huxley has a perfect right to his opinion, but as it happens the State does not accept it, nor will other people.

The State's theory of its function and its influence is both wider and narrower than that which Prof. Huxley would force upon it. The State evidently does not

think it necessary only to warn one of its subjects, as to who are qualified medical practitioners, when he has made up his mind to die, and is likely to be in want of a death-certificate. For it has passed an Act enforcing an examination on the dentist, who has nothing to do with death certificates, law courts, or the public services, and will probably ere long enforce the same on the midwife, who, it is to be hoped, will have equally little to do with them. Again, the State's theory of the efficacy of its intervention is narrower than Prof. Huxley's, for it will not accept registration on the medical register, which itself called into being, as a sufficient guarantee of competence for its own services, but imposes on candidates a further qualifying examination.

The truth is that the State has made up its mind that it is bound to take care of the general public, and assume the duty of pointing out to them whom they may safely trust. Prof. Huxley says, "The state does not profess to tell the public that one man is a qualified engineer, and that another is not so." Quite true. It does better. It sends its representatives to test his work, and will not let its subjects risk their precious lives on the smallest railway bridge till it has been officially declared safe. But the State cannot test the harmlessnes and appropriatness of each prescription, and it has, therefore, made up its mind to give a general guarantee of fitness. And this reading of its conduct is so widely admitted that the principle is more likely to be extended than to be limited. Wherever people are not in themselves competent to judge whether they are in safe hands, the State is bound to give them some protection. And it is the neglect of this duty that has covered the country with unsafe and unsightly buildings, has left secondary education to those who have failed in other walks of life, and has allowed the sewers in every town, London included, to be laid so incompetently that they are in most cases a chain of cesspools. We are not sure that much of the present outcry about the dwellings of the poor would not have been unnecessary if house-owners had been obliged to show a competent knowledge of their business.

It must be admitted that, with all his clearness of perception, Professor Huxley does not invariably take a fair and reasonable view of things. Speaking of counter practice, he incidentally remarks, "Is a man who has a sudden attack of pain in tooth or stomach, not to be permitted to go to the nearest druggist's shop and ask for something that will relieve him! The notion is preposterous." With all possible regard for the weight of Professor Huxley's opinion, it is worth pointing out that in his statement of the case he is begging the question. There is confusion of ideas in his sentence. No one would object to a sick person asking for something," as responsibility then rests on the individual, if, to put it mildly, the treatment goes wrong. But this is not the usual mode of procedure; the chemist is asked for "anything," and thus the treatment comes from one, who, as our author remarks, "has not paid sixpence for his medical training, because he has never had any." A single instance may counteract the spread of erroneous inferences from apparently plausible arguments. A man with chronic kidney disease might apply for relief of gastric pain, and have op um given him "across the counter," a possible consequence being renal convulsions, coma and death. Surely it is not "preposterous" to object to this on grounds of "public policy."

Mr. Christopher Heath has undertaken to edit for Messrs. Smith and Elder a "Dictionary of Practical Surgery," on the lines of Quain's Dictionary of Medicine, which has scored such a satisfactory success. The new dictionary is to be a compendium of the practice of surgery of the present day, readily available for reference by the busy practitioner, and it is hoped that it will be published within two years from now. The articles will be signed, and will be expressed as concisely as possible, historical details being omitted, and questions of pathology only discussed when absolutely necessary. The profession will look forward with great interest to the publication of this work, which is much wanted, and which will no doubt fully come up to the expectations which all who know its editor will have formed of it.

The French Ministry has at last summoned up courage enough to administer a rap on the knuckles to that restless and meddlesome body, the Paris Municipal Council. This body, after voting 17,607,000 frs. as its share of the expense of the Assistance Publique for 1884, added the proviso that this contribution should only be given on the conditions that in at least two of the hospital establishments all the religious associations should be replaced by lay ones before the 1st of April, and that the services of the other hospitals should be so transformed in a similar manner as rapidly as possible during 1884. In a decree of President Grévy, annulling this proviso, it is stated that the administration of the Assistance Publique is placed under the authority of the Minister of the Interior and the Prefect of the Seine; and is entrusted to a director acting under the surveillance of a council. The function of the Municipal Council is limited to giving its advice as regards the accounts and revenues of the Assistance Publique, and to expressing its wishes on questions of a purely local interest; and it cannot interfere with the internal management of the hospitals, without encroaching upon the rights of the Director of Public Assistance. The Government is about to bring in a Bill for the purpose of more exactly defining and limiting the actions of the Council.

Professor Frerichs, who, as we recently mentioned, will shortly celebrate the twenty-fifth anniversary of his connection with the Berlin University, has received from the Russian Government the Grand Cordon of the Stañislaus Order, as a reward for eminent services rendered in the education of Russian students during his lengthened period of teaching in the Universities of Breslau and Berlin.

The Berlin Polyclinic, which was founded towards the end of 1882, on the lines of the well-known institution at Vienna, has had a very successful first year,

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more than two hundred medical men having joined its classes. All the special subjects are taught, and there are two laboratories connected with the institution, for the study of chemistry and histology respectively. A third laboratory, intended for the study of micro-organisms, is to be added. Each course begins on the first of each month, and instruction is given every day, Sundays and holidays excepted.

It is announced that Dr. Theodore Williams is laid up in the Riviera with typhoid fever, and that Mr. J. S. Balfour, Mayor of Croydon and M.P. for Tamworth, has been struck down by Roman fever since his return from a tour in Italy. Last summer one of England's most eminent men of science, Mr. Spottiswoode, succumbed to fever which he contracted in Rome; and, amongst persons less prominently in public view, cases of serious illness followed upon visits to the Continent in search of health or pleasure. Some so-called Health Resorts are, it is to be feared, little better than ambuscades of disease, where invalids may incur maladies more formidable than those from which they seek relief, and where those who accompany them run risks of being themselves invalided. With the decline of pedantic therapeutics, there has arisen an increasing appreciation of the beneficial effects that may be obtained in various degenerative and pre-degenerative states from change of climate, and with the increase in facilities of locomotion, there has come a remarkable increase in the flocks of English people who migrate to the South for the winter months.

It is but reasonable that our health emigrants, as well as our industrial ones, should be well informed as to what they may expect in the place to which they direct their steps, but the former are nearly as apt to be deceived as the latter, by the specious and misleading accounts given by persons who are interested in vaunting the merits and salubrity of their particular districts. The epidemic or contagious diseases must be of an exceedingly pronounced type to obtain recognition in a fashionable health resort, the leaning of every one being towards an optimistic view of the sanitary situation. So powerful is self-interest in perverting judgment, that it would well seem that the local authorities of those places where invalids do congregate should not be subjected to the temptations involved in issuing health reports on their own localities. A roving medical commission of English physicians, visiting during the autumn months the principal winter residences frequented by our countrymen and countrywomen, and issuing reports on their sanitary arrangements and conditions, would perform a most useful work, and exercise a salutary influence. In all health resorts there ought to be not merely registration of deaths but careful and complete registration of sickness.

It is assumed, at law, that every Englishman knows the laws of his native land; and, though the assumption seems a large one, certainly every one who breaks a law is liable to punishment for his misdeed, even though he may have been ignorant that he was offending. In some such cases any punishment, however slight, may seem harsh, for who, except a lawyer, can be expected to be at all fully acquainted with even "common law"? Every professional man, however, may surely be fairly expected to have a good knowledge of the laws that concern his special calling. But, from a letter recently addressed by the Commissioners in Lunacy to the Royal College of Physicians of London, and no doubt to other licensing authorities, it appears that not a few medical men either do not take the trouble to make themselves acquainted with, or most carelessly disregard, legal enactments that seriously concern their professional actions. The attention of the Commissioners had lately been called to several cases in which certificates of lunacy had been given by practitioners who were not on the Medical Register. Now, under sect. 37 of the Medical Act, 1858, no certificate required by any Act of Parliament from any medical practitioner is valid, unless the practitioner signing it, is registered under the Act; and an unregistered medical practitioner makes himself indictable for a misdemeanour if he signs any such certificate, and states therein that he is a "physician, surgeon, or apothecary," as these terms, when employed in an Act of Parliament, "mean a person registered under the Medical Act."

A certificate of lunacy signed by an unregistered practitioner is invalid; and the detention of a patient under it, is unjustifiable at law. Such errors cause expense and great inconvenience, in legalising the further detention of patients by fresh certificates, for which purpose the patients must be temporarily removed from any asylum in which they may have been placed. There can be no justification of any such faulty certificates, and we trust that no medical man will, for his own sake as well as on account of the patients, again commit such a serious error, as to give a legally invalid certificate of lunacy. The Commissioners in Lunacy suggest that it would be very desirable that a written or printed notice of the necessity of registration as a condition for giving certificates be furnished to every new member or licentiate of the Royal College of Physicians. The College will, we believe, carry the suggestion into action; and no doubt other licensing bodies will take like precautions.

The British jury has surpassed itself. A herbalist gives for a serious malady in a patient, whom he has never seen, a remedy, of the serious nature of which he is equally ignorant. The patient swallows it, and immediately dies, and the jury, before whom he was tried, acquit him, with the recommendation to be more cautious in the future in the use of "disputed" drugs. We venture to affirm that if James Wallis had been a licensed medical practitioner, and had prescribed in a similar manner for a patient he had never seen, the jury would have taken a very different view of the case, and no one probably would have criticised them. The logical deduction from their verdict, is that ignorance shooting with its eyes shut may be more safely trusted than the watchful and cautious aim of science.

The question of "educational overpressure" is exciting very widespread attention, and will no doubt be thoroughly discussed in Parliament before many weeks are over. An important meeting in which the doctors took a leading part, was held, with reference to the subject, at Bradford, on Monday. Lord Stanley, of Alderley, who was in the chair, said that "the increasing exigencies of the new Code, and the system of payment by results, converted every teacher, whether he would or no, into an overseer of slaves, bound to extract the utmost amount of labour from the unfortunate children under him. The subjects to be taught were such as to render the tyranny of lessons necessary, and such lessons were detrimental to the growth and future health of the children." Mr. Pridgin Teale proposed as a resolution, "that the system of payment by results, as at present carried out, acts injuriously upon both health and education, and that it ought to be modified, so that a great portion of the Government grant may be given for a general average of the moral, physical, and intellectual well-being of the school." Mr. Stanley Leighton, M.P., seconded the resolution, which was carried, as well as others, including one protesting against compulsory home lessons for children under ten years of age.

Meanwhile it is incumbent on the promoters of this most reasonable agitation to see that their cause is not injured by over-zeal on the part of some of their adherents, or by the production of cases of alleged evil results from over-pressure, which will not bear the jealous scrutiny of the Education Department. A case that is brought forward, and fails, probably does more harm to a cause than one that is indisputably proved helps it. The correspondence published in the *Times* of Friday last will show how carefully a case must be observed and reported if it is to convince Mr. Mundella. The Department still maintains an attitude of scepticism on the subject, and will no doubt be able to throw doubt, and on many of the cases which are likely to be brought before it. But there is, we are assured, no lack of instances in which the serious effects of educational pressure can be proved to demonstration, and it should be the aim of all to bring forward all the definite evidence they are able to collect, while steadily repressing all that will not bear scrutiny. It is to be hoped that there will not be many such lamentable cases as that of the boy who committed suicide at West Bromwich, from the alleged effects of over-work at school. Evil enough can be wrought before the suicide mark is reached.

The history of some of the cases got up by the anti-vaccinationists should warn the critics of the Education Code to beware of similar bogus complaints. One of these cases has recently been investigated at Blackburn, for the Local Government Board, by Dr. Page, who succeeded in eliciting most clearly, that the child, whose death was attributed to vaccination, had died from malnutrition, the result of bad nursing and drugging. It was perfectly free from any lumps or abscesses, and there was no discharge or peculiarity about the places of vaccination, which had been performed six weeks before the child's death, and was proved to have run its normal course. There was no idea of vaccination having anything to do with the child's illness until after its death, and the mother had nothing to say against the operation. Under these circumstances it would be difficult to understand how the charge could have been set on foot, had not Dr. Page thoroughly explained it.

This was how it happened. Mr. Gregory Walker, the undertaker who buried the child, is a member of the Blackburn Anti-vaccination Society, and a great friend of Mr. Thomas Duxbury, its secretary. He alleges that he observed that when he saw the child after death, "the pocks or vaccine marks were actually bursting," an appearance, it may be added, which was witnessed neither by the mother, nor the woman who had had charge of the child, nor indeed by anyone but the undertaker. Mr. Gregory Walker disclosed the horrible sight to his friend, Mr. Thomas Duxbury, who without delay, addressed a letter of complaint to the Blackburn Board of Guardians. The child died on December 4th, and Mr. Duxbury's letter was received on December 8th, and on the same day, an anonymous advertisement appeared in the *Blackburn Times*, headed, "Death after Vaccination," and repeating the very words used in the letter to the Board. We hope that it will be long before the agitators against educational overpressure take to founding their cases on the pathological observations of undertakers.

Hunting casualties seem to be unusually numerous and fatal during the present season. The *West Sussex Gazette* reports an unfortunate instance, in which the "first whip" of Lord Leconfield's hunt has died, as the result of an accident in the hunting field. In this case, a kick from his fallen horse caused what appeared to be an unimportant scalp wound in the temporal region. This shortly healing, the patient, contrary to the advice of his medical attendant, mounted his horse, and rode for some hours in search of a missing hound. He returned aphasic, and convulsions, coma and paralysis terminated the illness, fracture of the inner table of the skull being the case of the fatal result. This is an additional instance, if such were needed, of the advisability of guarded prognosis, and seemingly even extravagant, care in case of scalp wounds produced by sharp or heavy blows.

The *Philadelphia Medical Reporter* calls upon medical editors, members of medical societies, and practitioners in general, to protest against and resent an "insult to the profession" offered by the Red Star Line Atlantic Steamship Company, sailing under the Belgian flag, but mainly owned and officered by Americans. The insult in question consists in an order issued by the company, that in future the ship-surgeons shall mess at the second-class table, and rank in other respects only as second-class passengers, whereas in all other lines they are assigned quarters and mess with the first-class. Several of the surgeons of the company have resigned, and others are only waiting in hopes that the remonstrances which are being adopted by members of the profession

may induce the company to withdraw its decree. As the Red Star Line, as yet, does not even deign to give any reply to these, the *Reporter* calls upon every practitioner to refrain from selecting or recommending this line for travelling, which offers no special advantages over all the others which treat their surgeons with due respect. It is pleasant to notice this manifestation of sympathy, and we can only wish it success.

One of our correspondents sends us the following :—"I crave your permission to say a few words on the Home Hospitals Association for Paying Patients, to the successful working of which you made allusion last week. The success of Fitzroy House *as a surgical home* is beyond all dispute ; as one who has treated patients within its walls, I can bear testimony to its unequalled resources, and to the excellence of its internal arrangements ; the latter appearing to me to depend largely on the special qualifications for her office which distinguish the present lady superintendent. My particular object in addressing you is neither to find fault with, nor to praise, the working of Fitzroy House, but to ask whether Fitzroy House is fulfilling the purposes for which it was founded. I turn to Mr. Burdett's book on "Pay Hospitals,"[1] where, in chapter IX., the question is dealt with. Your space is valuable, or I should ask you to allow me to transcribe several pages from it. I must content myself by requesting you, Sir, and those of your readers who are interested in the matter, to study this chapter carefully over, and then say whether Fitzroy House is a success. As I understand the chapter, the home hospital was established for the poorer middle classes—young milliners, clerks of various kinds, teachers, press writers, students, and the like—for a class of persons indeed, independent but poor, whose home surroundings were prejudicial to the recovery of the health lost through over-work in overcrowded rooms, late hours, and other hardships incidental to London life, and the general struggle for existence which now so besets us."

"I ask how many of this class have been admitted and treated ? What has Fitzroy House done to mitigate the evils which Mr. Burdett so graphically describes ? What has it done in the matter of overcrowded rooms ? How many of the '40 young women engaged in a cellar beneath a shop in Tottenham-court-road, which was lighted by gas, and where the air space allowed to each person was but 50 cubic feet' (*op. cit.* p. 105), or their successors have been treated in the *Home ?* Or let me ask what has the Association done for the class of persons represented by 'the old public school and university man with an income of 200*l.* derived from his profession.' (*Op. cit.* p. 112.) The smallest charge at Fitzroy House is 3*l.* 3*s.* per week, and I believe I am right in saying there are only two rooms for which this minimum charge is made. The association would do well to publish the rank or occupation of every person treated in their wards, together with the fee paid to the attendant surgeon. The public would then be able to judge for themselves how far the professed objects of the association are carried out in practice. If the convalescent home is to be worked on the same system, it will be honest, even if not judicious, to say so. I do not gather from your remarks, whether convalescents from infectious diseases are to be housed in the same institution as those who are recovering from non-infectious disease."

The first part of an epoch-making undertaking—the historical English Dictionary, edited by Dr. James A. H. Murray—has just been issued from the Clarendon Press ; the editor has been assisted by Dr. Pye-Smith, in his treatment of medical and biological terms ; by Dr. Watts and Professor Roscoe, in reference to chemical words; while he has also received assistance from Mr. Henry Power, who, as joint editor of the Sydenham Society's Lexicon, may be considered to be one of our best authorities on medical terminology.

Armand Leslie, who, sword in hand, was cut down by the Arabs in the massacre of Baker Pacha's troops, on Monday, was well-known as a red-cross surgeon. He was principal medical officer of the National Aid Societies' Ambulance in the Russo-Turkish war, and received the Osmanie and Medjidie Orders for his services ; and he did such good service in the recent epidemic of cholera in Egypt, that a permanent post was offered him by the Egyptian Government and accepted. Leslie was a Middlesex Hospital man, but had also studied in Paris. He took his diploma in 1868. He was one of those adventurous spirits who fret under the routine of common practice, and love nothing better than to be in the midst of danger and excitement—a modern red-cross knight.

Under the auspices of the American Association of the Red Cross, the first number of the International Review of Medical and Surgical Technics has lately made its appearance. It is a periodical devoted chiefly to the description, illustration and discussion of instruments, appliances and methods of operations that have been recently devised or published. It will also take into consideration the manufacture, use, care and repair of instruments and new methods for prepairing and administering drugs. The reason for its appearance is that "the busy practitioner has neither the time nor the opportunity to read, much less to digest, the vast amount of periodical literature pouring in upon him !" The present number contains a great deal of information, both useful and interesting, and is well got up in all respects.

DR. HUNTER'S REPORTS ON THE CHOLERA EPIDEMIC IN EGYPT.

In our last week's issue we mentioned that Surgeon-General Hunter's cholera report, or rather reports, for there are two, had just come into our hands. The first is dated Cairo, August 19, 1883; and the second, London, December 11, 1883. These reports, with appendices, cover 71 pages, and form the last of three volumes issued simultaneously by the Foreign Office. The first two of the series consist of the

1 "Pay Hospitals and Paying Wards throughout the World." By H. C. Burdett. J. and A. Churchill. 1879.

correspondence which has taken place respecting the origin and progress of the epidemic, and concerning matters more or less directly related to it. The information embodied in these two volumes, formed the basis for the report of the English delegate to Egypt, and, after a careful perusal of them, we cannot refrain from congratulating Dr. Hunter on having been able to reduce such a chaotic mass of facts and fancies into something like order, within so short a time. In reading the correspondence, one is struck with the circumstance that nearly every writer—whether professional or lay—has formed certain notions of his own as to the ætiology of the disease, but the communication which seemed to us to be the most striking and instructive in the two first volumes of the series, is one by Drs. Chaffey Bey and Salvatore Ferrari. And what specially induces us to single out this correspondence, is the circumstance that the facts elicited by the reporters in the course of their enquiry as to the origin of the outbreak at Damietta compelled them to write, and that with considerable ability and force, in direct opposition to their own preconceived ideas on the subject.

They write : "Was the cholera, which appeared on the 22nd June, 1883, at Damietta, imported thither from some country where it already existed in an endemic or epidemic form? We recently watched three consecutive outbreaks of epidemic cholera at Mecca—those namely of 1878, 1881, 1882—and showed well-nigh material proof that the malady was each time imported into Hedjaz; we were, therefore, till now great partisans of the theory of importation, and would not have hesitated for a moment to have pronounced in favour of importation in the present case also, had the facts, which we searched for most carefully in order to arrive at this conclusion, appeared in any way reliable." The theory which was stated by Dr. Flood, a Norwegian, and which is still maintained in some quarters, that the disease was brought to Damietta from Port Said on the 18th of June by a native stoker of the steamer *Timor* from Bombay, was thoroughly enquired into by these gentlemen, and shown to be wholly untenable; and it now appears that the man had left Port Said on the 18th of the Mohammedan month *Shabân*, which Dr. Flood had mistaken for 18th of June. Now, Shabân 18th corresponds to June 23rd, and the stoker was proved to have arrived at Damietta on the 24th June, or two days after several well-recognised *deaths* from cholera had been recorded at that place. After having thus disposed of this and of several other theories as to the probable origin of the disease, Drs. Chaffey Bey and Ferrari write : "Seeing these facts, we now find it positively impossible to pronounce in favour of the importation of the cholera of this year into Damietta."

This is likewise the conslusion which Dr. Hunter has arrived at, not only as regards Damietta, but also as regards Egypt generally. It is very evident that it has only been with the greatest difficulty that he has succeeded in collecting even general information regarding the history of cholera in the country, and as to statistical data their extent and value may be inferred from the following remarks :—"It is quite rare and exceptional for persons suffering from disease to be seen during life by a medical man. The village barber is the registrar, and according to the statements made to him by the relatives or friends of the deceased, he enters on the register what he considers to be the cause of death, and then grants a permit for burial. It is, however, abundantly evident that Dr. Hunter has succeeded in unearthing facts which prove that cases of undoubted cholera have been observed in Egypt every year during the last twenty years or more." Dr. Hunter, further, "feels little doubt that examples of cholera are not of infrequent occurrence in many of the cities and towns of Europe, not excluding the British Isles. In certain parts of the Russian Empire cholera is affirmed to be endemic." These remarks call to mind observations which were made a few years ago by Lewis and Cunningham in their report on *Cholera in Relation to Certain Physical Phenomena*, excerpts from which appeared in the *Practitioner* for April and May, 1878. Referring to certain isolated cases of the disease as having occurred within their own knowledge, they write : "Somewhat similar cases habitually occur in every city in India, as well as every summer in all the larger cities of Europe. These, however, excite no special comment, unless an epidemic breaks out in any part of the country; on this the previously ignored cases are carefully collated and described as the starting-points of the disease; it is not the custom to look upon such cases *then* as due to a localised generation of the disease."

Dr. Hunter reviews at some length the evidence which has been adduced in favour of the germ theory of the causation of cholera, and, after pointing out that the negative results obtained in this direction by the French Mission to Egypt were wholly confirmatory of those arrived at in India by Lewis and Cunningham, he expresses his belief, as we mentioned last week, that Koch's cholera-bacilli are the result of decomposition. The question of the causal relation of organisms of this character to disease is an extremely intricate one, and our readers will, long ago, have observed that whenever it has seriously come before us, we have felt it our duty to deal with it with the greatest caution; and, as regards cholera, we feel that, if possible, we ought to emphasise our caution. So far as experiments with animals are concerned, all the attempts hitherto made to induce unequivocal cholera symptoms in them by means of choleraic material, no matter how introduced into their system, have signally failed. The most plausible approach to success was obtained by Professor Thiersch, when he fed mice with fragments of blotting-paper which had been soaked in choleraic dejecta. These experiments materially influenced the decisions of the Vienna Cholera Conference, and carried much weight for some years, until, in fact, it was demonstrated by Professor Ranke that symptoms, similar to those described by Thiersch, might be induced in such sensitive little animals as mice, when they were fed with even unsoiled filtering paper. This is a lesson which the profession should not lightly forget.

In the absence, therefore, of thoroughly substantiated evidence of the existence of a specific cholera-germ Dr. Hunter proceeds "to draw attention to certain broad facts which confirm the results hitherto arrived at by

scientific investigation, and tend to the conclusion that in cholera we have to deal with a non-contagious disease." He cites his own experience and the experience of many others in support of this view, and directs attention to the fact that statistics regarding 8,000 attendants on cholera cases which had been collected in India, went to show that these persons were not more liable to the disease than others living in the same locality. As regards the circumstance that during the recent epidemic in Egypt it had been observed that whilst none of the sisters who had nursed our soldiers contracted the disease, nine per cent. of the men of the Hospital Corps did, he remarks :—"The explanation of such a marked disparity in the number of attacks, not only as between the sisters and men of the Army Hospital Corps, but also as regards the number of men attacked in other hospitals, is to be found in *fear*, one of the most potent factors in the causation of cholera in individuals."

With reference to the geographical distribution of the epidemic, Dr. Hunter states that it did not, as generally stated, take a southerly course down the Damietta branch of the Nile, and then to Cairo, and then proceed in a northerly direction up to Alexandria, "but rather an erratic course, following no particular route either by water or by rail, and appearing in distant places on one and the same day," thus tending to the conclusion that the production and diffusion of the disease were the result of some general influence, and independent of any traffic routes. Considerable prominence is given in the report to various unusual atmospheric phenomena which were observed in Egypt as they have often been in India in connection with outbreaks of cholera, though it has not as yet been found practicable to give a sufficiently expressive name to these complex meteorological conditions. Experience in India has, however, shown that some men appear to be so sensitive to these as often to be able to recognise them even before a single case of the disease has been observed in the locality ; and in Egypt Dr. Hunter was informed by Surgeon Prendergast that some of the men at Ramleh, who had served in India, had "remarked that there was *Cholera in the air*, and it so happened that at 10 a.m. of the next day the first case was reported." Taking everything into consideration Dr. Hunter is of opinion that the disease is due "to a combination of certain conditions of a cosmo-telluric character of air, soil, and water, filth, being a powerful factor, as in Egypt."

The epidemics of 1865 and of 1883, presented many points in common, both as to season — June to August in 1865, and June to September (in Lower Egypt) in 1883—and as to locality, the different places being attacked about the same time in each epidemic ; but "the disease spread with rather less rapidity during the recent epidemic than it did in 1865, although facilities for travel had much increased. The outbreaks at each period corresponded to a Nile about its minimum level, and their cessation to a Nile advancing towards its maximum, or to what may be called the dry and wet season respectively.

We have given our readers an insight into Dr. Hunter's reports, which will suffice to enable them to see that he is decidedly of opinion that the disease was of local origin in Egypt, and his reference to the isolated cases which are registered periodically in most of the large cities of Europe, also shows that he is of opinion that it may be generated from local causes, in Europe likewise, under certain conditions. His advice, consequently, is not to trouble ourselves with attempting to frame regulations for keeping out an enemy, which, he believes, has never been demonstrated to consist of a transportible entity, but to make the most strenuous efforts to secure "cleanliness in every form and shape." The profession is greatly indebted to Dr. Hunter for the care and trouble which he has taken in the preparation of these important and able documents. That the views advanced are opposed to those which are, perhaps, more generally entertained, in no way detracts from the merit of the reports. On the contrary, the mere fact that he has the boldness to steer against the current is of itself an indication that he must have given serious thought to what he was writing about. We must refer such of our readers as are desirous for more information in connection with the subject to the work itself, which, though an official document, may be obtained for eighteenpence through any bookseller.

THE HOSPITALS' ASSOCIATION.

In these days of co-operation it is not wonderful that a desire for the mutual help which co-operation affords should begin to manifest itself among some few of the more active of hospital managers. That there are great difficulties to overcome, and that the task of hospital management is a growing one, will be readily acknowledged. On the other hand, it is widely felt that there is need of more careful organisation, and room for much improvement in many directions. That such an association may prove helpful, all will concede ; but if it is to do good work, it must be thoroughly representative in its constitution, and the objects in view must be clearly formulated. Under these circumstances, we can only regret that so few assembled at the Mansion House last week, when the Hospitals' Association was formally inaugurated. It struck us also as not a little strange that the four principal speakers in support of the association should have taken such different, nay, even such antagonistic, views as to the work and objects of the proposed association. The only point on which there appeared to be unanimity was as to the necessity of enforcing payment from hospital patients, seeking, if necessary, Parliamentary power to do so. Major Ross' thoughts ran on Parliamentary Bills and their supervision while passing. Sir Fowell Buxton wanted to see provident dispensaries established everywhere, and to control the location of hospitals about London. Sir Rutherford Alcock was scandalised at the thought that a quarter of the entire population went to the hospitals for gratuitous advice ; he pinned his hopes of reform on obtaining a Royal Commission to enquire into the subject, and hinted at the establishment of some central controlling authority. Mr. Timothy Holmes thought we should keep the management of the hospitals in our own hands. He regretted the gratuitous advice given at hospitals, because it prevented the establishment of provident dispensaries.

We have conceded that such an association is a desirable undertaking; but we incline to think that its inauguration has been somewhat premature. Major Ross explained that St. Bartholomew's, St. Thomas's, and Guy's Hospital, had all kept aloof until the objects of the association had been clearly defined. Would it not have been wiser to have formulated these objects and secured the co-operation of such powerful corporations before bringing the question forward? The speakers were selected, the resolutions cut and dried, and no important changes were anticipated in them; indeed, there was rather a tendency to smother discussion, and unduly hasten through the formalities without, at all events, any adverse criticism. Mr. Hardy wished to allow not only those who are "connected" with hospitals to be members of the association, but others who might be *interested* in their management; this, however, was objected to by a member of the provisional committee. In other words, the association is to be a close one—to consist only of representative members of hospital corporations. For what purpose, then, was the general public invited to the Mansion House? It would have been in all respects better to have had a private gathering, those only to be admitted who were eligible for membership. Of even greater importance would have been the more accurate formulation of the reasons which had led up to the proposed association in lieu of the generalities with which the meeting was favoured. The very limited attendance, both of medical and lay authorities of the metropolitan hospitals, we cannot but think, is a measure of the favour which the scheme meets with in its present imperfect condition.

Dr. Glover was not far wrong when he stated that the chief object which the association appeared to have in view was that of criticising the present system of working hospitals. And such criticism, we fear with him, would tend to produce greater evils than those it pretends to remedy, and would increase the difficulties, already great enough, which managers have to encounter in their often thankless task. The promoters of the scheme seem to have forgotten that they are dealing with private charities, and that those who maintain a hospital will conduct it on any plan they like best. They set out also with what appear to be foregone conclusions, and we cannot wonder that the movement is not at present very widely supported, or that the managing authorities of our largest charities hold aloof. This question of payment by out-patients is not so one-sided, or so simple, as Mr. Holmes and Sir R. Alcock seem to think. Several efforts have been made at the London Hospital, for instance, to detect impostures, and the net result, after much deliberation, is that no change is at present thought desirable.

Among the four-and-a-half millions who exist in and around London, there is a mass of over-worked, under-fed persons in the East of London, who, when sick or injured, have no sort of refuge but the hospitals, and whose means of payment, not for medicines only, but for the maintenance of the families dependent on them, cease absolutely the moment they leave off work. It may be that at St. George's Hospital, with its more refined surroundings, some patients who apply for gratuitous relief could really afford to pay. Mr. Holmes must doubtless have good ground for his very warm advocacy of the payment system. But this is a matter for the St. George's Board of Management, and not for the Hospitals Association. Each hospital must work out its own system, and accommodate itself to the needs of the neighbourhood in which it is situated. Before bringing their affairs before such an association, let hospital managers take care that every prominent abuse is thoroughly sifted and righted. They appear to think that waste and mismanagement do exist; what more could an association tell them? The knowledge that abuses exist is the chief point, for to be warned is to be armed.

It was interesting to hear that the Royal Commission, which had been asked for, had been refused not only by the present Home Secretary, but by the Home Secretaries of successive governments. We think that they acted wisely; for a case has not yet been made out. This country, and especially this metropolis, occupy an unique position as regards hospitals. The state does not provide a single institution of the kind; and if the present institutions—which exist on private benevolence—were to shut their doors, there would be no provision for the vast number of accidents, and cases of disease, to which such an enormous population as that of London is liable. The government may well hesitate before interfering with institutions which relieve them of such gigantic responsibilities, seeing, on the whole, how well they discharge their self-imposed duties. There are many ways in which the present management of our hospitals may be improved. In the first place, the medical staff must be allowed and expected to take part in the government of their hospitals, in which, at present, they are in most cases excluded from all participation, and, as a consequence, about which they are indifferent. The need of such a reform as this is palpable, and requires no association to enforce it. In the next place, do the Boards, as at present constituted, really consist of working members; or are they merely names, leaving to one or two of their number, or to the secretary, the whole or chief responsibility? Let all those who do not take an active part in the practical details of the management retire, and let the vacancies be filled up by others who will do so. Finally, before venturing to discuss questions at large and in public, let the present managers of hospitals carry out such reforms in their own institutions as are necessary, according to their own showing; where there is waste, or inefficiency, let it be suppressed; where there is abuse, let it be shown up. It will matter little, then, whether the Association be formed or not. The promoters of the Hospitals' Association have started with strongly preconceived notions; they appear to make no secret that reform and radical changes in the present system are among their more immediate aims; unfortunately, though they are all associated with hospitals, we are not aware that they have yet done anything to raise their respective institutions above the level of the ordinary mediocrity with which they are so dissatisfied. Until they accomplish something in this direction, we fear the association will fail to attract much attention.

MODERN OPERATIONS FOR CATARACT.

In his Lettsomian lectures, the last of which we publish to-day, Mr. Brudenell Carter utters a vigorous protest against the old system of invariably waiting for the ripeness of a cataract before attempting its removal, and gives a lucid description of the more modern methods of dealing with mature and immature cataracts. He draws for us a touching picture of the condition of the patient formerly condemned to wait for years before undergoing an operation—the most favourable result of which was often but to "enable the sufferer to see his or her pathway to the grave." Fortunately, however, the object now desired is maturity of the *cataract*, not necessarily of the patient; and this fact, among others, must be some excuse for those who are still old-fashioned enough to advise waiting. In the days of the flap-extraction, as Mr. Carter points out, maturity was an essential for success; but now it is so no longer. It must be understood, however, that the lecturer still prefers a ripe cataract for operation, "but the practical question is whether the difference between this, and something which falls short of it, is sufficiently marked to be, in the majority of cases, worth waiting for?" It is obvious that this difference will, *cæteris paribus*, be more marked the more the mature condition is fallen short of, and that there must be a stage of immaturity at which it would be unjustifiable to interfere. But when the patient is unable, even with the artificially dilated pupil, to follow his or her usual occupation, and when courage and health both begin to fail, we may often endeavour to restore sight without longer delay. In such a condition, Mr. Carter generally does a preliminary iridectomy, after the manner of Mooren, and extracts the lens a few weeks later. The iridectomy alone sometimes hastens the maturation of the cataract, while the author occasionally produces this effect by dividing the anterior capsule with a fine needle a day or two before the extraction. He lays down excellent rules for our guidance in reference to the kind of immature cataract which it is most safe to remove, and the sort of section best adapted for the different kinds. But, in our experience, the association of conditions demanding early interference is by no means common. Not infrequently the one cataract is so much in advance of the other, that the better eye still fits the patient for work when the worse is ripe for extraction; a great deal, in every such case, necessarily depending on the nature of the occupation. Many patients are not dependent on their own exertions for their living; and many of those who are, have friends ready to assist them. Again, while some are dissatisfied and suffer in consequence, many are contented, hopeful in the knowledge that the cause of their blindness is removable, and often even anxious that nothing should be done until it is "quite ready."

In his first lecture, Mr. Carter gives a brief history of the different operations that have been practised for the relief of cataract. Couching, the flap-operation of Daviel, the scoop extraction of Waldau, the modified linear extraction (with iridectomy) of Von Graefe, and Pagenstecher's operation of removing the lens in its capsule, are all passed in review. He has also thought it necessary to notice a practically extinct method of extraction, the disadvantages of which are obvious, introduced by a metropolitan ophthalmic surgeon of repute. However deserving of hostile criticism this operation may be, we still consider it undignified in a Lettsomian lecturer—unworthy of himself, of his lectureship, and of his audience—to resort to a comparison between it and what he calls the "marital method," where "the patients were mostly of the female sex, ... in whom the lens had been expelled from the eye by the smart application to the margin of the orbit of the clenched fist of a male companion."

In the case of a mature cataract, Mr. Carter employs the usual modified linear extraction of Von Graefe, but makes his iridectomy rather smaller than is customary. He is very particular in removing all cortical substance, even introducing a small spoon or scoop for this purpose when necessary. Before the operation of iridectomy, whether preliminary or not, our author always uses eserine. We are astonished to find him assert, that "at the present day the instillation of eserine, as a preliminary to iridectomy, has become almost universal." This is far from being the case in this country, at all events. The arguments adduced for its employment are three in number, viz.:—1st, by contracting the pupil, the iris is drawn out of the angles of the operation wound. Now, immediately on the anterior chamber being evacuated, the iris, whether previously under the influence of atropine or eserine, assumes the position of medium dilatation, and the drug is unable to re-assert itself until the aqueous is retained. This retention may exceptionally occur in about twelve hours after the operation; but even by this time the action of eserine will have ceased altogether, or at least, have become quite inefficient for the task of disengaging the iris from its already formed adhesions. Again, a preliminary iridectomy, if performed according to Mr. Carter's method, ought to have little or no tendency to leave entanglements of the iris. 2nd. When the lens is swollen during the development of cataract, so as to narrow the anterior chamber, the contracted iris coming between it and the knife protects the lens from being accidentally injured. Surely, however, the delicate vascular iris is not the sort of cushion we would desire to interpose between the lens and a sharp cutting instrument. 3rd. When the intra-ocular tension is somewhat heightened, eserine relieves the congestion of the iris, and often thus prevents excessive bleeding into the anterior chamber during the operation. Now, since eserine is known normally to *increase* the vascularity of the iris, it is hardly likely that its employment can even here materially diminish the flow of blood from the cut surfaces of this structure; while in all other cases its effect must be hurtful in this respect. Indeed, we are inclined to think that its constant use may account in some measure for the particular stress laid by Mr. Carter on bleeding into the anterior chamber as a complication during the operation.

In his last lecture we have a valuable account of the author's experience in regard to the use of anæsthetics, and of the complications liable to occur during and after operations. We note that he invariably prefers having the patient anæsthetised, and recommends

the usual alcohol, chloroform, and ether mixture for this purpose. His after-treatment does not materially differ from that usually adopted. On the whole, it seems to us that the tendency of Mr. Carter's teaching in these lectures is to encourage somewhat unduly the extraction of immature cataracts, and we can only trust that his advocacy of this principle may not lead to its too free adoption.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 5TH, 1884.

J. W. HULKE, F.R.S., President, in the Chair.

Sporadic Cretinism.

Mr. BOWLBY showed four specimens of this affection.—1. A very large male born at full term, lived one hour. Head large, well shaped, cartilaginous base normal. Back of neck occupied by masses of subcutaneous fat. Skin œdematous, semi-translucent. Thyroid gland absent. Upper and lower extremities very short, epiphyses large in proportion to shafts, and readily separated from diaphyses. Under the periosteum of many of the long bones was a soft white material of undetermined nature; the ribs presented an oblique fissure at their external ends. 2. A fœtus born at term, body of normal size. Head natural shape, cartilaginous base of skull natural. Extremities extremely shortened, epiphyses being normal and the shafts exceedingly short, no enlargement at epiphyseal lines, and no attempt at ossification in any of the epiphyses. Ribs short, anterior extremities enlarged and nodular. 3. Fœtus measuring twelve inches. Head broadly pyriform, enlarged in transverse and vertical diameters. Frontal, parietal, and occipital bones represented by a single continuous case of bone widely open in front and above, other cranial bones depressed, all light, dry, and porous. Ribs very thick. Extremities stunted, all the bones, including the phalanges, thick, heavy, and more or less bowed; epiphyses large in proportion to shafts; no swelling at epiphyseal lines. 4. Head natural, palate cleft. Forearms very short and curved; lower extremities also very short and somewhat curved; excess of digits on hands and feet.

The microscopical appearances in all the cases were very similar. In the epiphyseal cartilages the cells were not arranged in rows at the junction of the epiphysis with the shaft; there was no evidence of ossification at this point. Between the bony part of the shaft and the cartilage of the epiphysis was a well-marked layer of connective tissue continuous with the periosteum. This condition was present in the bones examined. Mr. Bowlby's specimens being all from a museum, he was unable to give any clinical details. Briefly reviewing his cases and comparing them with those recorded by Dr. Hilton Fagge, Dr. Barlow, Mr. Shattock, and others, he noted that in none of his cases was there any premature synostosis of the basilar process with the sphenoid bone. In his first case the thyroid gland was absent, and there was a great excess of adipose tissue at the back of the neck, though there were no definite fatty tumours. The other cases afforded no evidence on either of these points. The chief interest in his specimens, however, lay in the extreme shortness of the bones of the extremities, and this he attributed to the ingrowth of connective tissue at the junction of the epiphysis with the diaphysis. As to the proximate cause of this, after referring to the admitted resemblance between cretinism and myxœdema, he suggested that in sporadic cretinism, and perhaps also in the endemic form, there might be a tendency in the connective tissue of the periosteum to over-growth, and proceeded to point out that it had been noticed that after the removal of the thyroid gland in young people growth had been arrested, and a condition akin to myxœdema produced. The curvature of the bones he attributed to the very early stage at which the interference with growth took place; the earlier this commenced the more curved the bones, and vice versâ.

Fœtal Rickets (? Cretinism).

Dr. BARLOW exhibited a specimen very closely resembling one that he had brought forward during the debate on Rickets. The limbs were stunted, their chief feature being the defective row formation in the primordial cartilage, in consequence of which the earthy salts deposited in the process of ossification did not present their usual arrangement. The growth of the bones was limited as to their length, but those formed from membrane (*e. g.*, clavicle) were well developed. The epiphyses of the long bones were only relatively large, there was no proliferation of cartilage along the line of ossification as in ordinary rickets. Along the upper line of ossification was a layer of fibrous tissue, arising from the periosteum. The ribs were not beaded as in rickets, but there was an investing sheath of bone round the end of the costal cartilage. There was premature synostosis of the basi-occipital, basisphenoid and præsphenoid, the cartilage forming part of the occipital bone was stunted, whilst the membrane-formed part was normal. The cerebellar fossæ hardly existed, and the cerebellum was very ill-developed, and pushed forwards and upwards. At the base of the brain the under-surface of the temporo-sphenoidal and occipital lobes and uncinate convolution showed a deep fissure which passed upwards and forwards to near the middle of the temporo-sphenoidal lobe terminating near the posterior limb of the fissure of Sylvius. The fissure was symmetrical on the two sides, and was probably due, in part, at any rate, to the pushing upwards and forwards of the cerebellum already alluded to. As to the other viscera, the heart showed funnel-shaped aortic and pulmonary orifices, a patent foramen ovale, an imperfect septum ventriculorum and no mitral orifice. The thyroid gland was normal, there were no separate fat masses in the neck, but much heaping up of subcutaneous fat throughout the body. Without denying the existence of fœtal rickets, he (Dr. Barlow) was anxious to insist on the distinction between this group of diseases and true rickets. It was a vice of conformation, not a change of nutrition that was the cause in the disease under consideration. He referred to a case in which there had been premature union of the frontal and parietal bones with the occipital bone, and Virchow had alluded to similar cases. Comparing his cases with those recorded by Dr. Fagge, he noted that the dwarfing in the latter was not so prominent a feature as in his own cases. The absence of the thyroid was not an essential feature of the disease; in the specimen he brought forward that evening, the thyroid was normal, and in one of Dr. Fagge's cases, after death a small goitre was discovered, while during life the thyroid had been supposed to be absent. The fat masses were not necessarily always present. In conclusion, Dr. Barlow pointed out the necessity for further microscopical examination of the ends of the long bones.

Mr. J. B. SUTTON, said that no history could be obtained of the specimen he brought before them. One half of the body had been dissected to display the skeleton, the remaining half had been left to show the external characters of the

fœtus. Concerning the exterior, the noteworthy points were its extraordinary size, the very large head, and the thick, but short, stunted limbs. It was a female. The fœtus measured from the crown of the head to the sole of the foot, 20 inches. Of this 6½ inches represented the head, 9 inches the trunk from foramen magnum to tip of coccyx, and only 4½ inches the legs. In an ordinary fœtus, he said, at birth the head should measure one-fourth of the whole body, whereas in this specimen the head equalled more than one-third the body. The arms should reach to near the middle of the thigh, but in his specimen they were on a level with the umbilicus. The skin of the limbs was wrinkled in transverse folds, and there was an excessive quantity of fat in the subcutaneous tissue all over the limbs, trunk and face. The only visceral lesion noted, was enlargement of the thyroid gland to twice its usual size. The skull presented a curious appearance. Its base was very short, due to synostosis of the basilar suture. The foramen magnum was very narrow, and in shape elliptical, with its major axis transverse to the squamous portion of the pelvous bone, the occipital bulged backward at the seat of the torcular herophili, so that it presented, on the inner aspect, a deep cup-shaped depression, where the four centres for this portion of the occipital bone become confluent. The floor of the cranium was divided into shallow fossæ by strong ribs of dense bone. All that portion of the skull which arose in membrane was enormously exaggerated, the bones being extremely thin and deficient, the chief part of the vertex being formed of stout membrane as in hydrocephalic infants. The ventricles of the brain were greatly distended with fluid. The ribs were broad, the intercostal spaces narrow, so that the capacity of the thorax was small, the beading of the rib shafts at their junction with the costal cartilages was obvious. The clavicle was rather long, but not otherwise deformed. The scapulæ were thick and stunted, the bones of the arm presented short thick shafts, with very large terminal cartilages. The ossa innominata were thick and stunted, and the bones of the leg presented similar characters to those in the upper limb. There was no earthy spot for the condyles of the femur. In sections carried through the junctions of the shafts of the long bones, with their terminal cartilages, the following changes were seen. 1. There was absence of the familiar rows of cells so constantly seen where hyaline cartilage was undergoing conversion into bone. 2. Between the bone shaft and the cartilage cup, a line of fibrous tissue was seen, continuous with the periosteum. The condition of the skeleton might be summed up thus:—There was an overgrowth of membrane bone, with lack of cartilage metamorphosis. It seemed as though membrane and cartilage, instead of harmoniously working together to form bone, had broken alliance with each other, and pursued their own course to each other's detriment.

The PRESIDENT spoke of the great interest of the subject.

Dr. GOODHART showed photographs of a cretinous boy, eleven years old, showing marked fatty masses in the neck.

Dr. MAHOMED alluded to three cases under his own care. A girl, aged fourteen, with large square head, very stunted limbs, but intellect good. The others were two members of the same family, intelligent, but with stunned limbs and overgrowth of the connective tissue.

Fibroid Disease of the Heart.

Dr. HALE WHITE read a paper in which he reminded the Society that it was just ten years since Dr. Hilton Fagge read his exhaustive paper on this subject. During this period, nine cases had occurred at Guy's, in which the only cause for sudden death was this condition of heart. Dr. Hale White related a typical case in which a man fell down suddenly in the Borough, on being brought to Guy's, the only cause for death was fibroid disease of the heart, which was probably syphilitic, as other evidences of this disease were present. Sections of the heart from this case were shown under the microscope. The great importance of fibroid disease of the heart, as a cause for unexpected sudden death, was pointed out, and, inasmuch as nine cases had happened at Guy's Hospital, it might be taken that Dr. Fagge's prophecy, that this would be found to be a common cause of sudden death was proved. With regard to syphilis, this was present in four out of the nine cases so that we must now look upon sudden death as one of the effects of this disease. In the remaining five cases there was nothing to show what was the cause of the fibroid disease, nor were there symptoms to point to it during life, in fact, in most cases, it was definitely stated that at the time of death, the patients were in the best of health.

Carcinoma of Œsophagus.

Mr. SAMUEL BENTON shewed this specimen, taken from a man of intemperate habits, who had a stricture of œsophagus for fourteen months before death There was no thirst, and he was able to take sufficient nourishment, so that gastrostomy was unnecessary.

Mr. BUTLIN said this was a case of hard spheroidal celled carcinoma, not epithelioma, wall of œsophagus infiltrated, there was less ulceration than in epithelioma, and it ran a quicker course than ordinary cancer. There were secondary nodules in the pericardium.

Mr. CLEMENT LUCAS asked what had been the cause of death?

Mr. BOWLBY referred to a case where there was a hard cancer of the œsophagus, with no glandular enlargement, and no secondary growths; the patient died of septic poisoning, after gastrostomy had been performed.

Mr. BUTLIN stated that the patient had died from inanition.

Growth from Bladder.

Sir HENRY THOMPSON observed that these tumours were much more common than had been formerly thought. This one was the sixteenth case he had operated on. The patient was 44 years old, and had had hæmaturia for six years in 1881. The operation was performed last autumn. Ten or eleven of the growths were villous. The symptoms were slow and gradual, often with distinct onset from local irritation. In most, the growth was homologous with the tissues of the bladder. Two of them were cases of epithelioma, the others were of a malignant nature. He did not operate where there was infiltration of the bladder. There had been no recurrence in his two earliest cases, operated upon three, and two and a half years ago. In several there had been recurrence, and he had operated a second time in some of them.

Mr. BUTLIN had examined a tumour removed from the bladder, consisting of a fibrous base, covered with epithelium. In this case the growths recurred, and there were a number of sessile vascular growths; they were found to be round-celled sarcomata, he could not be certain that these were recurrences of the original growth.

The PRESIDENT said he had had three cases in the hospital recently: one of them was an epithelioma, and infiltrated the bladder; the second was a papilloma, too extensive to be removed; the third also of papilloma, and was not altogether within reach, and therefore was not altogether removed.

Sacculated Calculus in the Bladder.

Sir HENRY THOMPSON mentioned the case of a woman, æt. 42, on exploring the bladder with the finger, there was a firm smooth growth springing from the base of the bladder, almost pedunculated; on grasping it with forceps, he discovered a calculus, which he then enucleated. Sacculated

calculus was decidedly rare, but he had met with three other cases during life, and had removed them.

Mr. BLACK had seen a case where a calculus, impacted in the ureter, had simulated a sacculated calculus.

Mr. THOMAS SMITH alluded to a case he had exhibited to the members of the Society, where each ureter was blocked by a stone, and prolapsed into the bladder.

Mr. CLEMENT LUCAS mentioned cases similar to these, that had already been published.

Sir HENRY THOMPSON thought there was no room for confusion between a sacculated calculus and an impacted calculus in the ureter.

Mr. THOMAS SMITH said, that in his patient there had been no symptoms of suppression of urine, and there was no hydronephrosis.

Pigmentary Degeneration of Tongue.

Mr. G. STOKES said this was a case of "black tongue." The man had noticed it first three years ago, and the condition was spreading. The fungiform papillæ were greatly swollen, as shown by a microscopical examination.

Card Specimen.

The PRESIDENT.—Two drawings of rodent cancer of the face.

Dr. LEDIARD.—Epithelioma of foot.

Mr. BOWLBY.—Dermoid cyst of the finger.

Dr. HALE WHITE.—An infiltrating tumour of the bladder.

OBSTETRICAL SOCIETY OF LONDON.

MEETING, WEDNESDAY, JAN. 9, 1884.

DR. GERVIS, President, in the Chair.

The late Mr. B. R. Wheatley.

THE PRESIDENT announced to the Society the death (which had taken place that day) of Mr. B. R. Wheatley, who had acted as their assistant secretary from the foundation of the Society till about two years ago. A vote of condolence with the relatives of the late Mr. Wheatley was moved by DR. MATTHEWS DUNCAN, seconded by DR. PLAYFAIR, supported by DR. PRIESTLEY, and carried.

Hysterectomy.

Mr. KNOWSLEY THORNTON showed an enlarged uterus, surrounded by multiple fibroids, the right ovary and tube attached, the stump of a large fibrocystic tumour of uterus (also shown), and a partly calcified fibroid, of the size of a fœtal head, which had to be enucleated in order to apply the serre-nœud. The parts came from a single woman, aged 55, from whom, on account of excessive hæmorrhage and rapid growth of the tumour, they were successfully removed.

Hæmato-salpinx.

Mr. KNOWSLEY THORNTON also showed the ovaries and tubes removed from a married lady, aged 29. She had suffered from repeated hæmorrhages, which followed a severe emotional shock; and tumours were discovered to the left and right of the uterus. These were removed, and proved to be the tubes, full of tar-like blood and firmly adherent. There was also an ovarian cyst with commencing papillomatous growth. After removal of the diseased parts, the discharge gradually ceased, and the patient did well. Mr. Thornton thought the case either one of tubal pregnancy, or of hæmorrhage the result of emotional shock, the blood being prevented from escaping.

Pelvic hæmatocele from malignant disease of peritoneum.

Dr. PLAYFAIR exhibited this specimen, taken from a girl of 16, from whom he had removed an ovarian tumour in April, 1883. At the end of November she was admitted into King's College Hospital, with symptoms and signs of a retro-peritoneal hæmatocele so large as to compress and obstruct the bowel. This was first aspirated, then freely incised and drained, with immediate but temporary relief to symptoms. On autopsy, the peritoneum was found studded with masses of soft cancer, one of which had ruptured and caused the hæmorrhage. No trace of the ovariotomy ligature could be found. He had not seen recorded a case of hæmatocele from such a source. He believed its association with the ovariotomy to be only that of coincidence.

Observations on puerperal temperatures.

This paper, by Mr. E. S. TAIT, M.B., was then read.

The patients observed were in the General Lying-in Hospital: 60 were primiparæ and 65 multiparæ. The day after delivery on which the highest temperature most often occurred was the third, then the fourth, then the second. In 25 cases the highest temperature occurred during the second week, often from nervous causes. Lacerations of the perineum did not appear to affect the day of highest temperature. Mechanical interference during labour did not seem to affect the result. The average temperature was lower in those cases in which there was no tear than in those in which deep lacerations had occurred. In primiparæ the temperature appeared to be raised by labial tears, deep perineal tears, and the use of forceps; but in multiparæ no such effect could be traced. Slight perineal tears seemed to scarcely affect the temperature. The introduction of the carbolized hand into the uterus during the third stage did not affect the average temperature. In six cases there were urticarious or erythematous rashes, which did not affect the temperature. The temperature was highest in the latter part of the day, lowest in the early morning. When the 10 p.m. temperature was higher than that at 6 p.m. there was often inflammation present. The temperature frequently rose without any physical cause to account for it; and in such cases it was often found that something had happened to disturb the patient's nervous system, such as fright, bad news, &c. Accounts were given of instances of such "nervous temperatures," as they might be called.

Dr. ROUTH said, that in disease the temperature might be as much as three degrees hotter in the vagina than in the axilla. Unless therefore the temperature, in the puerperal state, were taken in each part, error might follow.

Dr. JOHN WILLIAMS thought that Mr. Tait had established two facts: that high temperatures were more common when the perineum had been deeply torn, and that high temperatures were associated with nervous conditions during the puerperal state. It was frequently said that tears of the cervix were causes of fever; he (Dr. Williams) thought they were rarely so. The relation of fever to fœtid discharge was important; in many cases the fœtor came on after the fever and not before it, and might therefore be inferred to be its result and not its cause.

Dr. GALABIN thought it would be of interest to compare, if possible, the temperatures observed in private practice with those of hospital patients. His own impression was that the range of temperature was not so high as that observed by Mr. Tait. He doubted whether, in cases of rise of temperature, apparently from nervous causes, such causes were always unmixed. It might be combined with some septic disturbance. He related a case in illustration.

Dr. GRAILY HEWITT thought the facts brought forward as to rise of temperature from emotional conditions most important. He mentioned a case in illustration. He suggested that it was probably due to temporary relaxation of the uterus, and consequent absorption of septic matter.

All that he had ever seen favoured the idea that the septic material was absorbed before the fever began.

Dr. DALY thought that fœtid discharge preceded and caused fever. This was proved by the effect of treatment. He thought the range of temperature was, as a rule, higher in hospital than in private practice.

Dr. PLAYFAIR had, time after time, observed in private practice, cases of high temperature in which he was satisfied that Mr. Tait's explanation, that they were due to emotional disturbance, was the true one. It was important to distinguish these from the more serious pyrexia due to septic mischief. In the latter an initial rigor was rarely, if ever, absent. Nervous high temperatures were not confined to the puerperal state; and temporary high temperature might be produced in the puerperal state by other than nervous causes. He knew of no facts to justify Dr. Williams's theory of the relation between fœtid discharge and pyrexia; and he hoped no one would be induced by it to underrate the importance of fœtid discharges, for no woman could be considered safe in whom such existed.

Dr. GODSON mentioned a case of pyrexia due to an emotional cause. He considered it exceptional for rise of temperature from such cause to be preceded by a rigor.

Dr. PRIESTLEY said the records in the paper of pyrexia demonstrated to be due to emotional causes showed the importance of shielding the puerperal woman, not only from physical but also from mental disturbance. They also showed that high temperature was but a unit among other symptoms, and, unless accompanied by rigor, abdominal tenderness or other signs, did not invariably indicate danger.

Dr. MATTHEWS DUNCAN called attention to the value of a regularly constructed chart, as against isolated observations. He was sure that in private practice, as great variations of temperature occurred as in hospitals. All his ideas were unfavourable to the reception of the doctrine that the fever caused the putridity of discharge. Putridity was not an essential part of the worst kind of infecting material. Infection by putridity began with the taking in of the poison, and ceased within a few hours after stoppage of the supply. This was sapræmia, without septicæmia.

Dr. CHAMPNEYS said that about the third day, on which the milk, the bowels, and surgical injuries combined to raise the temperature, diagnosis was very difficult, often impossible. Pelvic inflammation, which was often quite ephemeral, could not be excluded without vaginal examination, which had been made in the cases recorded in the paper. The evidence he had, although small in amount, of cases in which regular and frequent observations were made, showed that the range of temperature in private practice was as high as that in hospitals. The proof that "nervous temperatures" were not septic was that they only lasted a few hours, and that no infection of other patients took place. The mortality in good lying-in hospitals was becoming less than that in private practice. Fœtor of discharges was useful as a means of attracting attention.

Dr. WYNN WILLIAMS said that if septic matter came in contact with a wound and was absorbed, it was followed by rigors with diminished temperature.

The PRESIDENT said that from his experience in private practice, and from observations made in St. Thomas's Hospital Maternity Charity, he believed the average temperature in private practice was not so high as that of Mr. Tait's cases. He could quite understand that in the class of cases in which infection was brought from without, offensive discharge due to necrotic endometritis might follow and not precede the fever.

Mr. TAIT said that the observations of higher temperatures in hospital than in private patients he thought due to the greater frequency and regularity with which the temperature was taken in the former class of cases. Dr. Hewitt's explanation of the "nervous temperatures" he thought was negatived by the great rapidity of the rise and fall of the temperature in these cases. In many of them the patient looked and felt well, so that the rise of temperature would have passed unnoticed had it not been for the diligent use of the thermometer.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 18TH.

Dr. DUDFIELD, President, in the Chair.

Sanitary Work at King's Lynn.

MR. W. G. WALFORD read a paper, entitled "Nine Years' Stewardship as Medical Officer of Health at King's Lynn, its Difficulties and Results, with special reference to the Improvement of the Dwellings of the Poor." Mr. Walford took office in 1873. The town had at that time a population of 17,000, and presented the same wretched slums, poverty, overcrowding, misery, and vice as other towns of its size. For a year or so previously, an agitation, similar to that which is now going on in London, had been engaging the attention of the public and the local press, and a severe epidemic of scarlatina had prepared the minds both of the authorities and the people to acquiesce willingly not only in every sanitary improvement, but in the adoption of the notification of infectious diseases, the results of which were so satisfactory, that the fever almost disappeared for several years. Quite recently, however, the immunity enjoyed so long led to indifference, and on its breaking out again, the mortality was rather high, in consequence of the difficulty Mr. Walford then experienced in enforcing proper measures. From the first, he found the authorities always ready to put in force the various Acts relating to the dwellings of the poor, some of which had not been carried out with anything like the same thoroughness elsewhere: they paid the poor-law medical officers half-a-crown for every case of infectious disease or nuisance reported by them, and, thanks to the hearty co-operation of the district-visiting ladies, the police, and medical men generally, very few, if any, abuses could escape his notice. He also, accompanied by the borough surveyor, made regular and frequent inspections of his district. He found that it was easy to divide the poor into two classes—those who would, and those who would not, help themselves—the former gladly availing themselves of every improvement and means of bettering their position, while all such help was absolutely thrown away on the latter, who, in several instances, having been located in new houses, or in old ones that had been put in complete repair, immediately wrecked them, by using for firewood every piece of woodwork that they could tear away, and more often than not paid no rent. Lynn being a manufacturing and seaport town, there was always plenty of work to be had, and rents were lower than in many similar towns, so that he was forced to the conclusion that the wretched homes and condition of many of the poor was mainly, if not entirely, the consequence of their own improvidence and habits. Overcrowding was, he must admit, with many of the poor, merely a question of the relation between wages and rent. If a man had a large family and no regular work, or was in ill-health, it was impossible for him to afford such accommodation as sanitary requirements would demand, and it was equally impossible to drive him into the workhouse or street, or to give him a better house. Overcrowding resulting from the admission of persons for a night's lodging into rooms already fully occupied was most difficult to deal with, because difficult to ascertain. Even if the landlord ejected a family known to harbour such casual lodgers, they would only remove the evil to another quarter. As the general result of his experience, Mr. Walford considered that the existing Acts were amply sufficient to meet these various evils, so far as they could be remedied

by legislation, and he could confidently say that very great improvement had been effected during his tenure of office in the dwellings of the better class of poor; but as to the improvident and vicious, very little success had been achieved, or, indeed, could be, unless a policeman were stationed day and night at the doors, to watch over the conduct of the occupants of each house and room!

In the discussion which followed, the President, Drs. Tripe, Moore, Dixon, Armistead, and Waterworth, and Messrs. Corner, Lovett, and Wynter Blyth took part, giving their own experiences in their respective districts.

ABSTRACTS AND EXTRACTS.

Da Costa on Quebracho.—In a recent lecture, Professor Da Costa says that he has found this drug especially serviceable in two classes of cases:—(1) In purely nervous asthma he had found it invaluable; (2) he had also known it to be very useful in cases which have been rather loosely called cardiac asthma—cases in which a heart lesion has produced failure of cardiac contraction and consequent congestion of the lung. He prescribes it in twenty-minim doses of the fluid extract every hour, gradually increasing the amount—some patients requiring as much as a drachm before relief is obtained. The good effects are usually observed after two or three doses have been taken; as the respiratory symptoms are relieved, the remedy may be given at longer intervals. The taste is well covered by using as the vehicle equal parts of the French syrup of red orange and water.—*Boston Med. and Surg. Jour.*, Dec. 27, 1883.

Voluntary Luxation of the Hip-Joint.—Dr. J. N. Hall reports the case of a telegraph operator, 40 years of age, who has since childhood been able to dislocate the right hip by a muscular effort at will. After sitting for a time in the usual posture, he throws the head of the femur on to the dorsum ilii, inclines slightly to the right side, and brings the weight of the body to bear on an almost entirely new surface; when fatigued, a second muscular effort replaces it, and he resumes the usual upright position. A well-marked sound accompanies the displacement from the acetabulum. Other joints are normal, although the ligaments of the thumb are relaxed.—*Boston Med. and Surg. Jour.*, Dec. 27, 1883.

Sarcoma of the Rectum.—The patient, a man æt 43, gave a three years' history of dyschezia. Of late, evacuations had been secured only by purgatives and enemata. Hardened fæces were occasionally the cause of some bleeding from the rectum. Two years previously he had suffered with an inflammatory trouble in the perinæal region, and with retention of urine. One year ago, on introducing his finger within the rectum to relieve the tenesmus, he detected a small tumour, which was then the size of a walnut. When the man came under observation, this tumour had attained the size of the fœtal head; by an expulsive effort the mass could be made to appear outside the sphincter ani. Upon examination, the growth was found to lie beneath the mucous membrane of the bowel, having its origin in the submucous structures to which it was attached, or in the connective tissue. Dr. Levis grasped the tumour with strong hooks, pulled it downwards and easily enucleated it. After removal it was found to be rather dense and elastic; it measured nearly three inches in diameter, and weighed twenty-four ounces. Microscopical examination showed it to be a spindle-cell sarcoma, making it one of the rarest growths in this situation.—*Boston Med. and Surg. Jour.*, Dec. 27, 1883.

Iodoform Dressings.—Iodoform is a very good dressing for small lacerated or contused wounds (of the skull, *e.g.*). There is only one objection to it—the possibility of producing slight dermatitis; and this can be guarded against, by a layer of sublimate gauze directly over the wound.—*New York Med. Jour.*

Modified Small-pox Inoculation. — During the American Civil War, a medical officer of the Confederate Army found himself face to face with an outbreak of small-pox, and without any supply of vaccine, or the possibility of obtaining it. Under these circumstances the idea occurred to him that he might, so to speak, make it: he mingled small-pox virus with cow's milk, and with this mixture of milk and variolous matter he inoculated his men, and the result was in every way satisfactory. Not only did he shield his force from a murderous spread of the unmitigated disease, but he also confirmed his theory in his own estimation. As a consequence of the latter circumstance, the experiment has lately been brought into notice again, and its repetition has been suggested as a legitimate and trustworthy method of obtaining a good quality of vaccinal material for future use. We must say that the probability is vastly strengthened, that he who inoculates with small-pox virus, "modified" or unmodified, really spreads small-pox and nothing else. With this conviction, we must urge the utmost caution as to experiments in "modified inoculation."—*New York Med. Jour.*, Dec. 22, 1883.

Hystero-Epilepsy Complicating Pregnancy.—In the *New York Med. Jour.*, Dec. 22, 1883, Dr. W. H. Shipps relates the case of a young married woman, æt. 18, in whom the "hystero-epilepsy with combined crises" of Beau, devoloped during the third month of a first pregnancy. From the occasion on which she was first seen—early in March, 1883—until her delivery at term in the following September, not a day passed without the occurrence of one or more paroxysms. The attacks appeared to resist all medicinal treatment. Since the birth of the child the fits have not recurred.

Kerosene Poisoning. — A child, 18 months old, swallowed an unknown quantity of kerosene, probably not more than two ounces. When seen one hour afterwards, the patient was vomiting, purging, cyanotic; there was a tendency to coma, pulse 130, weak, irregular; respiration irregular. The treatment comprised first ordinary emetics, then stimulants and alkalies. After a few days of gastro-enteric febrile movement, the child recovered. Several ounces of kerosene are said to have been taken by adults without perceptible results.—*N. Y. Med. Rec.*, Dec. 29, 1883.

Nitrite of Sodium.—At a recent meeting of the Société de Biologie, M. Hénocque made known some interesting researches on the physiological action of nitrite of sodium. By spectroscopic examination of blood, he found that under the influence of this drug hæmoglobin temporarily lost its power of uniting with sufficient oxygen to convert it into oxyhæmoglobin; in other words, oxidation in a minor degree only is possible. He regards the action as comparable to asphyxia produced by carbonic acid, rather than that resulting from carbonic oxide, since the effect passes off by degrees, and the corpuscles resume their functions in course of time. —*Gazette Hebdomadaire de Paris*, Jan. 4.

Dislocation of the Foot Forwards and Outwards. —The *New York Medical Record* for Dec. 8, 1883, reports a case of this rare accident as follows:—"On July 20, 1883, the Rev. Mr. Y——, æt. 60, height 6 feet 2 inches, weight 200 lbs., while in the loft of his stable, attempted to descend by a stationary step-ladder to the floor below. He lost his footing and fell a distance of eight feet, striking first the lowest step of the ladder with his left heel, dislocating the ankle (foot) *forwards;* and then, after the rebound, struck the floor with the outer side of the foot, throwing the ankle (foot) violently *outwards*. When first seen, the foot was in a position nearly at right angles to its true one. The internal malleolus was at the inner border of the plantar surface of the foot, and strongly pressing against the scaphoid bone; the outer malleolus formed a prominent bony tumour at the outer side of the heel, and the articular surface of the astragalus was two inches in front of the outer malleolus, and pushing the skin of that part of the dorsum of the foot on which it impinged out to such

an extent as to be on the point of penetrating it, having forced its way through the ligaments, fascia, and tendons, until nothing but the skin itself stood in the way of the injury being a compound luxation. There was no fracture of either malleolus. Two hours after the injury the patient was etherized. Owing to the peculiar deformity, it was not deemed advisable to follow the usual method of reduction, *i.e.*, to flex the leg and then extend. The leg was kept extended and held firmly by an assistant while the heel was grasped by the right, and the dorsum of the foot by the left, hand, and forcible extension and manipulation were made. The foot was twisted in such a manner as would compel the astragalus to retrace the path it had made in getting into its abnormal position through the soft parts. In this manner the reduction was perfectly effected without very great difficulty. A roller was firmly applied and side splints put on. Hot applications were freely used and hot-water baths every day. The foot was rubbed and kneaded to prevent solidification of effused material, and the limb was elevated. On the twenty-second day the patient was able to use crutches; on the thirty-sixth he walked with a cane; and now, ten weeks after the injury, he goes without the cane, does not limp, and there is no swelling or stiffness of the joint."

PARALDEHYDE AS A HYPNOTIC.—Dr. J. C. Wilson, in the *Maryland Medical Journal*, gives his experience of the use of paraldehyde. The average dose for an adult he states to be a fluid drachm, given with a considerable draught of water on account of the unpleasant taste and odour. He has employed it with success in nine cases, but he states that several patients complained of the disagreeable after-taste. He concludes that it may form a useful addition to the ordinary hypnotics, but that it is not likely to supersede them; one great disadvantage is, that it appears speedily to require an increase of the dose.

LARGE VESICAL CALCULUS.—The patient, whose case is reported in the *Boston Med. and Surg. Jour.*, Dec. 27, 1883, was a female, æt. 38, and had been insane for over two years. A bent hair-pin, which she had introduced into the nostril, "with the object of dislodging a skunk" (she was subject to hallucinations of hearing and smell) was extracted through an incision made between the nasal bones. Soon afterwards, under the impression that some animal was lodged in the bladder, she introduced into the urethra a hair-pin, which was carried beyond her reach into the bladder; this was subsequently voided encrusted with urinary salts. A little later she introduced two hair-pins in the same way; the pain to which they gave rise at length compelled her, six months afterwards, to disclose the facts; and a calculus which weighed 950 grammes (*sic*) (30¾ ounces!), and presented the two points of a hair-pin lying towards the neck of the bladder, was extracted by an incision through the vesico-vaginal septum. The bladder-wall was already ulcerated, and at one of these points perforation into the abdominal cavity took place, the patient dying on the sixth day of peritonitis. The nature of the calculus is not stated, but it was probably phosphatic; and in the report of the case "grammes" appears to be a misprint for "grains."

SPINA BIFIDA WITH VERY LARGE TUMOUR.—Dr. M. D. Briggs reports a case of spina bifida, in which the tumour, which was about as large as an orange at birth, had, at the end of ten months, attained such a size as to measure 30 inches in its longest circumference, and 26 inches transversely. It was translucent, and filled with straw-coloured fluid. In a few days it ruptured, and the child died five days afterwards with meningeal symptoms. No post-mortem was obtained.—*N. Y. Med. Rec.*, Dec. 29, 1883.

INVERSION OF THE UTERUS, DUE TO TRACTION ON THE CORD.—Dr. Geo. Huntington, called to a case of labour, found the woman dead on his arrival. After the birth of the child, an ignorant midwife had made such traction on the cord as to invert the uterus. The woman died of hæmorrhage in less than an hour.—*N. Y. Med. Rec.*, Dec. 29, 1883.

CONGENITAL GOITRE CURED BY ONE APPLICATION OF MERCURIC IODIDE OINTMENT.—Mrs. B., healthy, had a slight goitre which had been first noticed during her previous pregnancy, about two years before. Her second child, born July 26th, 1883, exhibited a congenital goitre, the size of a hen's egg, soft and fluctuating, on the right of the trachea. Treatment was deferred until the child was three months old, when the tumour had grown so as to fill the whole space between the child's chin and sternum on the right side; it interfered with respiration when he lay on his back; the flattening of the crown of the head (Aitken) was now well marked. Mercury biniodide gr. x, and lard ʒj was ordered—a piece the size of a filbert to be well rubbed into the skin, over the whole tumour, at 10 a.m., on a bright sunny day; the child then to be held to the sun at a closed window (the weather being cool) for half-an-hour, and then in front of the fire for an hour; the application and exposure to be repeated at 2 p.m., on the same day. This was done on one day only, causing much pain and cutaneous irritation; but the tumour shrank rapidly, and in ten days' time the thyroid gland was just palpable and of the normal relative size. There was no salivation or other indication of constitutional disturbance.—*N. Y. Med. Rec.*, Dec. 29th, 1883.

THE CONSOLIDATION OF FRACTURES IN DIABETES.—Dr. Verneuil, writing on this subject (*Bull. de l'acad. de Med.*, 1883. No. 30), says that the striking points are the very slight reactive powers; callus is either absent or deficient, and consolidation is deferred. Also very little pain is felt—so little that the abnormal absence of pain makes the author suspect the presence of diabetes.—(*Centralblqtt für Klinische Medicin, Jan.* 19, 1884.)

GENERAL CORRESPONDENCE.

CONSULTANTS AND GENERAL PRACTITIONERS.

[To the Editor of the Medical Times.]

SIR,—I am obliged to "M.D." for noticing my letter, and will willingly do anything in my power to make it clearer; but I do not yet quite understand against whom his argument is directed, or whether he intends to credit me with the formidable propositions of which he asks a proof at my hands. A consultant, in ordinary practice, is one who makes a business of giving opinions in doubtful or difficult cases. Possibly "M.D." thinks there should be no such people. They exist, however, and presumably in compliance with an actual demand. "M.D." further denies that school and hospital men are fit persons for the work. I need not occupy your space with discussing this question on its merits; it is matter of fact that the great majority of the profession have arrived at an opposite view. They have decided that men trained in school and hospital work are the persons most likely to possess the particular kind of knowledge desirable in a consultant, and have thrown the bulk of consulting work into their hands. As school teachers are in consequence recruited from the *élite* of the profession, their position is not exactly comparable to that of a modern drawing master, as "M.D." would have it. "M.D." should not have forgotten that Titian and Tintoretto, Rembrandt and Rubens were "Masters" too. I certainly consider that the interests of the public, the profession at large, and the consulting body, would be better met by an adherence to strictly consulting practice on the part of, at least, the well-established consultants; but it does not, therefore, follow, as "M.D." seems to think, that a physician or surgeon is *not* a consultant, unless he does so restrict himself. Into shadowy questions of superiority and status I am unable to follow "M.D." For myself, I judge men by their work, not by their titles, and regard all properly educated medical men alike as physicians, whatever mode of practice they prefer to pursue.

I am, Sir, &c.,

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MEDICAL NEWS.

THE HOSPITALS' ASSOCIATION.

A PUBLIC meeting, to inaugurate this new association, was held at the Mansion House, under the presidency of the Lord Mayor, on Friday, February 1st. But few members of the profession were present, and the lay members of managing hospital committees were not much better represented; so far, Guy's, St. Bartholomew's, and St. Thomas's Hospitals appear not to have joined in the scheme at all.

The LORD MAYOR cordially welcomed those present to the Mansion House; everything, he said, connected with our great hospitals and their management interested him, he thought that subsequent speakers would give good reasons why such an association as the one proposed should exist, and he wished the movement every success.

Major Ross, M.P. (Middlesex Hospital), on behalf of the provisional committee, stated that the proposed association was the outcome of some previous meetings of those intimately connected with the management of some of the metropolitan and provincial hospitals, and of much promised outside sympathy. He regretted to say that the authorities of the three large endowed hospitals (Guy's, St. Bartholomew's, and St. Thomas's) had not yet joined them, but he hoped after this meeting, and when the objects in view had been established, that they would be prevailed upon to do so. Such an association, he said, among other ways, could be of service by watching Bills through Parliament, and preventing the introduction of clauses which might act vexatiously on the boards of management, and he instanced such a Bill which was introduced in the House of Lords three or four years ago, by which the members of a board would have become personally responsible for the expenditure of the hospital funds. He could not but think that gentlemen who gave their time to the hospitals ought not to be saddled with such responsibility. The association might advantageously discuss all questions involved in hospital management, such as the relation of the out-patient to the in-patient department, the financial management of hospitals, the question of payment by patients or free attendance; the relative diets of different hospitals would also form a suitable subject for their consideration. It was further proposed to form a library of works bearing on the construction, ventilation, and drainage of hospitals; new inventions might be sent for inspection and report. Foreign hospitals would, he thought, in time join with them, and thus a large and varied experience would soon be accumulated.

Sir T. F. BUXTON moved the first resolution: "That in the opinion of this meeting it is desirable to establish, under the name of the Hospitals' Association, and on the basis of the constitution prepared and adopted by the provisional committee, an organisation for the consideration and discussion of matters connected with hospital management." He said it was generally felt that some central association should be formed, by which some of the more pressing questions concerning hospitals might be authoritatively discussed; it was desirable that some sort of concert should exist between hospitals as to the terms on which both in and out-patients were admitted. He thought, for the purpose of encouraging habits of thrift among the working classes, that the provident dispensary system should be more widely diffused than at present, but all gratuitous advice and supplies of medicine given by the hospitals at present tended to thwart this movement. The very unequal distribution of the hospitals in London was another and important question, which could only be adequately dealt with by such a representative association as this one. At present not less than ten of all the hospitals lay within one mile and a-half from Charing Cross, while the outlying districts were practically without any. He hoped also that by united effort they might at last succeed in getting a Royal Commission appointed to consider the whole question. He hoped that many would join as members, even if they did not agree with the recommendations put forth.

Sir RUTHERFORD ALCOCK seconded the motion. He said there could be little difference of opinion as to the need of a better system of management than that which at present prevailed. There was now waste of energy, of money, and of time; none, except the great endowed hospitals, being able to pay their way. Those hospitals which had capital were slowly eating it up, and the remainder were in a state of insolvency, spending each year more than they received. The hospitals were made use of by those who could well afford to pay, and it would be well to establish some means to prevent this. He hoped Government might one day be induced to grant a Royal Commission to inquire into all these points.

Mr. TIMOTHY HOLMES rose to support the resolution, and he did so in order to shew that this movement had the sympathy of medical men as well as of laymen associated with hospitals. Of course he did not in any way wish to appear as the representative of his professional brethren, though he was sure that many of them were in favour of the scheme. As regards the appointment of a Royal Commission, if it should prove instrumental in acquainting the public with every detail of hospital management, it would do great good, and these institutions would be even still better supported by the public than at present. He did not approve, however, of any legislative body (such as had been referred to by previous speakers) which should have control over the hospitals, believing that their present mode of government was far preferable. He thought that a payment system, in some form, should be introduced universally. It was not a little curious that at present only two of the richest hospitals exacted payment; doubtless they had good reasons for doing so. Provident dispensaries had not answered particularly well so far; nor was it to be expected so long as people could get advice and medicine gratuitously at the hospitals. He regretted that the workhouse infirmaries, erected under Gathorne Hardy's Act, were not utilised for purposes of instruction; however important the treatment of disease among the poor was, instruction of medical men was not of less importance. The making available of these institutions for purposes of instruction was one to which the association would have to devote itself.

Mr. HILL made some observations more or less relevant to the motion, which the meeting received with signs of disapproval.

Earl STANHOPE (who now occupied the chair, the Lord Mayor having been called away) was about to put the motion to the meeting, when—

Mr. NELSON HARDY rose to object to the title of the association. He thought its functions should be more defined, and its name should indicate what its functions were. He proposed the "Hospitals' Reform Association." Then, as regards membership, the articles of the proposed constitution said that they should "consist of gentlemen *connected* with hospital administration"—would it not be better to say *interested* in?

Mr. Alderman STAPLES thought that a definite statement of the objects in view should be made by the chairman. He thought we had much better keep the hospitals and their administration in our own hands. A Royal Commission once obtained could not be limited in their enquiry, and they might suggest measures which would be very unwelcome. As to the functions of the new association, it would be very unfortunate if they introduced dissension among hospital committees, and if the idea of mismanagement was spread abroad great harm might result.

Dr. GLOVER asked whether a case had been made out for the establishment of another association. There were already the Council of the Mansion House Sunday Fund, who imposed certain conditions as regards management on all institutions who participated in their awards; and the Charity Organisation Society, which took cognisance of any very obvious imposition on the part of hospital patients. The essential feature of the association appeared to him to be one of criticism, and this he deprecated. The numbers of those who attended the hospitals every year were fallacious; the figures represented visits, and not individuals. What hospitals wanted was cash, and not criticism.

Mr. BOUSFIELD objected to Mr. Hardy's suggestion. The association was not for purposes of reform. He objected to all and sundry being admitted members of the association: only those who were connected with a hospital ought to be admitted.

Earl Stanhope (from the chair) proposed the second resolution: "That the preliminary arrangements connected with the establishment of the Council be entrusted to the Provisional Committee." One of the most important questions to be settled was whether out-patients should be made to pay. He found that each patient at the London Hospital cost 3*s.* 3*d.*, while at the Metropolitan Free the cost was only 9*d.* This could doubtless be accounted for by the nature of the case and its requirements, but the results of an inquiry could nevertheless only prove beneficial. He approved of the payment system, and regretted that there were not more provident dispensaries; he was himself connected with one which worked very successfully. He deprecated state interference with the hospitals; they would be worked more economically and more satisfactorily on their present plan than by the state.

Dr. Farquharson, M.P., seconded the resolution, and expressed himself in favour of the association.

After a vote of thanks to the chairman, the meeting broke up.

British Medical Service.—The following is a list of surgeons on probation in the medical department of the British Army who were successful at both the London and the recent Netley Examinations. The marks shown are those which were gained at the London examination; the order of position of these gentlemen is not affected by the marks gained at the Netley examination:—(1) O. G. D. Bradshaw, 2,410 (gained the Martin Memorial Gold Medal); (2) M. Kelley, 2,375; (3) H. H. Pinching, 2,335 (gained the Parkes Memorial Bronze Medal); (4) R. J. Geddes, 2,350; (5) W. Kelly, 2,185; (6) D. V. O'Connel, 2,170; (7) A. Dodd, 2,140; (8) G. Wilson, 2,121 (gained the Montefiore second prize); (9) J. M. Reid, 1,105; (10) T. B. Winter, 2,105; (11) F. S. Heuston, 2,100; (12) R. J. A. Durant, 2,055; (13) G. F. Gubbin, 2,030; (14) J. P. Myles, 1,980; (15) R. Lesly, 1,975; (16) H. P. Birch, 1,975; (17) M. O'D. Braddell, 1,880; (18) J. J. C. Donnet, 1,870; (19) H. M. Sloggett, 1,845; (20) C. S. Robinson, 1,755.

Indian Medical Service.—The following surgeons on probation in Her Majesty's Indian Medial Service were successful at both the London and Netley Examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—February 4th, 1884—(1) J. J. Pratt, 5,284 (gained the Herbert Prize of 20*l.* with the Montefiore Medal and prize of twenty guineas); (2) R. Shore, 4,870; (3) W. B. Bannerman, 4,705; (4) C. J. Sarkies, 4,696; (5) H. Thomson, 4,450.

Hospital with Circular Wards.—For some time past an attempt has been made to raise the funds needed to provide hospital accommodation for the town and district of Burnley, Lancashire. The population exceeds 100,000 persons. In addition to the sum of 1,500*l.* as the nucleus of an endowment fund, the committee have succeeded in obtaining subscriptions to the Building Fund to the extent of 12,600*l.*, and a site of two acres in extent has been generously given along with a handsome subscription of 1,000*l.*, by the executors of Colonel Hargreaves. Of the Building Fund over 3,000*l.* have been paid in by the working classes, within a period of nine months, the result of systematic collections at the mills and workshops every four weeks. These collections the committee have suspended for the present, owing to the disturbed state of the cotton trade throughout the whole district, but they hope to be able to resume them ere long. The plans approved of by the committee provide for the erection of a hospital with one-storey pavilion wards of the circular form, as suggested by Professor Marshall, Presidsnt of the Royal College of Surgeons. Two of these wards are to be built at present, with an internal diameter of sixty feet, for the accommodation of twenty beds each. The architects, Messrs. W. Waddington and Son, of Burnley and Manchester, have designed a sun-room or dog-room, on the top of each ward, with a promenade twelve feet wide all round it. Access to the roof is given by a gently sloping spiral staircase, surrounding the smoke and extraction flues, and occupying a closed-in space in the centre of the ward, sixteen feet in diameter. There is thus left for the ward itself, an annular space 22 feet in width. The height of the ward at the eaves is fifteen feet, and at the inner portion sixteen feet. The roof is formed of concrete supported on iron girders. The lineal wall space of the ward is 189 feet, giving an average wall space per bed, excluding doors of about eight feet four inches. The floor space is 132 square feet, and the cubic space 1,560 cubic feet per bed. Windows are placed between each bed, extending from two feet and a half from the floor, to within about a foot of the ceiling; and ample provision is made for ventilation, both at the floor level, and at a height of about seven feet. From the inner part of the ceiling, and also from the floor, ventilating outlets are led to an extraction shaft which encircles the smoke flues. The walls of all the wards, water-closets, and bath-rooms, are to be of glazed bricks or tiles—the floors of the wards are of oak, to be bees-waxed and polished. Separated from each ward by a cross-ventilated corridor, are the bath-room and water-closets. Connecting the circular ward with the main corridor is a well-ventilated passage, on either side of which is a single-bedded, separation ward; and between these wards and the circular ward are the nurse's room and ward scullery. A subway is provided from the cellar floor of the administration block to the wards; in this all pipes will be laid, and along it coal, foul linen, cinders, and sweepings may be conveyed. Provision is made on the site for the addition of four other wards, similar in size to those described, and also for a children's ward for fourteen beds. This is intended to be 40 feet in diameter, to have no central staircase, a sun-room, and to have a dome-shaped ceiling.

The Parkes Museum.—Captain Douglas Galton, C.B., F.R.S., presided at the opening of the spring session at the Parkes Museum, on Thursday, January 31st, when Mr. H. A. Darbishire, F.R.I.B.A., read a paper on "Artisans' and Labourers' Dwellings," in which he described in detail the blocks of dwellings erected by the Peabody trustees which, he urged, were admirably suited to the requirements of the industrial classes who desired to reside in the centre of London or other large towns. Sir Curtis M. Lamson, one of the Peabody trustees, speaking in the discussion which followed, instanced the rent-roll of the Peabody buildings, as showing that they were meeting the requirements of a large section of the labouring classes of London, who alone were admitted as tenants. The annual report for last year showed that the rents amounted to no less than 1,000*l.* a week, or 52,000*l.* a year. Sir Curtis referred to the large areas in the centre of the metropolis which were covered with miserable two-storey dwellings, and he said that, in his opinion, it ought to be illegal to erect these small houses in the centre of London. The trustees did not pretend to house the very poor, and he felt sure this would not be done properly without the intervention of Government. Mr. Mark H. Judge said, that while admitting that buildings on the Peabody plan had done much to improve the condition of the workers of London, he was persuaded that the solution of the overcrowding difficulty would not be reached until the workmen were able to follow their employers by migrating to the suburbs. One of the most needed reforms was frequent and cheap means of transit between the suburbs and the centre of the metropolis. The Artisans' Dwellings Company had demonstrated the soundness of this conclusion. The company was now the largest owner of cottage dwellings in the world, its rent-roll being upwards of 1,500*l.* a week, or half as much again as that of the Peabody trustess. The Artisans' Company, however, could not claim to have reached the very poor, for large as the rent-roll was, the loss by arrears of rent in 1883 was under 200*l.* As to Government interference, Mr. Judge maintained that the local affairs of London were no more the concern of the Legislature than were the local affairs of Liverpool. London was suffering from want of proper local government, and all who wished to see the dwellings of the poor improved might be hopeful of the immediate future with the long-promised Municipal Reform Bill practically in sight. Mr. Judge, in conclusion, said that it was of the utmost importance that reliable data should be forthcoming at the present time, seeing that the earnest attention of the public had been aroused, and he proposed

the following resolution, viz.:—"That the Council of the Parkes Museum be requested to appoint a special committee of medical men, architects, and engineers to enquire into, and report on, the condition of the dwellings of the poor." Mr. H. Rutherford, member of the Council of the Sanitary Assurance Association, seconded the resolution, which was passed, after some further discussion, in which Dr. G. V. Poore, Vice-Chairman of the Museum, referred to the overcrowding existing among the residents of Soho, where the dwellings of the wealthy of a century ago were now occupied by the poor. A vote of thanks was given to Mr. Darbishire for his valuable paper. The next lecture will be on February 12th, when Mr. J. P. Seddon, F.R.I.B.A., will read a paper on "The Ventilation of Theatres."

Gresham Lectures.—Dr. Symes Thompson has announced a course of lectures, at Gresham College, on the International Health Exhibition of 1884, and has issued the following syllabus. Lecture I.—Tuesday, February 12th, 1884. Health Exhibitions.—The aim and scope of health exhibitions; importance of bringing home to the masses of the population precise and definite knowledge of the best means for maintaining health under varying conditions. Better housing of the poor to be attained by better education of landlord and tenant. Widespread ignorance of the first principles of health preservation, and disease distribution; to gain full benefit from the forthcoming exhibition, it is needful to take note of certain primary matters; directions and suggestions derived from a visit to the Berlin Hygienic Exhibition of 1883; various departments, dress, fabrics, and manufactures; food in various countries; drinks of various countries. Lecture II.—Wednesday, February 13th, 1884. On Health in the Home.—How to secure pure air; ventilation; the admission and withdrawal of air; value of open windows and open fires, and of open spaces in large towns; water supply; the "constant system;" drainage, improved methods of construction and arrangement; furniture should not generate dust, or carpets retain it; curtains and vallances; bedding in different countries; non-inflammable felt; hygienic dresses; the school-room, desks, seats; printing of school books; books for the blind; desks for the deaf; the effects on the health from use of gas-light, electric-light, oil-lamps, and candles. Lecture III.—Thursday, February 14th, 1884. Health on the Battle Field.—Transport of sick and wounded; modes of removing a wounded comrade when under fire; hand ambulances; horse ambulances; transport wagons; padded room on wheels for the conveyance of the insane to asylum; hospital trains, arrangement of trucks for officers and for privates; the dispensary; the operating room; the kitchen; hospital tents for field of battle; primary amputations, why more dangerous than amputations for disease in hospitals; Florence Nightingale and her work. Lecture IV.—Friday, February 15th, 1884. Health Restoration in Hospital and Sick Room.—Modern improvements in hospital construction; the "cubic space" and "floor space" necessary for health; the supply and extraction of air; the heating and cooling of wards; the polishing of floors, the use of Parian walls; evils of dust; propagation of germs of disease by dust; microscopic appearances of minute organisms associated with the distribution of certain specific diseases, *e.g.*, yellow fever, cholera, pneumonia, consumption; antiseptics and disinfectants for various purposes for use on a large and small scale; power of cold dry air in destroying infection and consequent fever. The lectures are illustrated by diagrams (lime-light), are free to the public, and commence each evening at six o'clock.

Royal College of Surgeons.—Professor Parker, F.R.S., commenced his course of nine lectures on "Mammalian Descent," in the theatre of the College, on Monday last. The following is his programme, viz.: Lecture I, February 4—Introductory. Lecture II, February 6—On Monotremes. Lecture III, February 8—On Marsupials. Lecture IV, February 11—On Edentates. Lecture V, February 13—On Insectivores. Lecture VI, February 15—On Insectivores (*continued*). Lecture VII, February 18—On Insectivores (*concluded*). Lecture VIII, February 20—On the remaining Orders of the Mammalia. Lecture IX, February 22—On Man, conclusion.

Manchester Children's Hospital.—The medical report for the year 1883, showed that 7,602 new out-patients had been admitted during this year, being an increase of 687 over the numbers of 1882. Of this number 804 were made home-patients, and 230 had died. There were 45,026 attendances, and 2,456 visits to the patients' homes. The cost of each patient was 1*s.* 11½*d.* each. Of 230 deaths, nearly 89 per cent. occurred in children under two years of age. Among other matters of interest, it was noted that the number of cases of chorea applying were on the increase. Thus, in 1871 there were 40 cases of chorea out of 9,101 patients; in 1872, 39 out of 7,957; in 1873, 56 out of 8,227; in 1881, 55 out of 5,773; in 1882, 66 out of 6,916; in 1883, 80 out of 7,602. The question necessarily presented itself, was this increase of chorea due to overpressure at school? Some cases certainly had been produced, or relapses had taken place, during the hard work and mental strain of preparing for examinations. In the hospital at Pendlebury, 1,229 had been under treatment during the year, of which number 1,108 had been discharged, including 117 who had died; 43,001 days had been spent in hospital at 3*s.* 0¾*d.* per day. The average time spent in hospital by the 1,108 discharged was 38·8 days, at a cost of 5*l.* 17*s.* 8¼*d.* per patient. The number of beds, occupied daily, was 117·81. The mortality 10·5 per cent.; 131 more cases had been treated than in 1882, and more than in any other year in the history of the institution. Two hundred and fifteen cases of scarlet fever had been discharged, including 35 deaths, making a mortality of 16·7. The mortality from scarlet fever had been high in consequence of the severe type of disease received. Details of the principal cases treated will appear in the "Abstracts," to be published shortly. The report concluded with a reference to the great loss sustained by the death of the consulting physician, Dr. Borchardt.

Dublin Branch of the British Medical Association.—The seventh annual meeting of this flourishing body was held in the Statue Hall of the King and Queen's College of Physicians, on the 31st ultimo, Dr. Banks presided, and there was a large attendance. Dr. George F. Duffey read the annual report, which detailed the work done by the Branch during the past year. Reference was made to the resolution passed last year at the time when the Medical Act Amendment Bill was passing through the House of Lords, in which the report also referred to recent deputations of the Branch to the Chief Secretary of the Lord Lieutenant, on the subject of Notification of Infectious Diseases, and in support of the Union Officers' Superannuation Bill. It was announced that the Hon. Secretary, Dr. George F. Duffey, did not seek re-election this year as branch secretary, in consequence of the increasing demand upon his time; and the Council had nominated, as his successor, Dr. Richard Haynes, which was carried, after some discussion. On the motion of Dr. Jacob, seconded by Dr. Edward Hamilton, it was resolved—"That this Branch observes with regret the great blank that at present exists in the senior ranks of the Army Medical Department, and the extremely short period of home service now enjoyed by surgeons-major; and they request the Council of this Branch to take such steps as they may deem advisable, to attract the attention of the Government to these points." After the election of officers, the incoming President, Dr. Edward Hamilton, delivered an inaugural address. In the evening the members of the Branch and several distinguished guests dined together.

Dublin Branch of the British Medical Association.—The following have been elected officers. for the year 1884:—President—Edward Hamilton, MD. President Elect—Lombe Atthill, M.D. Vice-Pre idents—E. H. Bennett, M.D; T. W. Grimshaw, M.D. Council—J. K. Barton, M.D.; John T. Banks, M.D.; J. H. Chapman, F.K.Q.C.P.I.; A. H. Corley, M.D.; Geo. F. Duffey, M.D.; Samuel Gordon, M.D.; J. B. Hamilton, M.D., Surgeon-Major A.M.D.; Robert M'Donnell, M.D., F.R.S.; E. D. Mapother, M.D.; J. W. Moore, M.D.; Wm. Moroe, M.D., President K.Q.C.P.; Walter G. Smith, M.D. Representative on the Council of the Association—George F. Duffey, M.D. Hon. Sec. and Treasurer—Richard A. Hayes, M.D., 56, Merrion-square.

Manchester Medico-Ethical Association. — The annual meeting of this association was held on January 31st, 1884. The report of the committee showed the continued prosperity, with a steady increase of members and funds. The following gentlemen were elected office-bearers and members of committee for the year 1884:—President—D. Lloyd Roberts, M.D.; Vice-Presidents—G. Bowring, Esq.; C. J. Cullingworth, M.D.; F. H. Walmsley, Esq.; S. Woodcock, M.D.; Treasurer—Joseph Stone, M.D.; Secretaries—A. Wahltuch, M.D.; J. Broadbent, Esq.; Committee—H. Ashby, M.D.; W. H. Barlow, M.D.; S. Buckley, M.B.; F. H. Collins, M.D.; A. M. Edge, M.D.; J. Foster, Esq.; C. E. Glascott, M.D.; W. J. Mallett, M.D.; E. Meacham, Esq.; F. M. Pierce, M.D.; W. Walter, M.D.; J. Westmorland, Esq.

The Army Medical School at Netley.—The winter session of the Army Medical School was brought to a close, when the prizes were distributed to the successful students, on Monday, by Prince Edward of Saxe-Weimar. Before distributing the prizes, Prince Edward sketched the course of study laid down for the students in the Army Medical School and its advantages, remarking that great thanks were due to the several professors, especially to Surgeon-General Longmore, who had occupied a most distinguished position from the beginning. Director-General Dr. Crawfurd, also addressed a few words to the medical pupils, and said that as there was no special prize for pathology, he had great pleasure in following the example of Sir Joseph Fayrer by giving a copy of Quain's Dictionary of Medicine to Mr. Bradshaw, who stood highest on the list.

Sudden Death of a Medical Practitioner.—Dr. Robert Beales, of Congleton, a magistrate for that borough, and also for the county of Chester, died suddenly on Sunday, immediately after returning from visiting his patients. He was an alderman of the borough, and had been three times mayor.

The Swiney Prize.—The joint committee of the Royal College of Physicians and the Society of Arts have recommended that the award of the goblet and coin, in conformity with the provision of the late Dr. Swiney, be made in favour of Professor Sheldon Amos, M.A., author of a work entitled "A Systematic View of the Science of Jurisprudence." This prize, which consists of a goblet, value 100*l.*, containing gold coin to the same amount, is presented every fifth anniversary of Dr. Swiney's death, to the author of the best published work on medical jurisprudence during the preceding five years, and is given alternately to an exponent of the subject from a medical and from a legal standpoint.

The Grocers' Company and Sanitary Research.—The Grocers' Company have advertised the particulars of their scheme for encouragement of original research in sanitary science. They offer for competition three research scholarships, each of the value of 250*l.* per annum, tenable for one year with eligibility for re-appointment. They intend to appoint to two of these scholarships in May next, and persons who may wish to offer themselves as candidates, are invited to make their applications not later than the last day of April. The scholarships are open only to British subjects under the age of 35. Under the same scheme, and with the same object in view, the Grocers' Company have offered for competition, once in every four years, a discovery prize of the value of 1,000*l.* The prize is to be open to universal competition, British and Foreign. The subject for the first award, for which essays are to be sent in on or before the 31st day of December, 1886, is the following problem:—"To discover a method by which the vaccine contagium may be cultivated apart from the animal body in some medium or media not otherwise zymotic:—The method to be such that the contagium may by means of it be multiplied to an indefinite extent in successive generations, and that the product after any number of such generations shall (so far as can within the time be tested) prove itself of identical potency with standard vaccine lymph." The court, as already stated, will be advised by Mr. Simon, Prof. Tyndall, and Dr. Buchanan.

Canadian Doctors in Parliament.—On the resignation of Mr. Mousseau, the Lieutenant-Governor of the Province of Quebec, Dr. Robitaille, called upon the Hon. Dr. Ross to form a new ministry. Dr. McMillan, of Alexandria, O. has been gazetted a senator of the dominion. There are now over sixty members of the profession in the dominion and local houses in Canada.

Royal Institution of Great Britain. — At the General Monthly Meeting, held on Monday, the Duke of Northumberland, LL.D., D.C.L., President, in the Chair, the Earl Percy, M.P., the Lord Sudeley, the Rev. Edward Samuel Dewick, M.A., F.G.S., Mrs. Charles Hawksley, Sidney George Holland, Esq., LL.B., William S. Playfair, M.D., F.R.C.P., Augustine Robinson, Esq., James Thorne, Esq., and Robert Younger, Esq., B.A., were elected Members of the Royal Institution. Sixteen Candidates for Membership were proposed for election. Sir Joseph Hooker, K.C.S.I., C.B., F.R.S., &c., was elected a Manager in the room of the late Sir William Siemens, F.R.S.

Dublin Hospital Sunday Fund.—The annual meeting of the supporters of this fund took place on Wednesday, January 30. Dr. Grimshaw, Registrar-General for Ireland, read the annual report, in which it was stated that the fund was founded in January, 1874, and the first collection was made on Sunday, the 15th of the following November. Collections were made in 149 places of worship, and a sum of 3,306*l.* 3*s.* 2*d.* was contributed. The area has since then been gradually extended, and the increased support awarded to the fund will be seen by the following statement, which sets forth the number of collections and the amount contributed in each year:—1874, 149, 3,306*l.*; 1875, 195, 3,619*l.*; 1876, 213, 3,873*l.*; 1877, 234, 4,106*l.*; 1878, 230, 4,300*l.*; 1879, 232, 4,329*l.*; 1880, 229, 4,050*l.*; 1881, 232, 4,066*l.*; 1882, 232, 4,193*l.*; 1883, 245, 4,212*l.*—40,060*l.* Thus, a sum averaging about 4,000*l.* a year has been added to the incomes of the sixteen hospitals participating in the fund, thirteen of which were in full work before the institution of Hospital Sunday in Dublin. These satisfactory results naturally afforded ground for congratulation at the meeting. A proposition, that the Council should be instructed to make such arrangements, so as to allocate to the clergy who contribute to the fund, a number of tickets proportionate to what they considered the needs of the parish or congregation, was withdrawn after considerable discussion.

Royal College of Physicians of London.—The following candidates were admitted Licentiates, on January 31, 1884:—

Appleford, Stephen Herbert, 16, Finsbury Circus, E.C.
Armitage, Edward Harris, 23, Brook Street, W.
Beebe, Charles, Edward, 84, Cambridge Street, S.W.
Blaxland, Walter, 126, Victoria Park Road, E.
Blower, Bernard, 119, Shaw Street, Liverpool.
Branthwaite, Robert Welsh, Infirmary, Macclesfield.
Brown, Edwin Harold, Northampton.
Burroughs, Leopold, Manor Villa, Lee, S.E.
Chadwick, James Morley, Heywood, Manchester.
Croft, Edward Octavius, 46, Mornington Road, N.W.
Cummings, Harold Lytton, Dulwich, S.E.
Dowsing, Herbert Leopold, Hull.
Dyer, Sydney Reginald, County Hospital, Huntingdon.
Edwards, William Lloyd, 47, Spurstowe Road, E.
Gooding, Matthew Richard, 67, Oakley Square, N.W.
Graham, George Herbert, Thicket Road, S.E.
Graham, William, M.B. Toronto, 86, Fleet Street, E.C.
Green, Edwin Collier, 3, Telfourd Avenue, S.W.
Harris, John William, 11, St. Thomas Terrace, S.E.
Hart, Arthur Herbert, Edgbaston, Birmingham.
Hingston, Richard, Liskeard, Cornwall.
Hubbard, Frederick Edmund, Kent Hospital, Canterbury.
Hudson, Charles Leopold, Middlesex Hospital, W.
Julyan, Francis Hervey, 14, All Saints Road, W.
Knowles, Henry, Chapel Allerton, Leeds.
Littlewood, Harry, 22, Rutland Street, N.W.
Loring, Jonathan Brown, M.D. Montreal, 58, Doughty Street, W.C.
McConochie, Samuel Watson, M.B. Toronto, 75, Bancroft Road, E.
McDonnell, William Campbell, Park House, Stoke Newington, N.
Maitland, Alfred Derwent, 10, Chester Place, W.
Manders, Neville, Marlborough.
Maurice, William James, Ipswich.
Mills, Robert, Middlesex Hospital, W.
Minns, Allan Glaisyer, Thetford.
Muirhead, Michael Alexander, 33, Trinity Square, S.E.
Neale, John Headley, Highfields, Leicester.
Nuttall, Charles Dalley, 48, Bernard Street, W.C.
Orchard, Alfred, Ashby-de-la-Zouch.
Parry, Herbert Lloyd, 24, Canonbury Park North, N.
Reid, George More, Sydney, New South Wales.
Ross, Elsie Fairfax, 11, Duke Street, Portland Place, W.
Rowland, John Jones, Aberystwith.

Scutt, Tom, Bere Regis.
Sharples, William Henry, Castleton, Manchester.
Sharpley, Edward, Louth.
Sheldrake, Edwin Nodin, 28, Albion Street, W.
Simoens, Joseph Auspicio, 24, Woburn Place, W.C.
Spong, William, Chelsham Road, S.W.
Starr, William Henderson, 8, Roseford Terrace, W.
Sutton, Henry Martyn, 59, Lambeth Palace Road, S.E.
Thompson, Charles Herbert, 85, Lambeth Palace Road, S.E.
Tilley, William James, 28, Shepherd's Bush Green, W.
Tomson, Walter Bolton, St. Thomas's Hospital, S.E.
Trevor, Edward Tull, 48, Queen's Gardens, W.
Trott, Dudley Cox, Caius College, Cambridge.
Udale, Joseph James, 112, Uxbridge Road, W.
Walton, Francis Fielder, Hull.
Weller, Charles Joseph, 67, Coleshill Street, S.W.
White, Ernest Alfred, 13, Blenheim Terrace, Leeds.
Williams, Montagu William, North Eastern Hospital, Hackney Road, E.
Withers, John Sheldon, St. Mary's Hospital, Manchester.
Woods, Edward Robinson, M.B. Toronto, 75, Bancroft Road, E.

The following candidates were admitted members, on January 31, 1884:—

Acland, Theodore Dyke, M.D. Oxford, 79, Lambeth Palace Road, S.E.
Barrs, Alfred George, M.D. Edinburgh, Leeds.
Beatson, William Burns, M.D. St. Andrew's, Bath.
Branfoot, Henry Seymour, M.B. London, Brighton.
Buxton, Dudley Wilmot, M.D. London, 99, Gower Street, W.C.
Campbell, Harry, M.B. London, 40, Keppel Street, W.C.
Herbert, Charles Alfred, L.R.C.P., Westminster Hospital, S.W.
Smith, Robert Percy, M.D. London, St. Thomas's Hospital, S.E.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, January 31 :—

Barton, Henry Thos., Bonner Road, Victoria Park, E.
Carr, Thomas, Melbourne Square, Brixton, S.W.
Druitt, Arthur Barthold, Lambeth Road, S.E.
Freeland, Ernest Harding, of the Middlesex Hospital.
Gimblett, Wm. Henry, Devonport Road, Shepherd's Bush.
Hamilton, Henry Thos., Chilham, Kent.
Low, Chas. Wm., Great Plumstead.
Roberts, Geo. Augustus Edwd., Twyford, near Winchester.
Simmons, Harold, Tiverton.
Tatham, Chas. Jno. Willmer, Dollington, Sussex.
Wilkinson, Clement Jno., Gladstone Street, Southwark.
Willan, Leonard Jas., Benthal Road, Stoke Newington.

UNIVERSITY OF CAMBRIDGE.—The undermentioned candidates have kept the Act as required for the degree of Bachelor of Medicine :—

Brinton, R. D., B.A., Downing College, on January 25, 1884.
Crallan, G. E., M.A., Emmanuel College, on January 9, 1884.
Lilley, J. H., B.A., St. John's College, on January 25, 1884.
Salter, S. T., B.A., Emmanuel College, on January 24, 1884.

APPOINTMENTS.

BOOTH, E. H., M.B.—House-Physician to the Seamen's Hospital, Greenwich.
COOMBS, ROWLAND H., M.R.C.S. Eng., L.R.C.P. Lond., L.S.A.—To the Goldington District, Bedford Union.
CROCKER, J. HEDLEY, M.R.C.S., L.S.A.—House-Surgeon to Charing Cross Hospital.
DODSON, A.E., L.R.C.P., L.S.A.—House-Physician to Charing Cross Hospital.
DONALD, JAMES, M,R.C.S. Eng., L.S.A.—To the Kingston District, Kingston-on-Thames parish.
FELIX, E. L., L.S.A.—Resident Obstetric Officer to Charing Cross Hospital.
GROOM, WM., junr., M.R.C.S. Eng., L.S.A.—To the Tenth B District, Wisbech Union.
HUDSON, C. L., L.R.C.P., M.R.C.S., L.S.A.—Resident Physicians' Assistant to the Middlesex Hospital.
HUSSEY, R. L., L.S.A.—House-Physician to Charing Cross Hospital.
JAGO, E. O., M.R.C.S., L.S.A.—Medical Officer for the Cadishead District of the Barton-upon-Irwell Union.
KING, A., M.B., C.M. Ed.—Medical Officer for the Aspley Guise District of the Woburn Union.
LUCAS, A., M.R.C.S., L.S.A.—Medical Officer to the Workhouse, Woburn Union.
M'DONALD, W. B., M.B. Edin.—Medical Officer to the Parochial Board of Drainie, Elgin, N.B.
MACDOWELL, C.W., M.D.T.C.D., F.R.C.S.I.—Medical Officer to the Carlow Workhouse and Fever Hospital.
MOLYNEUX, J. F., M.R.C.S., F.R.C.P.—House-Surgeon to Charing Cross Hospital.
ROBERTS, JOHN F., L.R.C.P. Edin., L.R.C.S. Edin.—To the Ravenstonedale District, East Ward Union.
THOMSON, JOHN, B.M., M.C., M.D. Aber.—To the Dent District, Sedbergh Union.
TOMKINS, ARTHUR WELLESLEY, M.D., L.R.C.S., L.M.—Medical Officer of the Leamington District, of the Warwick Union, *vice* F. Bradley, L.R.C.P. Ed., M.R.C.S., deceased.

DEATHS.

GLEN, JOSEPH, late Physician-General of the Bombay Presidency, at 8, Brook Street, Hanover Square, on Jan. 31, in his 88th year.
HANBURY, INGHAM, Fleet Surgeon, at Bombay, on Jan. 26.
PRINCE, C. E., M.R.C.S., of Buckhurst Hill, Essex, and of Balsham, Cambridge, on Feb. 3.
SMITH, JAMES, M.R.C.S., at Belle Vue Lodge, Richmond, Surrey, on Feb. 2, in his 91st year.
THOMSON, A. T., F.R.C.S., J.P., at Montrose House, Oldham, on Jan. 29, in his 60th year.
TRAVIS, HENRY, M.D., at 20, High Street, Camden Town, on Feb. 4, aged 77.

VACANCIES.

BOSCOMBE PROVIDENT INFIRMARY, BOURNEMOUTH.—Resident Medical Officer. Salary £60 per annum, with board, &c. Candidates must be duly registered and unmarried. They are prohibited from engaging in private practice. Applications, together with copies of testimonials, to be sent to the Secretary, before February 11.
CHESTERFIELD UNION, BOLSOVER DISTRICT.—Medical Officer. Area 9,211 acres. Population 2,758. Salary £21 per annum.
CITY OF ELY DISPENSARY.—Surgeon and Dispenser. (*For particulars see Advertisement.*)
GRANTHAM UNION, GRANTHAM DISTRICT.—Medical Officer. Area 11,877 acres. Population 15,499. Salary £96 per annum.
HANTS COUNTY LUNATIC ASYLUM.—Junior Assistant Medical Officer. Salary £120 a year, with board, lodging, washing, and attendance. Candidates must be duly registered. Applications with copies of recent testimonials, to be sent to Dr. Mauley, on or before February 15.
NOTTINGHAM BOROUGH ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, apartments, and washing. Candidates must be duly qualified in Medicine and Surgery, and registered. Applications, with testimonials, stating age, &c., to be sent to the Medical Superintendent, on or before February 16.
ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.—House Surgeon. (*For particulars see Advertisement.*)
ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—Senior Resident Medical Officer. (*For particulars see Advertisement.*)
THE HOSPITAL FOR WOMEN, SOHO SQUARE.—Assistant Physician. (*For particulars see Advertisement.*)
THE GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer. (*For particulars see Advertisement.*),
THIRSK UNION, KILBURN DISTRICT.—Medical Officer. Area 2,662 acres. Population 387. Salary £8 per annum.

NOTES, QUERIES, AND REPLIES.

THE HIND FUND.

WE are requested to state that this fund will be closed on Thursday, March 6th next, until which date subscriptions will be thankfully received by Dr. Richardson, P.R.S. (chairman), 25, Manchester Square; John Tweedy, Esq., F.R.C.S., 24, Harley Street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower Street; and Thomas Wakley, jun., Esq., L.R.C.P., 96, Redcliffe Gardens, hon. secretaries; or by Messrs. Coutts & Co., Strand. The following additional contributions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—Jonathan Hutchinson, Esq. (additional donation), £5 5*s.*; Dr. C. J. Sylvester, £2 2*s.*; James Somer, Esq., £1 1*s.*; Dr. Danford Thomas, £1 1*s.*; T. Rogers, Esq., £1; Dr. Woakes, £1; H. Muscroft, Esq., 10*s.*

THE MEDICAL ACTS AMENDMENT BILL.

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—I am desirous of occupying a space in your columns with reference to the above contemplated measure, which is likely again to engage the attention of Parliament this Session, in all probability in both Houses, the discussion of its various, almost bewildering, clauses not being, as last year, confined to the Upper Chamber. Permit me to assert at commencing that I believe fully and sincerely in the remarks about to follow, which must be judged of or taken into consideration by your numerous readers, as to whether they are worthy of any attention on their part; for ample thought on the part of the profession has scarcely been sufficiently given or drawn to the radical changes proposed to be effected. When the discussion on the Bill commenced, no little surprise, and, indeed, proper indignation, was felt, and openly expressed, that the Society of Apothecaries was left out in the cold; sinister influence, apparently, had been at work. What had the Society done in the past, or what is it doing at the present, to deserve such an unmerited slight? Let that pass by. The three boards are the great panacea offered in the forthcoming Bill. The licensing bodies—many of them grand institutions in themselves, which have not only devoted their energies towards the teaching and instruction of the medical student for ages past, but have also been the means of keeping up museums and libraries—are to be thrust aside, and "the license in surgery, medicine, and midwifery of the General Medical Council" is to be the open sesame to the "Medical Register." Will the high-sounding title be cared for? All associations revered in themselves, and handed down from generation to generation, are to be ignored, for it is not to be supposed that students will choose to pay extra fees and undergo supernumerary examinations, such as that for the F.R.C.S., &c.—the admission to the portals of the profession being already so very heavy, as parents know to their cost. The General Medical Council, out of their enormous procreative funds, have for some years past devoted a sum worthily to "Visitations of Examinations." Reports extending over a lengthened period lie

before me. What do I find? That the licensing bodies have right loyally, truthfully, and honestly carried out the behests and requirements of the Council, whilst the highest educational standard has been attained that can well and in all justice be anticipated. There is a restless spirit permeating or spreading over the present age, a morbid desire for change, without caring or looking out for ulterior consequences, but I would ask members of the profession in the three divisions of the United Kingdom to rally round and close their ranks against a measure so pernicious, insidious, and destructive as the contemplated Government Medical Acts Amendment Bill.

I am, Sir, &c.,
A CONSTANT READER.

C. C. Dickson.—Your request shall be attended to.

D. A. Patvarohan, Esq., Jamkhandi, India.—Postcard and remittance received, with thanks.

L. S. A.—To become a member of the Apothecaries' Society, one must serve an apprenticeship to a member. There is a yearly payment of Ten Shillings quarterage, towards the expenses of the Chelsea garden; but this, we hear, will shortly be abolished "Constant Reader," see *Le Progrès Médical*, 1883, No. 47.

M. R. C. S.—The Director-General of the Army Medical Department is the only person who could cause you to be furnished with the papers you require. Formerly they were published in the Annual Blue-Book, but this practice has been discontinued for some time. We have heard a rumour that it is not unlikely they may shortly be made public, after each examination, through the medium of the Medical Journals.

Mr H. J. Johnstone.—We have not space to notice this pamphlet this week, but hope to give it our consideration in our next issue.

COMMUNICATIONS RECEIVED—

Sir EDMUND LECHMERE, London; Prof. PAGET, M.D., F.R.S., Cambridge; Dr. WILKS, London; Mr. WM. YOUNG, London; Mr. G. WALPOLE, London; Dr. C. ALLBUTT, Leeds; Dr. W. OSLER, Montreal; Dr. G. COATES, London; THE REGISTRAR, ROYAL COLLEGE OF PHYSICIANS, London; Dr. WAHLSUCH, Manchester; Dr. C. BROWNE, London; Dr. LUDWIG LOEWE, Berlin; THE SECRETARY, APOTHECARIES' HALL, London; THE HON. SECRETARY, MEDICAL SOCIETY OF CHARING CROSS HOSPITAL, London; THE SECRETARY, SOCIETY FOR THE ENCOURAGEMENT OF ART, &C., London; THE DIRECTOR, ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; Dr. J. W. MOORE, Dublin; Dr. ALEXANDER, Liverpool; Mr. H. RAYNER, Newcastle-on-Tyne; THE SECRETARY, ROYAL INSTITUTION, London; Mr. H. H. J. JOHNSTONE, Ramsgate; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; THE ASSISTANT SECRETARY, ROYAL MICROSCOPICAL SOCIETY, London; Mr. F. H. OLIVER, Maidstone; Mr. G. THOMSON, Oldham; THE SECRETARY, ROYAL COLLEGE OF SURGEONS, London; Mr. STONE, Wimbledon; THE SECRETARY, PARKES MUSEUM, London; Dr. E. S. THOMPSON, London; Mr. C. C. DICKSON, Edinburgh; Mr. JOHN BELLAMY, LOCAL GOVERNMENT BOARD, London; THE SECRETARY, SCHOOL OF MEDCINE, Netley; Mr. J. BROWN, Burnley, Lancashire; THE SECRETARY, ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London.

BOOKS RECEIVED—

Report on the Kensington District, Dec. 29, 1883, to Jan. 26, 1884—Transactions of the American Gynæcological Society for the year 1883—Geographical and Historical Pathology, by Dr. August Hirsch—Diseases of the Liver, by Henry R. Ruckley—Transactions of the American Surgical Association—The Drainage Schemes proposed for Ramsgate, by Henry James Johnstone, J.P., F.R.C.S.—Prodromal Symptoms of Psychical Impairment, by C. H. Hughes, M.D. St. Louis—Chronic Meconism of Papaverism, by C. H. Hughes, M.D. St. Louis—Der Hypnotismus, von Dr. Conrad Rieger—New Forms of Nerve Terminations in Mammalian Skin, by George Hoggan, M.B.—Compend of Anatomy, by J. B. Roberts, Am. M.D.—Inorganic Chemistry, by Prof. Victor von Richter—International Review of Medical and Surgical Technics—The Lockjaw of Infants, by J. F. Hartigan, M.D. Washington D.C.—Report of the Stroud General Hospital for 1883—The Relation Dairy Products bear to Disease, by Hugh Hamilton, M.D.—Massage, by G. F. Cameron.—The Sanitation and Reconstruction of Central London, by William Westgarth.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathalogical Journal—Edinburgh Medical Journal—The Analyst—An Ephemeric of Materia Medica, &c.—Sheffield and Rotherham Independent—The Ophthalmic Review—The Practitioner—Brain—The Veterinarian—Archives Générales de Médicine—The Monthly Homœopathic Review—Revue Mensuelle de Laryngologie, &c.—National Anti-Compulsory Vaccination Reporter—The Western Daily Mercury—The Glasgow Medical Journal — St. Petursburger Medicinische Wochenschrift — The Sanitary News, Chicago—The Bath Herald—The Australian Gazette—The Medical World—Popular Science News—Canada Medical and Surgical Journal.

APPOINTMENTS FOR THE WEEK.

February 11. *Monday.*

MEDICAL SOCIETY OF LONDON.—Mr. Bryant, "On the Treatment of Irreducible Hernia, and an improved method of adapting a Truss in Hernia generally;" Mr. Jonathan Hutchinson, "On Lupus Disease of the Skin."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Fourth Lecture "On Mammalian Descent."

12. *Tuesday.*

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, 8 p.m.—The following Communications will be received: (1) J. Park Harrison, Esq., M.A., "Exhibition of Skulls and other Remains from a Cemetery at Wheatley;" (2) G. B. Barron, Esq., M.D., "On a Human Skull found near Southport;" (3) Miss A. W. Buckland, "Traces of Commerce in Prehistoric Times;" (4) John T. Young, Esq., F.G.S., "On some Palæolithic Fishing Implements from the Stoke Newington and Clapton Gravels."

PARKES MUSEUM, 5 p.m.—J. P. Seddon, F.R.I.B.A., will deliver a Lecture "On the Ventilation of Theatres."

ROYAL INSTITUTION, 3 p.m.—Prof. A. Geikie, "Scenery of the British Isles."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30.—W. H. Broadbent, M.D., will read a Paper, "On Alcoholic Paralysis;" by the President, a communication from Dr. Straus of Paris, Chief of the French Scientific Commission sent to Egypt to investigate the cholera; Dr. Straus' microscopical preparations will be on view at 8 o'clock.

13. *Wednesday.*

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 p.m.—Meeting. The evening will be devoted to the discussion of Surgeon-General Hunter's Paper, "On the Origin of the Cholera Epidemic of 1883 in Egypt."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Fifth Lecture "On Mammalian Descent."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m.—Annual Meeting.

14. *Thursday.*

ROYAL INSTITUTION, 3 p.m.—Prof. Pauer, "Music for the Pianoforte," &c.

15. *Friday.*

MEDICAL SOCIETY OF CHARING CROSS HOSPITAL, 8 p.m.—Meeting. M. C. F. Clarke, M.R.C.S., &c., will read a Paper "On Skin Diseases in Children."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Sixth Lecture "On Mammalian Descent."

ROYAL INSTITUTION, 8 p.m.—Prof. Thorpe, "The Chemical Work of Wöhler."

16. *Saturday.*

ROYAL INSTITUTION, 3 p.m.—Prof. Morley, "Life and Literature under Charles I."

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES
AND GAZETTE.

No. 1755. LONDON, SATURDAY, FEBRUARY 16, 1884.

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BEIJERINCK'S RESEARCHES ON THE GUM-DISEASE IN PLANTS.

Communicated by Sir JAMES PAGET, Bart., F.R.S.

An Essay, by my friend Dr. Beijerinck,[1] on the contagion of the gum-disease in plants, which has lately been published by the Royal Academy of Sciences at Amsterdam, contains so many facts likely to be useful in the study of contagions in animals, that I venture to ask you to insert a brief notice of its chief contents. The gum-disease (gummosis, gum-flux) is only too well known to all who grow peaches, apricots, plums, cherries, or other stone fruits. A similar disease produces gum arabic, gum tragacanth, and probably many resins and gum-resins. It shows itself openly in the exudation of thick and sticky or hard and dry lumps of gum, which cling on branches of any of these trees where they have been cracked or wounded through the bark. To any students of medicine or pathology who live within range of such trees, Dr. Beijerinck's observations may suggest some interesting researches.

Dr. Beijerinck was induced to make experimental inoculations of the gum-disease by suspicions that, like some others observed in plants, it was due to bacteria. He ascertained that it is in a high degree contagious, and can easily be produced by inserting the gum under the edge of a wound through the bark of any of the trees above named. The observation that heated or long-boiled pieces of gum lose their contagious property made it most probable that a living organism was concerned in the contagions; and he then found that only those pieces of the gum conveyed contagion in which, whether with or without bacteria, there were spores of a relatively highly organised fungus, belonging to the class of ascomycetes: and that these spores, inserted by themselves under the bark, produced the same pathological changes as did the pieces of gum.

The fungus, thus detected, was examined by Professor Oudemans, who ascertained it to be a new species of Coryneum, and has named it Coryneum Beijerinckii. Its characters, which are minutely described, are chiefly that it has a cushion-like stroma, consisting of a bright brown parenchyma, on which numerous conidia stand on colourless, unicellular and very slender stems, about as long as themselves. The conidia are small, cask-shaped, about one-thirtieth of a millimetre in length, and usually divided by slightly constricting septa into four cells, of which the two terminal are longer than the two middle. From these cells germinal filaments may proceed, from which are developed either yeast-cells, or brown thick-walled and many-celled mycelia.

The inoculation experiments are best made by means

[1] *Onderzoekingen over de Besmettelijkheid der Gomziekte bij Planten*: door Dr. M. W. Beijerinck. Amsterdam, 1883. 4to.

of incisions through the bark of young branches of healthy peach-trees or cherry-trees, and by slightly raising the cut edge of the bark and putting under it little bits of gum from a diseased tree of the same kind. In nearly every instance these wounds become the seats of acute gum-disease, while similar wounds in the same or other branches of the same tree, into which no gum is inserted, remain healthy, unless, by chance, gum be washed into them during rain. The inoculation fails only when the inserted pieces of gum contain no coryneum.

By similar inoculations similar diseases can be produced in plum, almond, and apricot-trees, and with the gum of any one of these trees any other can be infected; but of many other substances which Beijerinck tried, not one produced any similar disease.

The inoculation with the gum is commonly followed by the death of more or less of the adjacent structures; first of the bark, then of the wood. Small branches or leaf-stalks thus infected in winter, or in many places at the same time, may be completely killed; but, in the more instructive experiments the first symptom of the gum-disease is the appearance of a beautiful red colour around the wound. It comes out in spots like those which often appear spontaneously on the green young branches of peach-trees that have gum-disease; and in these spots it is usual to find coryneum-stromata, or mycelium-filaments. The colour is due to the formation of a red pigment in one or more of the layers of the cells of the bark.

But in its further progress the disease extends beyond the parts at which the coryneum, or any structures derived from it, can be found; and this extension, Beijerinck believes, is due to the production of a fluid, of the nature of a ferment, produced by the coryneum, and penetrating the adjacent structures. This, acting on the cell-walls, the starch-granules, and other constituents of the cells, transforms them into gum, and even changes into gum the coryneum itself, reminding the observer of the self-digestion of a stomach.

In the cells of the cambium, the same fluid penetrating unites with the protoplasm, and so alters it that the cells produced from it form, not good normal wood, but a morbid parenchymatous structure. The cells of this parenchyma, well known among the features of gum-disease, are cubical or polyhedral, thin-walled and rich in protoplasm. This, in its turn, is transformed into gum, such as fills the gum-channels and other cavities found in wood, and sometimes regarded as gum-glands. And from this also the new ferment-fluid constantly produced, and tracking along the tissues of the branches, conveys the coryneum infection beyond the places in which its mycelium can be found.

CLINICAL LECTURES

By J. MATTHEWS DUNCAN, M.D., F.R.S.,
Physician-accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

Lecture VI.

ON CANCER OF THE CERVIX UTERI.

This is the most terrible of the diseases of women, partly because it is one of the most frequently occurring. We see less of it than of other grave diseases in "Martha," proportionally to its commonness, because a large number of the cases that come to us are utterly incurable, and can get no special benefit from hospital treatment; they are either not admitted or soon dismissed.

Sometimes these patients are not great sufferers in respect of pain or uneasiness; sometimes they have great pain. Always their condition is awful: the very name of the disease depresses and paralyses the patient, her friends, and her physician. In every case much can be done by ordinary medical attention — the use of laxatives and of opiates—the management of diet and regimen. Most cases have copious, and often fœtid, watery, ichorous discharge, whose constant flow irritates the vulvar surfaces. Against this many special means have been proposed, and much praised; but all resolves itself into mere cleanliness—a supply of dry linen, copious, so that the cloths may be frequently changed; washing with warm water; syringing with antiseptic lotions. By these means you do not prevent the discharge, you do not, unless momentarily, destroy fœtor, but you maintain comfort, and reduce the fœtor to a minimum. If a vesicovaginal fistula has been established by progressive ulceration and sloughing, and this is common, you have to use the same care as when you have only vaginal discharge; but success in maintaining comfort and cleanliness is much more difficult to attain. Ointment, as of bismuth, or of boracic acid, for the sore skin of the vulva, or of the thighs, is often of use. When there is rectovaginal fistula, which is rare, it is still the same: cleanliness is the great resource.

It is in every case impossible to state the duration of the disease. Most cases have at first no symptoms at all, or so slight, and therefore attracting little attention, that they do not come to us till the disease is far advanced. This is more true of sarcoma than of carcinoma. In diseases ending fatally, one end of the line is clearly defined by death. The beginning, also, is easily made out in many acute diseases, but in this disease we have no way of making sure of the beginning, even if we were constantly examining. It is common to say that hypertrophy and induration, or a real ulcer, not a mere abrasion, or a hardness with big-grained roughness, or a nodule with or without ulcer, or with little ulcers healing and reappearing, is the beginning of the disease, and it may be so; these are, at least, often very early indications, practically the earliest during life; but before these conditions appeared, there may have been malignant degeneration going on. We had a fatal case of cancer of the body of the uterus, sarcoma, involving all its tissues except the peritoneum, and in it the cervix had, before and after death, every appearance of health to the most careful macroscopical enquirer, and it presented the same characters of health to the finger examining per vaginam, yet microscopical investigation showed cancerous degeneration in its tissue. All statements, therefore, of the duration of this disease are to some extent mere guesses, for in most cases we have no grounds for fixing its time of beginning, and the earliest and best grounds attainable are indications of disease already considerably advanced.

Generally the patient or anxious friends press you with the question, "How long will it last?" The answer to this must always be very guarded, for at the best it is very rough; and, besides, intercurrent disease connected with the cancer may at any time and almost suddenly prove fatal, perhaps eighteen months or two years after the disease is distinctly recognised. Some sarcomas last much longer than common cancers. Sometimes, and I think especially in young people, cancer is an acute disease, running its course rapidly. A young lady applied to me on account of slight continued bloody oozing from the vagina: there was nothing unhealthy discoverable, except on the posterior vaginal wall, a wart the size of half a small pea. It was freely destroyed by caustic. The disease rapidly extended, forming large fixed masses around the lower part of the vagina, and she was dead within three months from the discovery of the wart. A patient came into hospital with a little induration of the fossa navicularis, and nothing else discoverable. She was dead in

six weeks, and the pelvis was then well filled by large masses of soft cancer. Sometimes, on the other hand, and especially in old people, the disease is very prolonged. In hard cancers of the mamma, great slowness of progress in old people is not rare. In the uterine cervix you rarely have the hardest kind of cancer, and slow progress is much rarer than in cancer of the mamma. The longest case of uterine cancer that I remember, never presented scirrhous hardness. It began as an ulcer on a soft and slightly hypertrophied cervix in a sterile woman about 48 years of age. Though the ulcer was, from the first, not an abrasion, but distinctly edged, and in appearance somewhat callous, I hoped to be able to make it heal; but my attempts by caustic were vain. She survived the discovery of the ulcer five years.

If you see a case from time to time, and find the cancer rapidly growing and extending, that indicates a speedy progress towards death. This fatal career may be accelerated by hæmorrhages. Generally, the approach of the end is preceded by recognisable morbid conditions—red and beefy tongue more frequently than foul furred tongue, progressive general weakness, progressive loss of flesh. Often the end is heralded by swelling of the lower limbs, generally from venous obstruction—often from a modified subacute phlegmasia dolens. Very rarely you have, from communicated disease of the sacral nerves, peculiar contractions of muscles, or spasms, or persistent mapped pains, in one or other leg, according to the side affected.

When you first see a case of cancer of the neck of the womb, you rarely have any difficulty of diagnosis. There have been recurrences of irregular bleeding or continued oozing of blood, discharge of watery or sanious fluid more or less copious, and frequently horribly fœtid, pain in the back, or just above the groins or down the thighs. But these three great symptoms of the disease may not only be very diversely modified; they may—one, or two, or all—be absent altogether. Cases, indeed, occur not very rarely where there are no striking symptoms even till death: and this circumstance has led to many mistakes in diagnosis. But it is not on symptoms, however severe and well marked, that you finally rely: it is mainly on the physical examination. The finger discovers one or more of the following conditions: induration, nodulation, hypertrophy, outgrowth, excavation, fixation, such as can be attributed only to cancerous growth and extension or cancerous ulceration, sloughing, and decay. It is vain to attempt to describe in words what you find, so various may it be: you will soon learn, and easily, by sad experience. If there is no bleeding, or very little, and if the vagina is not much affected, you may, through the speculum, take a look at the parts, and see a bluish, nodulated, perhaps ulcerated, ulcer perhaps having overhanging edges, portions of dirty yellow slough. I have not words to paint the grievousness of these cases. A woman, still blooming and active and useful, consults you for some trivial matter about her womb: you examine, and find cancer. At once, and unexpectedly, your diagnosis places you in a position demanding the wisest action of head and heart.

A sarcoma may present characters like those of the common cancer of the neck; but, generally, it more or less simulates a fibroid—of the neck or of the body. The uterus is not so early fixed, and constitutional symptoms may be long delayed. If you have occasion to remove any part, the histologist will settle for you whether it is a carcinoma or a sarcoma.

Every case is not easy of diagnosis, and it is necessary to consider these exceptional instances. The difficulty may be great, and the verbal description is no easy matter, so many are the conditions, and so nice the distinctions—degrees of patulousness, or of constriction of os, or of cervical canal, induration, fixation, hypertrophy, warty roughness, nodulation, outgrowth, fissuring, abrasion or erosion, kinds of ulceration, excavation. Of course, if you take plenty of time, and await the increasing ravages of the disease, you can easily reach assurance as to the nature of it. But you must, if possible, diagnose at once, and if not at once, as soon as possible. To say, this is not cancer, is grand comfort to the patient and her friends.

Sometimes a small sessile polypus, or two or three of them, or a group of hard Nabothian follicles give rise to shortlived difficulty. Sometimes great alarm is caused by the bloody and fœtid discharge of a bigger polypus, perhaps just passing through the cervix, and perhaps sloughing at its lowest part. I have seen a sloughing fibroid give rise to bad diagnosis and great alarm, as also an enucleated fibroid rotting in the vagina. In elderly women a bleeding vaginitis or a bleeding endometritis will naturally cause alarm, especially if there is also fœtid discharge.

The most common cause of difficulty and of error is mistaking for cancer a case of chronic inflammation of the cervix with hypertrophy. In such there are sometimes nodulation and deep fissures, and diffused swelling affecting even the vaginal laqueus, and the difficulty of diagnosis may be insuperable at the time. You may, indeed, have a combination of cancerous degeneration and chronic inflammatory hypertrophy. We had, not long ago, in "Martha," an instructive case of this kind. At first we diagnosed cancer, but not with high assurance, and treated for chronic inflammation—milk diet, rest in bed, laxatives, embedding the cervix in ointment of iodide of lead every night. After little more than a week there was so much improvement—diminution of hypertrophy, disappearance of surrounding swelling, resumption of natural colour—that we hoped the case would turn out to be one of mere chronic inflammation and its results. The woman left the hospital, but returned in some months with unmistakeable cancer of the cervix. Suspicious cases, however, do occur where treatment fortunately removes all disease. In these we do not cure cancer; we only remove conditions which were mistaken for those of cancer, or raised grave suspicions of that malignant disease.

We see little of syphilis in "Martha," and I have never seen a case of syphilitic ulceration of the cervix or vaginal roof that could be mistaken for cancer. We have had, and not long ago, a case of chancre of the cervix—two rounded callous ulcers, about a line in diameter, with grey bases, rapidly healed by dusting with calomel, but these ulcers did not suggest cancer. There is, however, syphilitic hypertrophy of the cervix which may be mistaken for cancer, and we have had a grand example in a woman with a syphilitic history and very depressed general health. The cervix was hypertrophied in the form of two very hard semiglobular projections, each nearly as big as a walnut, not ulcerated but abraded on their inner sides. We were disposed to regard the tumours as malignant, yet tried anti-syphilitic treatment, with amputation of the projecting lumps. Nothing but the great improvement, of local and general health, maintained for more than a year, convinced us that the disease was not malignant.

Lupus of the genital organs, or the disease so-called, may be mistaken for cancer. It often is so when it attacks the pudendum and vagina; and the disease is, in these parts, not very rare. In the cervix uteri lupus is very rare, and I have not seen any case that could give rise to mistake. Indeed, our only case in "Martha for the last six years occurred very lately, and it had no resemblance to cancer. The woman had irregular bleedings for fourteen years, and her cervix uteri

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presented a mapped ulceration that could not be mistaken for abrasion, or erosion, or malignant disease.

Parametric, or perimetric, induration may tend to increase difficulty or confusion in cases of cancer of the cervix; but on this subject I have not time now to enter, especially as I shall take it up some other day.

We have almost always some case of cancer in the wards, and it is not only cases of doubtful diagnosis that we take in for observation and treatment. We may consult a patient's convenience by giving her lodging for a few days: we may during a few days' residence, and, perhaps, by an additional consultation, satisfy the poor sufferer that her case has been well considered: we may, by our examinations, have induced bleeding, which demands plugging and horizontal rest for some time. But the cases we take into the wards are, for the most part, cases in which we hope to do decided good by operation.

I cannot say that we take in cases for extirpation of the disease by operation, hysterectomy. Would that this were the case. Seldom do we see a case such as tempts the sanguine and adventurous. Fixation of the uterus, or felt extension of the disease to the vagina or parametric or parauchenic tissues, renders any hope of extirpation foolish in most cases. Excision of the whole uterus has twice been done in "Martha," death following the operation in a few days. The operation is much more difficult than extirpation of the mamma, and it is, meantime at least, very much more dangerous; and for this reason scarcely to be recommended. In cases of the early stage of cancer of the body of the uterus, with free mobility and healthiness in other respects, the operation has good prospects, for we may hope the disease is closely localised, and may be all removed. It is not so in cancer of the cervix, for it lies in parametric or rather parauchenic tissue into which the disease has probably extended, and that without interfering with softness and mobility, or the indications of health. The parauchenic tissues cannot be so thoroughly examined as the tissues around the mamma.

Attempts to extirpate the disease, otherwise than by excision of the organ, are comparatively mere trifling, and, for my part, I say nothing for them. Partial excisions, scooping out, burning out, repeated numerous operations, are objectionable, do more harm than good. I do not say that all of these words apply to every individual case, for I have felt convinced that attempts at extirpation, attempts even, have done good. Remarkable atrophy, or shrivelling of parts, I have, in two recent cases, observed to accompany complete healing of the wounds made by the operator's caustic; and in one there was remarkable and very extraordinary retardation of progress, disease becoming again urgent only after three years of supposed or apparent good health. If we knew what cases would be so fortunate, we would operate in them; or, if such fortunate cases were frequent, we would operate in every case. But such fortunate cases are single and rare, in a large crowd, and should not govern our practice. Generally the histories of this kind of proceeding are mere lamentable samples of nimia diligentia; the patient would have been happier and healthier if carefully let alone.

In "Martha" we sometimes burn severely or deeply, and repeatedly, cancerous ulcers of the cervix, especially if the disease is not far advanced; and almost invariably it is the actual cautery that we use—Paquelin's. I daresay we sometimes do it, impelled rather by desire to please the patient by a demonstration of activity, than by strong expectation of doing good. We do not deceive either her or ourselves by hope of cure. Whether, on the whole, we do good or not, I am not quite sure. The patient is encouraged. Discharge may be diminished. Rarely, as I have just said, when speaking of cauterising, or scooping out, with a view to extirpation, there is, apparently at least, great benefit. I have seen the ulcer contract and heal completely after repeated cauterisation. But sometimes the operation acts as an irritant, and accelerates progress, or appears to do so. After all, there is probably gain on the whole. Were it not so, we would not practise it. This cauterising is our commonest treatment; and, saying commonest does not imply that it is nearly always resorted to. Far from it; in most cases it is best to do nothing—an impotence most painful to the practitioner. Cases are suitable where the ulcer constitutes the chief part of the disease, is well seen, and can be thoroughly dealt with.

Our chief reason for taking cases of cancer of the neck of the womb into "Martha," is to incise large prominent or outgrowing portions, for in this way we undoubtedly do much good—great gain that is substantial for a time; rarely is the gain not considerable; improvement in both local and general health comes quickly. Sometimes the improvement of the general health is very great, and occasionally marvellous. Encouragement of the patient, restored cheerfulness, arrested discharge, may do much; but in some cases these are not sufficient to explain the marvellous restoration, and I will give you an example from another department of pathology. In this example there was no arrested discharge, no rescue from the fear of cancer. The woman was carried into hospital in a dying state, extremely emaciated, and supposed to have malignant ovarian cystoma. She really had a great hydroperitoneum, and solid sarcoma of both ovaries. The belly was emptied, and immediately improvement began. She soon resumed a comparatively healthy appearance, put on flesh, and walked out of the hospital to resume her occupation at home. A few months afterwards she again became very ill and died. This illustrates the kind of gain we obtain by operation, and it is well worth the suffering and trouble of enduring the process.

Sometimes you have an outgrowth, and presumably nothing more, as in some cases of cauliflower excrescence. Occasionally, indeed, in this kind of tumour, you have an almost polypoid form, the thick stalk springing from a lip of the cervix. This epithelial growth, with its extensive granulated surface, bleeds freely, and discharges copiously a watery irritating fluid. All its conditions invite excision, and the results are the best, sometimes even cure; or, if not cure, failure to return while life lasts; and thus, if not cure in an absolute sense, at least cure for the individual.

But all cases of outgrowth into the vagina have not a line of treatment plainly marked out as in epithelioma, with some kind of neck; and it is desirable to state the conditions which invite operation, and those which forbid it.

First, there must be a large piece removable, it may be of the size of a walnut, or of the size of the fist. Second, there must be a fair proportion between the mass removed and the extent of wound left; it must not be a shaving off of the surface. Then, you are encouraged by the limited character of the disease, perhaps the uterus still is mobile, no masses, or even hardness, can be felt beyond the cervix and its immediate neighbourhood. Further, the more the discharge the greater the impulse to operate, for you expect the wound to contract, or even heal, and to have diminution or arrest of discharge, at least for a time; and it is probably chiefly by diminution of discharge that gain is in most cases obtained.

The operation is done by ecraseur, or by a wire sufficiently heated by galvanic current. We generally use the latter in "Martha," though we have many complaints to make against it, and have always a common wire ecraseur in reserve in case of failure of the galvanic battery. The mass is seized by vulsella, and

pulled down as far as it easily can be: the wire is passed around the base as high as to just keep clear of the pouch of Douglas and the bladder, and the amputation is effected by screwing up and taking in the wire. Bleeding rarely requires special treatment: it is arrested by plug, and we have not had occasion to use anything else: but it may be necessary to use ligature, or compressing forceps left attached for some hours. The vagina is washed out with antiseptic lotion twice daily, and healing encouraged by rest in bed, or perhaps by cauterisation.

I have said that by these operations we do not hope to cure, but to do substantial good for a time. Unfortunately the time is generally not many months, rarely for a year. But I have known cases where the disease has atrophied, and good of substantial kind has lasted for much more than a year—quite as much good as comes from operations intended to be more radical, or even to cure.

CASE OF CERVICAL PARAPLEGIA RAPIDLY FATAL.

By JONATHAN HUTCHINSON, F.R.S.,
Consulting Surgeon and Emeritus Professor of Surgery to the London Hospital.

A CASE is recorded in the St. Bartholomew's Hospital Reports, Vol. XVIII., by Dr. Gee and Dr. Abercrombie, of which the following are the abbreviated particulars:—A child, aged nearly five years, died after an illness of about three months' duration, which had begun with weakness of the right arm and slight drooping of the right upper eyelid. He had no headache, not much pain, and but little increase of temperature. The pupil of the right eye did not dilate well when shaded. There was no loss of sensation in the arm. Suddenly, at the end of six weeks, he lost the use of his legs, and his breathing became wholly diaphragmatic. He lost sensation in his legs, passed his urine and fæces under him, and had priapism when his legs were moved. He perspired very freely on the head, and on some occasions on the left side only. The right ear was hotter than the left. The condition of the upper extremities remained as at first. A swelling was noticed on right side of lowest part of neck, and the diagnosis, which at first had been infantile paralysis, was changed for that of strumous disease of the vertebræ. The knee-jerk had been lost, and, excepting the priapism, there had been absence of all cutaneous reflexes. The *post-mortem* revealed a malignant growth, which had probably commenced external to the vertebral canal, and had passed through the foramina into it. The cord was pushed aside, reduced in size by pressure, and very soft. There were other growths in the pleura and in the lung. Mr. R. W. Parker, after microscopic examination, pronounced it an alveolar sarcoma.

This case calls to my mind a not dissimilar one which I watched with great interest about a year ago. The patient, Captain B., was about 35 years of age. He had lived hard, and some years before had possibly suffered from syphilis. On account of a suspicion in this direction, he was sent to me by Dr. Walsh. He walked into my consulting room apparently ailing but little. His left arm was weak, indeed almost paralysed. His neck was held somewhat stiffly, and there appeared to be a bulging to the left at its root. This he explained as the result of an accident some years before. The weakness of the arm had only been noticed for a week or two when he came to me. I sent him into lodgings, and at once commenced the administration of mercury and iodide of potassium.

The paralysis rapidly extended. In a week he had lost the use of both arms, and was failing in his legs also. In another week he was helpless in all his limbs, unable to void his urine, or when purged to retain his fæces. His pupils were rather small and did not dilate when shaded. He perspired very profusely and almost constantly in all parts. Sensation was lost, and the catheter, which was used daily, was not felt in the least. It was thought best to explore the swelling in the neck, and this was done by an incision, under ether, down to the vertebræ, but neither abscess nor tumour was found. The patient was seen in consultation twice by Sir James Paget, and once by Dr. Hughlings Jackson. He lived about three weeks from the time of his coming up to London with his left arm weak. He died from progressive failure of the muscles of respiration. The diaphragm failed first, and his abdomen sank during inspiration and rose in expiration. Gradually the muscles of the chest wall failed from below upwards. For the last day or two he was able only to move the upper ribs, and could not get breath enough to say more than a word at a time. He had to be propped up in bed in a semi-erect position, and became breathless at once if he slipped down. During the latter period his head and upper part of neck were really the only parts of which he retained any consciousness. He died a most painful death, retaining full control of his mental powers to the last. Unfortunately we did not succeed in obtaining an autopsy. I am strongly inclined to suspect that a malignant growth was present, and this I believe was the opinion of Dr. Hughlings Jackson. The history of syphilis was doubtful, whilst that of an injury was very definite. Although we poured in iodide of potassium and gave mercury, both by the mouth and by inunction, most freely, not the slightest arrest of the progress of the paralysis occurred. No other syphilitic lesions were present.

I had never before witnessed such a definite form of brachial paraplegia as occurred in this case. For a day or two our patient could use his lower extremities sufficiently to stand whilst both arms hung helpless by his side. The order of failure of his nerves of respiration was also most exceptional. I had never before watched a death from diaphragmatic paralysis in the first instance, and failure of the external muscles afterwards. Yet such was the order observed in this case, and it was in keeping with the previously observed fact that the arms failed before the legs. I have since had under care in the London Hospital, a case in which a similar state of things existed, but in a much less severe degree. In this, the cause was a crushing of the cord from a partial displacement of the cervical vertebræ, and the patient after a long illness recovered. I find on record a few other cases in proof that it is possible for the cord to be disorganised so far as the supply to the arms is concerned, whilst that for the lower extremities is to a considerable extent preserved.

ON THE OUTBREAK OF CHOLERA IN EGYPT.

By SURGEON-GENERAL MURRAY.

I WISH to add a few remarks to what I said at the last meeting of the Epidemiological Society, in reference to Dr. Hunter's opinion of the origin of the Egyptian epidemic, which I gather from a perusal of his reports to the Government, to which he referred us. There was a sharp outbreak at Mecca in the previous year (1882), which extended with the returning pilgrims, *viâ* Medina, to the Egyptian frontier. There is no official record of its having passed the frontier, but that does not prove that it did not pass it, and remain dormant

during the cold season, resuming activity as the season advanced, as it had done in 1865–6. Its appearance in the villages on the banks of the Damietta branch of the Nile, might thus have been expected, and its virulent explosion at the large fair at Damietta was rendered probable. The reports of Dr. McNally and Mr. Honman show its existence in several villages on the banks of the Damietta branch of the river, in the latter part of May, and during June. The sudden outburst of the disease at the fair, which had existed for eight days on the 22nd June, its appearance at Port Said on the 23rd, amongst people who had returned from the fair, and the general spread of the disease to the neighbouring villages, and gradually over the country, in the natural course of human intercourse is a literal transcript of the accounts of many of the severe epidemics that have raged over India, particularly that of Hurdwar in 1879. I see no necessity for calling in the aid of a spontaneous origin to account for the outbreak in these cases, and consider the proof of communicability sufficient to show that it is not an endemic disease. If frequent recurrence in a place constitutes an endemic disease, then is small-pox endemic in Bengal, and venereal disease endemic in London, for these diseases are never absent from those places.

I am the more anxious to continue my observations on Dr. Hunter's valuable paper, because, though I am opposed to what may be termed his theoretical views of the spontaneous, or endemic, origin of cholera and its non-communicability, I cordially concur in the great advantages of sanitation in restricting the dissemination of the disease ; and in condemnation of the existing quarantine regulations, as entailing great misery on individuals, much loss to commerce, and being, at the same time, inefficacious in preventing the spread of the disease. When the subject was first agitated in India, as I was satisfied of the contagious nature of cholera, I advocated the institution of quarantine measures, such as had been sanctioned in Europe against plague. I carefully watched their operation, and found that they did not materially delay the spread of the disease. In theory, the principle of isolation is the surest indication of treatment ; but in practice, it is not possible to carry it into action, in reference to cholera, without intercepting *all* communication, which in an open commercial country cannot be done. The disease, in its incipient stage, may be transported by rail or steamer for a thousand miles without being recognised ; besides, from our increased knowledge of the ordinary channels through which it is communicated, and the little danger from personal contact, more efficient and less injurious means may be adopted to arrest the dissemination of the disease. Those in use by the British Government are in the right direction ; but that any regulations will supply a sure protection, is not to be anticipated ; but a greater degree of protection might be secured with less inconvenience and enquiry than the present quarantine regulations occasion. During the four epidemics of 1877–78–79–80, in the whole of India 154,986 villages were attacked, in 58,972 of these only one death occurred, and in 20,596 only two deaths occurred ; the total mortality in the four years was 1,380,226. One of Dr. Hunter's objections to quarantine carries great weight, and is, in my opinion, of much importance. I allude to its interference with the power of removal from the infected locality ; which measure Dr. Hunter mentions as having been so successful with the European troops in Egypt, during the late epidemic. This measure was first introduced in India in 1862, but for some time it met with considerable opposition. The military authorities objected to the responsibility of the removal resting with the medical officer ; the regimental officer objected to the trouble and inconvenience the movement into camp occasioned them ; and some of the medical officers who denied the contagious nature of the disease, and therefore considered removal useless, objected on account of the danger to the men from exposure to the sun and rains. In consequence of this opposition the Government appointed a commission (of which I was a member) to revise these regulations. Their recommendations were approved by Government, and have been in force in India since 1869, with manifest benefit to the Army, in considerable saving of life, and with the unanimous approval of all parties. I am glad to see that the British Government have now issued similar instructions applicable to their troops in all parts of the world. I have no doubt that Dr. Hunter's report has influenced this important decision, and I confidently expect that this example will be followed by all European states.

AMENORRHŒA AND VICARIOUS MENSTRUATION.

By GEO. GRANVILLE BANTOCK, M.D., F.R.S.C. Ed.,
Surgeon to the Samaritan Free Hospital.

My attention has been arrested by Dr. Wilks' note, under the above heading, in the *Medical Times* of February 9th. Dr. Wilks tells us, he has been much impressed with the practical importance of the lecture delivered by Dr. Matthews Duncan, and published in the Journal of the 2nd instant, and that, "feeling so much in accord with the sensible opinions propounded therein," he trusts these opinions "will find due weight on the minds of the younger members of the profession."

Treating of the subjects in inverted order, Dr. Wilks says of amenorrhœa, "I will only say a few words, since it is treated as a *substantive* complaint by many gynæcologists. For my own part, I know nothing of such a disorder, nor of such remedies as emmenagogues." I was under the impression that I had been taught, as a student, that amenorrhœa was *not* a substantive complaint ; but when I read such words coming from so careful a writer as Dr. Wilks, I thought within myself "surely I have not been mistaken in this matter." So I turned up some of the text books at my side, and here is the result.

Barnes tells us that the terms "amenorrhœa, menorrhagia, and dysmenorrhœa, like so many others we are obliged to use in medicine, do not represent any definite disease, but are simply general descriptions of symptoms." (1st ed., 1872, p. 178.)

Gaillard Thomas says, "From what has been already said, it is manifest that amenorrhœa is not a disease but a symptom. (5th ed., 1880, p. 638.)

Graily Hewitt teaches the same ; while Hart and Barbour, under the heading, "Amenorrhœa, Menorrhagia, and Dysmenorrhœa," say, "These three subjects, to which this section is devoted, are *not diseases*, but are symptoms of a large number of the more or less well ascertained pathological conditions already considered. (1st ed., 1882, p. 536.)

Such, then, is the teaching of our text books, and I cannot believe that there are many gynæcologists who treat this condition as a "*substantive* complaint."

With regard to vicarious menstruation, Dr. Wilks tells us that he has "always denounced the absurdity, as well as the error in fact, of a belief in this imaginary disorder." In this he is scarcely in complete accord with Dr. Duncan, who admits that "no doubt bleedings may

occur at what should be menstrual times. . . . . If there is a surface weak or predisposed to bleed, it may bleed during the excitement of a period," which is pretty much all that is contended for.

On this subject I would refer Dr. Wilks to a very remarkable case recorded by Dr. Barnes (p. 169, 1st ed.), as well as for references to other cases.

My own knowledge of this condition is limited to two cases, as follows :—

About fourteen years ago I was hastily summoned to see a lady who had just vomited some blood. The quantity was small and was thoroughly mixed with the contents of the stomach—only watery mucus. After enquiry into her condition, I was able to relieve her anxiety by telling her it was probably due to her commencing pregnancy. It was just a month from her last menstrual period. In the following month there was a recurrence of the same phenomenon, viz., vomiting of a fluid containing blood, several times, and for one or two days. In her next pregnancy she experienced the same thing at the end of the first month. She was not subjected to any treatment for it. It is, perhaps, worthy of remark that she was in the habit of menstruating rather freely.

More remarkable, however, is the following :—

In December, 1881, I removed a soft fibroid (weighing fifteen ounces) by enucleation per vaginam from J. M., æt. 54. She was a very intelligent woman, and reported that for three to four years, up to the age of eighteen, she menstruated regularly : that the menses then ceased, and she had no more discharge from the vagina till the year 1878 (she would then be 51) when she had a very severe flooding in the month of June ; that, from the age of 21, and till her 47th year, she bled from the mouth and nose with great regularity every month ; and that this bleeding was not continuous, but occurred at frequent intervals, extending over two or three days. The bleeding in June, 1878, was the first symptom of the presence of the fibroid.

It is well known that menstruation takes place without ovulation, that ovulation goes on without menstruation, and that there is no absolute dependence of the one upon the other.

It appears to me, then, that the term vicarious menstruation is a very good one for certain cases, and that it is quite as correct in its application as many terms which are generally accepted, but which are indefensible on any ground but that of usage.

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HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CALCULOUS PYELITIS AND CYSTITIS—DEATH—AUTOPSY.

(Under the care of Mr. HEATH.)

(For these notes we are indebted to Mr. VICTOR HORSLEY.)

JAMES H., a traveller for a timber merchant, aged 43, was admitted into the hospital on February 6th, suffering from difficulty in, and increased frequency of, micturition, and with pain in the region of the kidneys.

His family history was good : his own personal history showed that he had had two attacks of gonorrhœa, the last of which was very severe ; he had a sore on the penis at the same time, with glandular swelling, but no suppuration. This attack lasted about three weeks. He has always experienced some soreness along his urethra ever since the second attack, and this has always been aggravated on his "catching cold." He appears not to have suffered from any secondary affection. He is a great drinker, both of beer and spirits ; has to work about seventeen hours a day, and a good deal of walking to do.

He was an in-patient in the hospital, under Mr. Barker, last September, being admitted for retention of urine, due to the impaction of calculi in his urethra. On his admission at that time he had been drinking freely ; the bladder was distended, reaching nearly to the umbilicus. A No. 2 catheter was passed, and a quantity of ammoniacal urine being drawn off ; Mr. Barker was sent for and removed the urethral calculi, afterwards passing a No. 6 catheter, and drawing off seventeen ounces of foul urine, having a sp. gr. 1·007. His stricture was divided a few days later. This was followed by some slight rigors : his condition improved during the next few days ; the urine became more healthy, and a No. 10 could be passed easily ; he was discharged in this condition.

After leaving the hospital, he enjoyed good health until about one month ago, when he again had difficulty in micturition, the stream sometimes stopping suddenly, and then going on again, and causing pain. He has had increased frequency of micturition, both day and night ; and during the past few days, he has had much pain in his loins. These symptoms have all become aggravated since their first onset : vomiting has set in and occurs independently of food ; he has been very drowsy.

His present condition is as follows :—

He has considerable and constant pain in both loins, which runs down in the direction of the ureters, over which there is some tenderness, and especially on the left side ; there is no enlargement on either side over the kidney region. He is passing water eighteen times in 24 hours ; sometimes the stream stops suddenly ; there is generally a little pain at the commencement of micturition and during the act.

February 7th.—He slept very little during last night ; he was passing small quantities of water every ten minutes, the act being accompanied by burning pain. He complains of pain over the left kidney ; the hands are cold, the feet warm, the skin is hot and dry. His bladder was washed out with a solution of Condy's fluid.

February 8th.—Patient is weaker ; he makes great straining efforts to pass water, but small quantities only are passed. The efforts cause considerable dyspnœa. He answers questions in a whisper, and seems dull. A purge and a hot-air bath were given.

February 9th.—Patient lies in a semi-comatose condition. He vomited yesterday afternoon. A hot-air bath was given at mid-day. He became more and more comatose, and died quietly about 6 p.m.

Autopsy (made by Mr. Horsley).—The dura mater was slightly yellow in centre ; there was an excess of sub-arachnoid fluid, with marked wasting of the convolutions. All the vessels throughout the white and grey matter of the brain were overfilled, but there was no diminution in the density of the brain substance, nor any œdema. *Lungs :* Friable, slightly œdematous and hypostatically congested. Trachea and bronchi contained a quantity of muco-pus : their mucous membrane was intensely congested. Both pleural cavities were smeared over with thick purulent fluid. *Heart :* Right side contained a quantity of black or slightly decolourised *post-mortem* clot ; valves and muscular substance were normal. Left side : Valves normal ; muscular substance mottled and softer than usual. *Liver :* Rounded, the margins of the lobules were still distinct ; the substance was yellowish and extremely friable. *Spleen :* Large, swollen, and with an excess of fibrous tissue ; substance friable. *Kidneys :* The left was greatly swollen, and of a dark maroon colour.

The pelvis was of a dark blackish red colour, intensely congested; the infundibula dilated here and there, containing small irregular calculi, the largest of which measured eight by five millimetres; the kidney substance was not destroyed by pressure, was œdematous, congested, and contained numerous abscesses, averaging four to five millimetres in diameter. Right kidney: Pelvis dilated; mucous membrane of a dark reddish colour and intensely congested; all the infundibula contained calculi from two to eight millimetres in size. The calculi consist of amorphous collections of semi-crystalline urates. The kidney substance was swollen, congested, and œdematous. *Ureters:* Both were considerably dilated, their lining membrane was intensely congested, and of a slaty grey colour. *Bladder:* The mucous membrane was very rugose, the bases and margins of the rugæ being of a dark slaty grey colour; the wall was about twice its normal thickness. *Prostate* normal. *Urethra:* Membranous portion was depressed into pockets by the scars of previous ulceration; over the posterior part of the bulbous portion the mucous membrane was completely ulcerated. At the junction of the posterior and middle thirds of the penile urethra there was also some ulceration, and the rest of its extent, penile urethra was marked by numerous pockets and scar depressions. The sub-mucous tissue throughout was very hard and dense, and about two millimetres thick. *Testes* and *epididymis* normal. *Stomach:* Mucous membrane covering the rugæ was swollen, semi-gelatinous in appearance and extensively congested. The only abnormal condition throughout the small intestine was a little chronic congestion.

Medical Times and Gazette.

SATURDAY, FEBRUARY 16, 1884.

The General Medical Council is summoned to meet at two o'clock on Tuesday, March 25th, the Executive Committee the day before (March 24th), and the English Branch Council on the morning of March 25th.

Sir Trevor Lawrence did good service in asking the Home Secretary, on Monday last, by whose authority, or under what instructions the Public Prosecutor supported the criminal information against Dr. Bower and Mr. Keates; and whether the medical officer of the Treasury, or any other medical adviser, had been consulted before the Public Prosecutor, or, to follow the official exactness of Sir Henry James, the Director of Public Prosecutions appeared in the case. Sir Trevor Lawrence also asked whether any compensation would be given in the case; probably adding that part of his question simply in order to emphasise the injustice done; as the intervention of the Public Prosecutor precludes, we believe, all action for damages or compensation.

The question was answered by the Attorney-General, and his reply is for several reasons very noteworthy. We learn that the Home Secretary had nothing to say to the Public Prosecutor—we beg Sir Henry James's pardon, but ordinary mortals cannot spare the time to always say the Director of Public Prosecutions. That legal official with the long name acted entirely on his own responsibility; he did not *institute* the proceedings in any way, indeed when first applied to he refused to act. But when the parents had obtained a summons from a magistrate, they again went to the Director and pleaded *in formâ pauperis* for help. "They were American subjects" they stated, "and had no means of employing legal assistance." The heart of the Director was moved, and he thought it right they should have "aid in a qualified sense;" so he gave "special directions"—in what sense special does not appear—that "a solicitor should attend, and see that all the evidence, whether it told in favour of or against the accused, was placed before the magistrate." This "special direction" seems fair enough, supposing the Director was justified in giving any countenance to the case, and supposing that he took any care to see that his direction was fairly carried out.

But to the average mind it appeared, we more than suspect, that the prosecution was urged with "special" acrimony and insistance; and we venture to say that the public will be greatly surprised, and a new terror will have been added to "the law," if one of the functions of the Director of Public Prosecutions is to be to afford legal assistance to people who, whether they be American subjects, or subjects of any other State, when they have failed to obtain a verdict in a civil action apply to him for means to institute a criminal prosecution in the same case. Further, it is remarkable that the Attorney-General did not state that the Director had sought any medical advice whatever in the matter; but, nevertheless, in his opinion, the Director "did rightly, and was entirely free from blame." Sir Henry James went, in fact, so far as to say that the dismissal of the case was chiefly owing to the representative of the Director having placed all the facts fully and impartially before the magistrate. Did the "representative" of the Director conduct and assist the defence also?

Innumerable householders in London will sympathise with, and feel grateful to, Lord Longford, who appeared in the House of Lords, a day or two ago, in the character of "the perplexed householder" seeking for trustworthy information as to the rating powers of the Metropolitan Water Companies. He had no dispute, he said, with any of the companies, but he had to pay Queen's taxes, parochial rates, and water rates upon different valuations of the same premises, and not one of these corresponded to the rent paid; he therefore asked for, and is to have, a return, showing the charges that the several Metropolitan Water Companies "are authorised by law to levy, quoting clauses of Acts of Parliament under which their rating powers are claimed, with sketch map coloured to show the districts supplied by each company." The public will be able to obtain this "parliamentary paper" when it has been presented in the House.

Neither of the Bills introduced this year to amend the Cruelty to Animals Acts in any way touches the Vivisection Act. Mr. Anderson's short Bill has for its

object the suppression of "pigeon shooting." It provides that any person who shall either in any place kept or used for the purpose, or elsewhere, shoot at any bird liberated for the purpose, or who shall in any manner encourage, aid, or assist at such shooting, shall, on conviction, forfeit and pay a penalty not exceeding 5*l.* for every such offence. It is the same measure that last year was passed by the House of Commons, but thrown out by the Upper House. Mr. Labouchere's Bill, which is still more brief than Mr. Anderson's, simply is for the extension of the Cruelty to Animals Act, so as to make it apply to every animal, whether domestic or wild, exhibited for gain: the object being to bring under the Act, the wild beasts kept in menageries, and the bears and other animals shown about the country.

It is a refreshing novelty to find the Government taking, without any direct and continued pressure from without, a positive step forward in the protection of the public against the unrestricted sale and use of poisonous "specifics" under a Government stamp. The Vice-President of the Council, Mr. Mundella, has stated in the House of Commons that the attention of the Privy Council having been directed to some cases of death, in children, from the administration of a patent "specific for whooping-cough," a Bill dealing with the whole subject of the sale of patent medicines of a dangerous nature will shortly be introduced in the House of Lords. It would be very difficult, we suppose, to obtain, and perhaps ungenerous to ask for, a return of the number of deaths caused by patent medicines—say, within the last ten years, so that an idea might be arrived at as to the loss of life needed to stir the Privy Council into action.

A well-attended Meeting of the Clinical Society on the 8th of February was occupied, throughout a somewhat prolonged sitting, with the subjects of obliterative arteritis and pyrexial syphilis. Papers were read on the former by Mr. Pearce Gould and Dr. Hadden. The case which formed the text of Mr. Gould's paper had been previously exhibited at a meeting of the Society in November last, whilst the disease was in an acute stage, and the patient was again present to illustrate the subsequent course of the arterial changes. The discussion, which was well supported, turned chiefly upon the influence of local pressure upon arterial trunks, in the production of thrombosis or arteritis. A paper by Dr. Burney Yeo, upon a case of pyrexial syphilis, also attracted close attention, both from the interest attaching to the subject, and from the clear and concise style in which the facts, and the remarks upon them, had been written by the author. Several speakers in the subsequent debate had had experience of the occurrence of fever in syphilis, and cases were also cited of anomalous rashes due to the same cause, which had given rise to pardonable errors in diagnosis from their exact resemblance to the eruptions seen in small-pox, erythema nodosum, &c. An interesting series of living specimens was exhibited:—Symmetrical arrest of development in the third metacarpal bone of both hands, by Dr. J. K. Fowler; acne varioliformis, by Dr. Stephen Mackenzie; keloid, by Dr. Charlewood Turner; a case of diffuse syphilitic infiltration of the tissues of the neck; and Mr. Pearce Gould's case of obliterative arteritis.

Two very suggestive remarks were made in the course of the debate on Dr. Yeo's paper, the one by Mr. Jonathan Hutchinson, and the other by the author himself. Mr. Hutchinson referred to the possibility of pyrexia in the course of syphilis being at times overlooked, owing to the somewhat deficient manner in which clinical investigations are wont to be made in surgical wards. The observation is, no doubt, true, and the explanation of this regretable truth probably lies in the fact that such investigations are generally left in the hands of junior students, whilst in the medical wards the work is done by those more advanced.

There can be no reason, however, against all clinical cases being examined *thoroughly*, even though unskilfully, by the commencing student, and if a routine practice of complete examination were more generally adopted, it would be impossible for sores upon the genital organs to remain for a long time undiscovered. Such an occurrence as that described by Dr. Yeo, and by him attributed to the constant presence of ladies in the wards, would certainly be less likely to occur in future.

At the Medical Society, on Monday evening last, Sir Joseph Fayrer, F.R.S., President, in the Chair, Mr. Bryant read a short paper on the "Treatment of Irreducible Hernia, and an improved method of adapting a Truss in Hernia generally." He did not consider these forms of hernia as irremediable, nor think that they should be handed over to the mechanician. Every case, he said, was capable of reduction unless adhesion had been formed in the sac. He recommended rest in bed for a period varying from a few days to a few weeks, with restricted diet, and the continuous use of cold applications. In this way, the size of the hernial protrusion was lessened, masses of fat were absorbed, and when all had been accomplished, then, a cast of the remaining tumour should be made in plaster of Paris; metal casing was next made on this, it was covered with wash-leather, and adjusted to a spring; thus a perfectly fitting truss was obtained, which grasped the tumour, pressed on it on all sides equally, and while it protected that which could not be reduced, prevented further protrusion. Its convex pad, furthermore, never got displaced like many forms of trusses. Specimens of the truss were shown.

At the same meeting Mr. Hutchinson read an exhaustive paper on "Lupus Disease of the Skin." He began by defining what he himself meant by lupus, and his subsequent remarks were intended to enlarge the term as generally used. Mr. Hutchinson uses the term lupus, as a clinical definition for a superficial disease of skin and mucous membrane—differing from rodent ulcer, which older authorities used to include under lupus, in that, however long it may last, it never

eats in deeply—of very slow growth, having a growing infective margin, and leaving a scar on those places over which the disease has passed and expended itself. He then passed in review all the diseases having these essential features among others, showing portraits and illustrating the varieties by drawings. Each variety was separately described, its own peculiar characteristics being given, as well as the more general features which brought it within the group. Lupus begins as an ordinary inflammation, and it gets its peculiarities from the soil (patient's constitution) in which it grows. It is easily set up, slight irritations, such as cold winds, stings of gnats, &c., sufficing in a constitution predisposed for it. The cellular infiltration which is found is not a cause but a consequence of the disease; it is not infectious, or due to contagion, but when established it produces the special form of new growth—apple-jelly deposit—which is so characteristic of the malady. A scar is always left behind in those places from which the disease is receding; its amount and thickness vary according to circumstances, and the intensity of the process. The infective vigour of the new deposit is very great, for it hardly ever stops spontaneously. Mr. Hutchinson spoke of lupus vulgaris, lupus erythematosus, acne lupus (the disseminated follicular lupus of Dr. Fox), eczema lupus, lupus mutilans, lichen lupus, lupus lymphaticus, and lupus pigmentosus (Kaposi's disease), interesting specimens of which last form were shown to the Royal Medical and Chirurgical Society a few weeks ago by Dr. Radcliffe Crocker.

At the meeting of the Royal Medical and Chirurgical Society, on Tuesday last, Dr. Broadbent made a communication on alcoholic poisoning, illustrating the subject with histories of seven fatal cases. The alcohol had been taken in unusual excess, most of the patients were females, of a sedentary mode of life. One of the patients was a gentleman, who spent most of his time in bed. Dr. Wilks was quite familiar with the disease; but in one respect, at least, his experience differed from that of Dr. Broadbent; his patients had all recovered; indeed, he had been struck with this fact, that under proper treatment, which consisted chiefly in withholding alcohol, even the severe cases quite recovered. Dr. Buzzard and Dr. Barlow spoke to the same effect. The President also showed some of Dr. Straus's microscopic preparations, illustrating his recent researches on cholera in Egypt, as chief of the French Scientific Mission. A description of these will be found in our report of the Society's proceedings at their Tuesday meeting. All those who had examined the preparations agreed with Mr. Horsley, that Dr. Straus had correctly described them; but the Fellows were also agreed, that it was quite impossible to say that these germs were the special germs of the cholera morbus.

That Surgeon-General Hunter has thoroughly earned the distinction of Knight Commander of the Order of St. Michael and St. George, which we understand is about to be conferred upon him, will be the unanimous verdict of the medical profession; and this speedy and spontaneous recognition of honest labour in the service of his country adds immensely to its value. His old hospital (Charing Cross), has done itself, as well as him, honour in electing him, a few days since, to be Honorary Consulting Physician.

The adjourned debate on Surgeon-General Hunter's paper on cholera was resumed on Wednesday evening last, when Sir W. Smart, Dr. Lawson, Dr. Scriven, Dr. Thrupp, and Dr. Longhurst continued the discussion, and Sir W. J. Hunter replied. It is a matter for great regret that the debate could not have been adjourned for a day or so, to permit many other experienced men to express their views, but the President ruled that this was contrary to the laws of the Society. At the close of the meeting, Sir W. J. Hunter read a letter from Dr. George Buchanan, F.R.S., containing an extract from Bacon's "Silva Silvarum," affording a striking confirmation of his own views as to the endemic nature of the disease.

A meeting of the Medico-Psychological Association was held at Bethlem on the 5th instant, Dr. Orange, the president, occupying the chair. Dr. Savage read a paper on the constant watching of suicidal cases, in which, besides discussing the best methods of preventing suicidal patients, both by day and by night, from carrying out their intention, he spoke of the influence that determined measures of watchfulness exercise in reminding the patients of their purpose, and of prompting, and almost daring, them to make suicidal attempts. The existence of this influence was admitted and testified to by Dr. Rayner. Dr. Ley, of Prestwich, pointed out that suicides do not, as a rule, occur in what are known as suicidal cases. These are too well supervised to get a chance. The majority of suicides that occur in asylums are committed by patients in whom no suicidal tendency has previously been suspected. The general outcome of the discussion was, the advisabilty of making the precautionary and preventive measures stringent, but of keeping them as much as possible from the knowledge of the patient. Dr. Gasquet related several cases in which delusions of grandeur of a very pronounced type appeared in patients, the subjects of gross brain disease, such as thrombosis, sclerosis, and syphilis. Beyond a suggestion from Dr. Hack Tuke, that the grandiose delusion in such cases, and in cases of general paralysis, were in common dependent upon affection of the same group of convolutions, little elucidation of these cases was obtained from the discussion.

A paper, by Dr. Herbert Major, "On the Results of the Collective Record of the Causation of Insanity," brought together the figures in the statistical tables drawn up by the Association, as supplied by the superintendents of asylums for several years past. The main contention of the paper was, that as the percentage of cases attributed to any one cause remained fairly constant from year to year, the value and correctness of the tables must be admitted. This conclusion was vigorously contested by Dr. Mercier, who declared Dr. Major's conclusions to be absolutely fallacious, being founded upon data that were untrustworthy to the point of complete worthlessness. This view was supported by Dr. Huggard and Dr. Savage, and, in spite

of a protest from Dr. Hack Tuke, appeared to be in harmony with the opinion of the majority of members present. The members of the Association subsequently dined together at the Holborn Restaurant.

The third "Congress für innere Medicin" will be held this year at Berlin, from the 21st to the 24th of April, under the presidency of Prof. Frerichs. The following are the subjects put down for discussion:—"True Pneumonia: its Ætiology, Pathology, Clinical Characters, and Treatment;" "Poliomyelitis and Neuritis," and "Nervous Dyspepsia." Besides discussions on these subjects several papers are promised, amongst which are the following:—"On School-Hygiene in England, especially with reference to Infectious Diseases," by Dr. Hermann Weber; "On Reflexes," by Dr. Rosenthal, of Erlangen; "On the Localisation of the Functions of the Brain," by Dr. Goltz.

The Otologists will hold their third International Congress at Basle, from the 1st to the 4th of next September, and a strong committee, in which Englishmen will notice with pleasure the names of Mr. Dalby and Dr. Urban Pritchard, has been formed to organise a successful meeting. The Otological Congress has a four-yearly orbit; and this year, for the first time, it is in conjunction with the triennial International Medical Congress, so that it is hoped that many visitors from America and other remote countries, after visiting the latter at Copenhagen, from August 10th to 16th, will, after a leisurely progress across the Continent, present themselves at Basle on September 1st. If the two Congresses keep strictly to their respective periods, it will naturally be close upon the end of the century before they again occur in the same year. Gentlemen who wish to read papers at the Basle Meeting are requested to communicate the subjects which they intend to treat to the president, Dr. Burckhardt-Merian, of Basle, before May 15th, as it is proposed to issue a full programme of the Congress at the beginning of June. This programme will be sent to anyone who announces his intention of being present at the Congress. Besides the reading and discussion of papers, opportunities will be given for exhibiting instruments and specimens.

Those interested in the success of the new movement known as the Volunteer Medical Organisation, have every reason to be satisfied with the reception which the deputation from that body met with, on Wednesday last, at the hands of the Marquis of Hartington. The object of the deputation was, to urge upon the Secretary of State for War the desirability of forming a medical corps, to occupy the same relation to the Volunteer Forces as the Army Medical Department and Army Hospital Corps do to the regular Army, to point out how useful in time of war such a trained reserve might be, and to ask for the grant of a capitation allowance for efficient members of the corps; and further, for practical support in the shape of the issue of ambulance *materiel*. Lord Hartington, in reply, thought the scheme promised great advantages, both to the Volunteer Service and the country generally. He could not commit himself to any definite opinion until the details of the scheme had been worked out, when he had no doubt the War Office and military authorities would be willing to render every assistance in their power.

During last week out of the 28 great towns of England, as many as 17 had a death-rate of over 20 per 1,000, and their aggregate rate was 20·6. Of the eight large Scottish towns, on the other hand, the aggregate death-rate was 24·7, and only one of them had a death-rate below 20·0. This excess in the mortality of the Scottish over that in the English large centres of population is not to be entirely explained by the greater prevalence of zymotic disease in the former, though the zymotic death-rate of the 28 towns was only 2·4, and that of the eight towns as high as 4·0. The population of the eight Scottish towns is as near as possible one-seventh of that of the 28 English towns, and yet during the past week 23 cases of diphtheria and 14 of fever were registered in the former, as compared with 28 cases of diphtheria and 44 of fever registered in the latter. There is, no doubt, much room for sanitary reform in Scotland, though the current return must be admitted to be an exceptionally bad one.

Of the health of London during the past week, there is not much to be recorded. The number of deaths was 516 below the ten years' average, and the death-rate accordingly keeps satisfactorily low, viz., 19·5. The zymotic death-rate was 2·4, and has steadily kept somewhere about that level for the last six weeks. The numbers of deaths from whooping-cough, 78; and from diphtheria, 19, still continue excessive, compared with the returns from the other 27 great towns The mean temperature of the week was nearly two degrees above the average, although the clouds robbed us of seventy-two seventy-thirds of possible sunshine.

The nursing arrangements of Charing Cross Hospital have, unfortunately, been so prominently brought before the public during the past seven or eight months, that we feel sure our readers will rejoice to hear that a solution of the difficulties has been at last arrived at. It will be remembered that in November last the Council passed a resolution terminating the agreement with St. John's House at the end of June next. On Wednesday last the treasurer, who has all along made no secret of his bias in the matter, asked the Annual Court of Governors to invite the sisters who had deserted the hospital last June, to undertake the nursing in the future. To this resolution an amendment was proposed, that the nursing be entrusted as heretofore, to St. John's House, and upon being put to the meeting, the amendment was carried by an overwhelming majority, a proposal by Mr. W. H. Smith, M.P., to refer the whole question to a small committee for further report, having in the meantime been negatived.

Probably the tactics adopted by Mr. Few, and his seconder Mr. Fladgate, had a good deal to do with this result. Knowing the weakness of their own case, they

tried to shift the real point at issue, and raised the cry that it was a case of the medical staff setting themselves in opposition to the will of the governors. The statements, by which it was attempted to support this theory, bore their own refutation on the face of them, and were of a kind altogether beneath our notice. If we understand the matter aright, the position of the staff was simply this. Was it in the best interests of the patients that a set of ladies, who, for a mere pique, had deserted their work, should again be entrusted with the charge of nursing the hospital, or should those who had, during the last few months undertaken that work, and given every satisfaction in the performance thereof, be invited to continue at their posts? It is difficult to understand how any one in his sober senses could come to any other decision in such a matter than the medical staff did. The issue put before them was of the simplest kind. A horse that has once run away earns for itself the reputation that, when the occasion arises, it may do the same thing again, and the application of this general principle would make any one suspicious of the possible behaviour of the sisters of St. John the Divine in the future.

On Monday evening, the 11th instant, Mr. William Ireland Wheeler, the President of the Royal College of Surgeons in Ireland, gave a banquet in the Albert Hall of the College, in celebration of the centenary of the institution. The entertainment was honoured by the presence of His Excellency the Lord Lieutenant, several of the judges and members of the Irish bar, the Provost of Trinity College, Dublin, and other distinguished guests. The President of the College, replying to the toast of the Royal College of Surgeons, proposed in felicitous terms by the Lord Lieutenant, recalled the fact that in 1756 the Government established the County Infirmaries of Ireland. Subsequently the leading surgeons of Dublin formed a society and founded the college, to which a charter was granted on February 11th, 1784, and upon which examining powers were conferred two years later. Referring to probable medical legislation, the President observed that now, as on all former occasions, the College would be found desirous to assist in any way in promoting suggestions which were for the good of the public, while at the same time an endeavour should and would be made to preserve the functions of the College in their integrity.

A Berlin correspondent of an American journal gives some account of the surgical clinic of Prof. von Bergmann who, he says, has fully maintained the reputation of the chair of Langenbeck, to which he succeeded about a year ago. He believes in thorough antisepsis, and employs, wherever possible, his favourite antiseptic—corrosive sublimate solution (1 part to 1,000), which he first introduced at Würzburg, eight years ago. Into this the hands of operator and assistant are dipped, after thorough cleansing, and this is repeated several times during the operation, the parts of the person around the point of incision being subjected to the same treatment. Before and during the operation a spray of a three per cent. carbolic acid solution is continuously at play, covering surgeons and nurses, as well as the patient operated upon, with a fine drizzle. All instruments and ligatures are kept in an antiseptic solution during the operation except when in use. The operating table is covered with a heavy sheet of rubber, half an inch thick, which is easily and thoroughly cleaned, and kept free from septic infection. Chloroform only is the anæsthetic used, and is administered by means of a piece of flannel cloth stretched over a wire cone, about the size and shape of a very small bowl. Patients are not allowed to eat on the day of the operation before its performance. Nausea is comparatively rare, and deaths on the operating table are very seldom heard of. The head of the patient rests on a cylindrical air-cushion, which is found convenient as well as clean. Everything is immaculately clean. "The iodoform, which to an American seems to be used with such astonishing freedom, not infrequently, according to Berlin physicians, produces delirium, it is even charged with more serious results."

Whilst the plethora of young consulting physicians and surgeons in London is becoming a serious question with us, it would appear that in other countries and towns, and especially in Germany, a similar plethora exists, of unattached teachers in the very numerous schools and universities. With them, as with us, the junior appointments are eagerly sought for, and the frequently laborious duties attaching to them are performed with zeal and enthusiasm, and with no other reward than the small social distinction that such honorary public positions are supposed to carry with them. Professor Virchow has, at a recent sitting of the Prussian Parliament, called prominent attention to the existing state of things and raised the question of State recognition of the services of the Extraordinary Professors and Privat Docents in Germany. Such State aid would undoubtedly have a valuable result in retaining for their own schools the services of the most distinguished students, but at the same time it would tend to bring the medical profession still more under Government control than it is at present, a result which the recipients of State aid would themselves be most anxious to avoid. Possibly, as suggested by the editor of the *Berliner Klinische Wochenschrift*, the true remedy for the plethora of teachers is to be found in restricted admission to their ranks, since even the apparent hopelessness of success is not sufficient to check the ever-increasing number of recruits from entering the lists, under the present conditions.

The German Cholera Commission, under the direction of Professor Koch, arrived in Calcutta, on December 11th, after a short stay in Madras, where the existing arrangements for dealing with epidemics were closely investigated, although at the time no cases of cholera had occurred in the city. Every facility appears to have been afforded to the Commission in Calcutta, for carrying out its researches in the most effective manner, laboratories being at once established in the Medical College. The occurrence of one or two fatal cases of cholera in the hospital enabled pathological experiments to be commenced within two days

of the arrival of Dr. Koch and his fellow workers in India. The number of cholera cases in the capital city usually begins to increase about the middle of December, and hence, the material at the disposal of the Commission will probably amply suffice for the objects which they have in view.

Dr. Koch's fifth report, in which he gives further information as to the cholera bacillus, has just been published, and we hope to present an abstract of it to our readers in our next issue. In his previous report to the German Minister of the Interior, Herr von Bötticher, Dr. Koch tabulates the following as the immediate subjects for investigation. 1. Microscopical examination of as large a quantity of material as possible for the extension and proof of the discoveries made in Egypt of the occurrence of bacilli in the intestinal mucous membrane in cholera cases. Especially, also, investigation of the special properties of the bacilli in respect to their microscopical appearances, in order to arrive at a distinct differentiation of these from other bacilli of similar size and form. 2. Researches into the occurrence of cholera in animals. Repetition of inoculation experiments on different species of animals, with choleraic tissues; and especially by means of methods which have not hitherto been employed; as for instance, direct injection into the intestine. 3. Obtaining, by recultivation, the bacilli found in the intestine of cholera cases, and employing these recultivated organisms for inoculation experiments on animals. 4. Determination of the biological properties of the bacilli, especially the formation of spores, length of life, behaviour in different media and at different temperatures. 5. Disinfection experiments, to hinder the growth of the bacilli, or to render them innocuous.

In addition to these laboratory researches, Dr. Koch intends to devote his attention to a wider investigation. This will include—6. Examination of soil, water, and air in their relations to the infective material in cholera, in respect of the question whether this can possibly exist in certain cholera districts independently of the presence of human bodies, as for instance, in certain processes of decomposition in the soil. 7. Special researches into the cholera conditions prevalent in India. (*a.*) Connection of cholera in the endemic districts with special peculiarities in the population or their surroundings. (*b.*) Outbreaks of cholera in prisons, amongst troops, or on board ship. (*c.*) Conditions prevailing in the endemic districts, in places especially visited by cholera and in others especially free from it. (*d.*) The manner in which the spread of cholera takes place over the limits of endemic districts, and the routes by which the disease travels in India, and from India to other countries. (The intention of the Commission is to investigate especially the spread of the disease by means of religious pilgrimages, and, further, its spread along the great commercial and shipping routes.) (*e.*) The regulations which have been found conducive to the lessening of cholera in India, in the prisons, and amongst the troops, and the restrictive measures under which a striking reduction of the mortality of cholera has been effected in certain towns in India, such as Madras, Calcutta, and Pondicherry. Dr. Koch does not ignore the possibility of failure in his attempts to establish the identity of the cholera bacillus, but under any circumstances proposes to give especial attention to the practical points above enumerated.

The French Comité Consultatif d'Hygiène Publique has, on two separate occasions, reported against the employment of salicylic acid, even in small quantities, as an agent for the preservation of articles of food. As this conclusion has been much opposed by those interested in such employment, a sub-committee of the body in question has reconsidered the matter, and their reporter, Prof. Brouardel, has published their conclusions in a recent number of the *Annales d' Hygiène*. He observes that, although the beneficial operation of salicylic acid in certain diseases is fully admitted, the theory of its action is very imperfectly understood. It is however known, that when introduced into the economy it is eliminated by the kidneys and liver; and its warmest partisans admit that its use is contra-indicated in the subjects of those diseases, which prevent its due elimination, and thus give rise to an accumulation that in several instances has proved fatal. Moreover, elimination is sometimes impeded from unknown causes in persons in whom the functions of these organs work healthily; while in aged persons it is always very slow. Under any circumstances, only a portion of the salicylic acid is eliminated, the remainder undergoing combinations in the tissues, which, although they may prove therapeutically useful, and even for a time produce no evil consequences, could not be indefinitely prolonged without mischief ensuing.

Even small doses of the salicylate may prove dangerous to persons who eliminate it imperfectly; and Prof. Brouardel's investigations during several years past lead him to believe that such persons are largely on the increase. Since 1861 he has analysed the urine of all patients entering his hospital service, and his registers show that the frequency of albuminuria has more than doubled during the last twenty years. Now, these patients are not all condemned to an early death, for many recover, and others live for many years; and when examples are adduced of young and robust persons tolerating the daily use of from four to six grammes of the salicylates for months or years, we must not forget the aged persons and albuminurics, and individuals the subjects of various kinds of hepatic and renal disease, whose lives might be seriously compromised by such a regimen. The committee, therefore, believing that for such persons the daily use of salicylic acid would be highly dangerous, while even for those in good health there is no proof that it would be innocuous, recommend that its present prohibition should be maintained.

In a leading article on the recent case of Messrs. Bower and Keates, the *New York Medical Journal* for Jan. 5th draws attention to the efforts made for many years by Dr. Sayre to secure the passage of a statute, obliging persons who bring suits for malpractice

against medical men to secure the defendants against pecuniary loss in the event of failure of the suit. Such a provision, while not affording security against vexation and indirect loss, would doubtless go far towards checking frivolous prosecutions. "In so far as suits for malpractice are concerned; and, if we except abortion cases, in so far as criminal charges are founded on matters of medical practice, the annals of the prosecution of medical practitioners may be said to constitute almost an unbroken tale of malicious persecution." In England, at all events, the profession will scarcely admit the "exception" above mentioned; but there will probably be no dissent from the proposition that "as matters stand now, malice is almost the only thing needed to bring any practitioner at any time into a position where he must feel doubt and anxiety as to how the jury will view the testimony, and the painful certainty of earning a newspaper fame that will prove anything but pleasant." That civil suits may be instituted upon apparently slender evidence, is perhaps not altogether unsalutary. But a caution, in some degree commensurate with the interests involved, is usually exercised in the case of criminal prosecutions; and it is at least rare to see suits of this character commenced without there being something definite and tangible in the way of evidence to begin with.

If such a legislative safeguard as is afforded by the latent equity of ordinary judicial procedure be desirable in the interest of every citizen, it is peculiarly necessary to the members of the medical profession. To them a criminal prosecution, even though it fail, is peculiarly disastrous and specially harassing, because it strikes at the very root of the qualification which is absolutely necessary to the maintenance of their social position; and the practice of medicine implies and depends upon social position of one degree or another. Another man may be immoral in his mode of life, hard hearted, cruel or violent, a gambler or a roué, and these things may be known of him; but so long as his shortcomings are kept beneath the surface and are not obtruded within the circle of things which must be recognised, society will receive, and even welcome him, if he can produce other credentials for its favour. It is quite otherwise with the family doctor, whose life is necessarily, in one sense at all events, a public one, and whose value and usefulness must always depend so largely upon the extent to which he wins respect and trust. The mere fact of a criminal prosecution being brought against a man in such a position, implies a possibility from which his patients—such of them, at all events, as are best worth having—will shrink only less than he himself does. And though the suit fail ignominiously, it has brought with it a stigma which the world's uncharitableness—acting upon the assumption that where there is smoke there must be fire—will not quickly allow to fade, and which it will be ready upon slight provocation to revive.

It is probable that such a provision as that advocated by Dr. Sayre would, until lately, have had but little chance of becoming law in England; because it might have seemed practically to bar all chance of such actions being brought by persons of slender means. The appointment of a public prosecutor should meet this difficulty; it would be within that functionary's province to weigh the preliminary evidence put before him, and if such appeared sufficient, to institute the necessary proceedings on behalf of impecunious complainants, in the name of the State; but he should be directed to obtain such help from skilled assessors as would enable him, in any doubtful case, to decide in accordance with the real value of the evidence adduced. But it is scarcely probable that medical men would now be willing to advocate a measure by which their dearest interests should be submitted to an official whose haphazard decision, if unmodified by any assistance such as is to be derived from skilled technical advisers, might again sanction the institution of proceedings to be characterised as "persecution, not prosecution."

The sanitary history of the important district of Wandsworth, for the year 1882, shows that, although the health of the locality was not quite up to the standard of the year immediately preceding it, it was nevertheless remarkably good. Regarded solely from a statistical point of view, exceptional years are misleading, and as the year 1881 was credited with the lowest rate of mortality ever returned in any annual report for the district, the year under notice suffers to some extent by comparison with it. The less exalted vitality of the latter was, it appears, due to a greater prevalence and fatality of epidemic diseases, chiefly measles, scarlet fever, diphtheria, and whooping-cough.

Amongst the many excellent tables appended to the present report is one which exhibits the relative proportion per cent. of mortality amongst different classes during the six years 1877–82; it is as follows:—

	1877	1878	1879	1880	1881	1882
Nobility & Gentry	2·50	1·62	3·30	3·40	2·71	3·43
Professional Class	6·20	5·08	5·90	5·50	5·12	4·44
Middle Class ..	18·20	18·10	17·40	16·90	19·00	20·85
Industrial Class ..	73·10	75·20	73·40	74·20	73·17	71·28
	100·0	100·0	100·0	100·0	100·00	100·00

The report points out that a gradual diminution in the relative amount of mortality occurring amongst the industrial classes has been observable in the district for a considerable number of years; and as such a result, it goes on to say, is one of the most trustworthy evidences of sanitary improvement effected amongst that portion of the community in which it is most needed, it is satisfactory to find by the figures in this table that the reduction referred to was very much more considerable during the past year, notwithstanding the prevalence of a larger amount of epidemic disease, than in the previous year. Though great improvements in sanitation have been effected in this district, the report adds, there are many defects still waiting to be remedied, amongst the most important of which is the nuisance and danger to health arising from the manner

in which the sewers are ventilated at the expense of aërial purity in the streets, whilst in close association with this great intrinsic defect of the main drainage is the imperfection of the water supply, which, at the present time, deserves the serious consideration of the authorities.

Under the heading "Falsifying the Returns," the *New York Medical Record* makes a charge against the medical charitable institutions of New York, which, we fear, is not altogether inapplicable to places nearer home. The returns are exaggerated, "so as to create the impression that a greater amount of work is done than is actually the case. For example, a dispensary reports that it has treated 10,000 cases during a single year. The facts are, that the real number treated is about one-fourth, or even one-half, less. It is a very common custom in dispensaries to give a patient a ticket which lasts for a month. When the month is ended, if the patient is still under treatment, a new ticket is issued, and the patient is counted again. The number of cases treated is also increased (on paper) by other means. The object of these practices is twofold. The public is appealed to with additional force by these deftly manipulated statistics; for to say that '20,000 poor sufferers have been substantially relieved' is more emphatic than to speak of only 10,000. Again, the charities of the city receive pecuniary aid from the city in proportion to the amount of work done; and the more patients, the more money."

"Brevity is the soul of wit" says Polonius, and it would appear that it must also be the essence of modern popular science, as imbibed by amateurs in the healing art. Did many of our readers ever essay to deliver a course of lectures in accordance with the Syllabus of Instruction laid down by the St. John Ambulance Association? If so, the chief difficulty which has confronted them must surely have been the intense compression and condensation of important subjects demanded from the lecturer, if he is to do more than merely allude, in the boldest manner, to the various headings of his text. The course no doubt aims chiefly at practical instruction, but if lectures are to be a feature of it at all, it seems a pity that time should not be allowed, by increasing the number of lectures, for placing the varied subjects in an attractive and coherent, as well as an utilitarian shape. How, for instance, to take one lecture of the prescribed course as an example, can any idea be conveyed, in one hour, of the nature and rational treatment (even such as can be described as "first aid") of such a collection of pathological conditions as the following:—*Collapse, concussion and compression of brain, apoplexy, inebriation, epilepsy, fainting, bites by rabid animals, drowning, suffocation, burns, scalds, poisons.* A moment's reflection would seem to show the utter impractibility of conveying instruction, in a form to be assimilated and reproduced, on one half of the above subjects in twice the time. Lecturers should bear in mind how the (to them) most familiar phrases and words are foreign to the unused ear of the laity. Every word should be English, or if not English, should be written down and explained before the class. We should not then see a great truth disguised as follows:—(a fact) "Bleeding from the nose is neither *Artillery* nor *Venus*, it is *Caterpillary.*"

The *Midland Medical Miscellany*, which is nothing if not didactic, contains a note under the above heading, in which the medical man is exhorted, for the sake of himself, his horse, and his groom, to the observance of Sunday as a day of rest, "urgent, severe, and acute cases," only being attended to on that day. This exhortation, excellent and well-intentioned as no doubt it is, will, we fear, fall fruitless upon the ear of the busy practitioner, to whom release from the routine of professional work, on each seventh day, sounds as the echo of an utopian dream, towards the attainment of which he has long relinquished his ineffectual struggles.

The fact is that it is to the public, and not to the profession, that the homily should be addressed—to the public, at whose summons the medical man must abandon all dreams of rest or relaxation, on the Sunday as on all other days, and who regard the doctor's wishes or convenience with an indifference but little less than that with which the horse and groom aforesaid are considered. Is it not a fact, we would ask the *Midland Medical Miscellany*, and the profession in town and country, that a large proportion of our clients, especially among those classes who lead a busy life during the week, purposely select Sunday as a convenient opportunity for invoking the doctor's consideration of slight ailments, which are deemed too trivial for discussion during time which may, on other days, be more profitably employed? We think that most medical men would testify to the fact, that a rather larger percentage of "fresh calls," and not by any means always to cases "acute, urgent or severe," are received on Sunday than on any other day of the seven. We thoroughly agree with the sentiments of our contemporary; hoping merely that he may find an occasion of insisting upon them to those classes upon whom, not upon us, the responsibility of the doctor's Sunday work must mainly rest.

We are glad to notice the extension of the provident system of medical relief in the provinces. The managers of the Salisbury Provident Dispensary, which has hitherto had a very successful career, and last year received close upon a 1,000*l.* from nearly 7,000 provident members, have determined to extend their operations to the whole of South Wiltshire. Dr. Roberts the honorary physician, who appears to be the leading spirit of the institution, proposed the extension at a recent meeting, in a speech in which he showed a thorough grasp of the principles on which alone the provident system can achieve success. We shall look forward with interest to the future of the South Wilts provident dispensary, for if the ill-paid agricultural labourers in that county can afford to pay for their medical attendance, and can appreciate the advantages of providence, the system should surely prove to be more workable amongst the better-paid London workmen than it has hitherto been. It has worked with success for many years in some of the country districts

in Devon and Cornwall, the miners about Tavistock willingly paying at the rate of 10*s.* yearly, in advance, for medical attendance on themselves and families. In Plymouth, we regret to hear, this system has not been so successful, for though the provident dispensary there has been established for fifteen years, and many of the medical men in the town have been connected with it, the working classes show some reluctance in joining. This is attributed to the neglect of the authorities to conciliate the Friendly Societies, whose proposal to join the dispensary some years since was unwisely rejected.

The drainage of Ramsgate is decidedly a matter of more than local importance. To the inhabitants of the South-Eastern Districts of England and to the many thousand Londoners who yearly resort to what is, perhaps, the most healthy and invigorating spot in the whole country, it is of the highest interest that its sanitary arrangements should be above suspicion. And yet the problem of satisfactorily disposing of the sewage of Ramsgate is one of the most difficult that a sanitary engineer could well have to solve. The curious oscillation of the currents on the coast caused by the meeting of the Channel and North Sea tides renders it almost impossible to send the sewage well out to sea. Every plan for simply discharging unsophisticated excrement on to the shore is open to the objection that the well-known Ramsgate Sands, and the mud in its much frequented harbour, will infallibly be dangerously polluted by it. It is obvious that the only satisfactory plan would be either to convey the sewage to the North Foreland and there discharge it—a scheme which is open to many objections—or to treat it in depositing or clarifying tanks in such a way that when discharged the affluent should be more or less innocuous.

Successive Local Boards at Ramsgate have been fully alive to the importance and the difficulty of satisfactorily solving the problem, and many are the schemes that have been successively proposed and rejected. At length, the Local Board, after many years' hesitation, have in hot haste adopted a scheme, which appears to be about the worst they could have selected. We have before us an elaborate pamphlet by Mr. H. J. Johnstone, formerly Surgeon to St. George's Hospital, who has for many years devoted himself to the study of the problem, and we think he proves to demonstration that the scheme accepted by the authorities would fatally injure the health and reputation of Ramsgate. The main objections to the scheme appear to be that it involves the construction of a large tank sewer, in which the sewage would be ponded up for a certain number of hours under the most frequented part of Ramsgate, and that its contents would be discharged unchanged in such a way that a large portion would inevitably be deposited on the foreshore. There are other serious objections on which we have not space to dwell, but we hope that the whole subject will be carefully considered by the Local Government Board before it is permitted to be carried out.

With an astute recognition of the growing international character of medical science and literature, the management of the *Annales des Maladies de l'Oreille, du Larynx, &c.*, have determined to publish articles in English as well as French, and have secured the services of Dr. Morell Mackenzie, as editor of the new department. Dr. Mackenzie himself starts off in the current number with an admirable article on hypertrophy of the mucous membrane of the nose, extracted from the forthcoming volume of his work on diseases of the throat and nose. The subject is one to which very little attention has hitherto been paid by English practitioners, and many cases must go to their graves without any very exact diagnosis ever having been made. Dr. Mackenzie describes the diagnosis from polypus as easy—to those who can use the rhinoscope.

Under the head of treatment, he recommends the mildest measures in the earlier stage of disease, and though he fully describes the more active measures required in more obstinate cases, thinks it necessary to add a word of caution as to their employment: "For though," he says, "the introduction of the electric cautery and the wire ecraseur permits some relaxation of the rule under which surgeons were taught to 'cut through everything soft, to saw through everything hard, and to tie everything that bleeds,' the spirit of this simple instruction has, I fear, in recent years, sometimes influenced the young practitioner, and the nasal passages have occasionally been 'cleared' with a zeal and energy worthy of the industrious backwoodsman. In several cases that have come under my own care, in which severe measures had previously been urgently advised by others, I have succeeded in affecting a cure by the simple removal of all causes of irritation, and the persevering use of gentle dilatation. I would also warn some of my younger *confrères* that as the appearance of the interior of the nose varies in healthy persons just as much as its outward configuration, it is unnecessary, where no inconvenience is felt, to restore geometrical symmetry to the turbinated bodies, or to invest the lining membrane of the nose with artistic merit. But whilst deprecating unnecessary aggression in this tender region, I do not deny that there are many cases which can only be cured by active treatment."

The January number of *Brain* opens with an important article by Professor Grasset on the relations of hysteria to the tubercular diathesis. The writer endeavours to show that hysteria, like tubercular meningitis, is but one of the evidences of the tubercular diathesis. "In a phthisical family, you will see among the children of a tubercular subject, one dying of tubercular meningitis, another become an ordinary consumptive, while the third seems to escape the diathesis. The last may be neurotic, hypochondriac, hysterical, lunatic even; but for once he has escaped the hereditary diathesis in appearance only. He is tubercular, like the rest, though he has no tubercles anywhere. It is his neurosis which is the manifestation of his diathesic affection. And what proves it is, that in his children the diathesis is still present, and will often resume its classical type. Son and father of phthisical subjects, he does not interrupt the diathesic chain; only pulmonary phthisis is in him replaced by

hysteria. Moreover, he may prove the nature of his neurosis by becoming himself phthisical in the second portion of his life; and then there are often most remarkable phenomena of alternation and equilibration between the two manifestations of the same diathesis." This important thesis is sustained by records of numerous cases, which are analysed with care. The published article is the first instalment only of the whole paper, and we refrain from comment until the evidence is complete. In the interim we must say that the case is ably presented, and deserving of careful examination.

Dr. Buzzard contributes a case of posterior spinal sclerosis, which is completed by a microscopical examination of the cord, and is important from the fact that the morbid change is shown to have begun in the walls of the blood-vessels, and to have spread from thence to the neuroglia, and so to have affected the nerve-tissue proper. The accepted view of the origin of the change in tabes dorsalis is that it begins in the nerve-tissue and spreads secondly to the neuroglia. An excellent critical digest of the complicated subject of the innervation of the heart is given by Dr. Byrom Bramwell, forming a compendium of all that is at present known of the matter. The reviews are numerous, and are characterised, at least in two cases, by a severity which is unusual, but which is thoroughly deserved.

On Saturday last, Dr. Bayley Balfour, Professor of Botany at Glasgow, was elected from a large field of candidates to the Botanical Chair at Oxford; and on Monday his father, Dr. J. H. Balfour, died, after long years of faithful service in the corresponding Chair at Edinburgh. Dr. J. H. Balfour was born in 1808, and took his M.D. degree at Edinburgh in 1831. Ten years later he was appointed to the Chair of Botany at Glasgow, which his son has just resigned. Recalled to his alma mater, he held for many years the professorship of Medicine and Botany, and the directorship of the Edinburgh Botanical Gardens. During the last eight years of his occupancy of the Botany Chair he was assisted by his son. He was a Fellow of the Royal Society, and of many foreign academies, and the author of many books, still popular with amateur botanists, and of articles of a higher order—notably the article "Botany" in the *Encyclopædia Britannica*.

His son, Dr. Bayley Balfour, was educated at Edinburgh, and took his D.Sc. with high honours in botany, in 1875, and his M.B. and C.M. also with honours two years later. In 1874, he was appointed naturalist to the Government Transit of Venus Expedition to Rodriguez, and the results of his researches appeared in the *Philosophical Transactions*. In 1879, he was appointed Regius professor of Botany, and superintendent of the Botanic Garden and Herbarium at Glasgow. In 1880, he made a scientific survey of a spot especially dear to the medical student — the island of Socotra — the full details of his researches there being still in process of preparation. He will find his berth at Oxford a pleasant and not too onerous one. A Magdalen fellowship and a residence in the Botanic Gardens opposite are attached to the professorship, the emoluments of which amount to 700*l.* a-year.

Mr. Thomas Duxbury writes to us in connection with the Blackburn vaccination enquiry, on which we had a note last week, asking our readers to suspend their judgments for the present, as an additional enquiry has been asked for. Mr. Duxbury complains of the inaccuracy of many of Dr. Page's statements. It is not true, he tells us, that he is the secretary of the Blackburn Anti-vaccination Society, nor is it true that he never saw the deceased child. Further, one all-important witness refuses to corroborate the statements she made to Dr. Page. It seems to us that unless Mr. Duxbury can bring forward more important evidence of inaccuracy on the part of Dr. Page than is contained in his letter, there is not the slightest justification for re-opening the enquiry. The evidence on which Dr. Page formed his opinion, is probably of such a kind that Mr. Duxbury is entirely incompetent to appreciate. Mr. Duxbury does not bring forward a tittle of evidence to show that the vaccination had any evil results, for mere unreadiness on the part of the vesicles to heal means nothing in the absence of other definite pathological evidence.

According to the report recently issued the whole number of students in attendance during the last year, in the Harvard University Medical School, amounted to 240, and of those, 116 had a literary or scientific degree. There were 85 applicants for the degree of Doctor of Medicine, and of these, nine were rejected. 70 received the degree of M.D., after a three years' course of study, and six after four years; and, of these six, four received in addition the degree of A.M., two of them *cum laude*.

THE DEBATES ON CHOLERA AT THE EPIDEMIOLOGICAL SOCIETY.

The adjourned debate at the Epidemiological Society on Surgeon-General, or, as we must now call him, Sir William Hunter's report on the Cholera in Egypt, on Wednesday, went off rather slowly; for, owing to most of the speakers having exceeded the ten minutes, to which they should have been restricted, only seven of the thirteen who had sent in their names could be heard, and these, unfortunately, almost without an exception, represented one section, viz., that of the so-called "anti-contagionists," or those who deny, more or less explicitly, the propagation of the disease by human intercourse, attributing its origin and spread to local, climatic, and meteorological conditions, without the intervention of any material entity—call it germ, or poison, or what you will.

Setting aside the opinions of such extreme partisans as Inspector-General Lawson, who, as our readers may remember, ignoring entirely the results of recent microzoic pathology, denied in a communication to our pages last July, that there was any evidence of the existence of a material entity passing from one indi-

vidual to another in small-pox or scarlatina (though he did not reply to our question as to vaccination !) we may venture to express our belief that the dispute is, as regards most, a battle of words. We can only explain the strange divergence of opinion among many who have had equal experience, and, we may assume, possess equal judgment, as the result of a blind adhesion to the crude conceptions of a bygone pathology, preserved in the popular notion of contagion, which they have failed to modify with the progress of scientific observation and research. We freely admit that cholera is not contagious in the same sense as small-pox, measles, and scarlatina are—that is, communicated independently of all external conditions whatever from one individual to another by the direct passage from one to the other of some poison probably, if not certainly, material and living ; but we believe that there is evidence, irresistible, though as yet circumstantial only, that a specific and presumably similar entity constitutes the essence of cholera, though the mode of its propagation be somewhat different—that is, that instead of being immediate and independent of external conditions, it requires the concurrence of various factors collectively known as sanitary surroundings and meteorological or climatic conditions, and probably also a certain modification or development of the poison out of the body.

Call it a miasm, if you will, from its dependence on local circumstances the fact of its being epidemic and not solely endemic shows that it is not like the miasmata proper, the malarias rooted to the soil. In some way or other it is transportable, a fact that does not militate against its local origin, for both characters are presented unequivocally by yellow fever, and, though less conspicuously, by enteric. Dr. Thrupp, whose remarks were by far the most lucid and logical, expressed his belief that the true solution of the problem should be sought, and would be found in a study of the pathological and clinical relations of epidemic cholera, and the forms of disease known as cholera nostras, sporadic cholera, choleraic diarrhœa, &c. To a certain extent we agree with him, but we venture to deny, or rather we deny most positively, that there is no difference beyond that of degree between true cholera, mild or malignant, and the cases of acute, often fatal, diarrhœa observed everywhere in the months of autumn. Many of these present all the symptoms of genuine cholera—cramps, rice water evacuations, suppression of urine, and depression of temperature, but only the followers of Hahnemann, we think, would hold that a set of symptoms *per se*, however marked, constitute a disease. Scarlatina is not tonsillitis, or even tonsillitis plus erythema, though when these are present together, as we have seen them, diagnosis may be by no means easy.

Several of the speakers ridiculed the test of propagation or communication of the disease, but granting the specialty of cholera, and to deny it, is to be the question at issue, we do not deem it illogical. Scarlatina, to appeal again to analogy, may exist, as verified by its communication in an unequivocal form, almost without any of its characteristic symptoms, and the symptoms to all appearance may co-exist without the disease. The symptoms of real cholera may be induced by arsenical poisoning, as Dr. Longhurst remarked, and by an excessive dose of Epsom salts, but no one would assert that they constituted the case one of cholera. Precisely so ; the symptoms of cholera may be produced by the ordinary causes of autumnal diarrhœa in the absence of any specific poison, and the cases, however numerous, remain still personal, not epidemic. On the other hand, we have cholera without any of the palpable and characteristic symptoms, either because recovery set in at an early stage, or because the very intensity of the poison killed the patient before the symptoms had time to manifest themselves.

Whether the cause of cholera be in the air above, the earth below, or in the water under the earth, its transmissibility or transportability is evident to every one who has not a preconceived theory to maintain, but transportability is not contagion in the stricter sense of the word. It is intimately connected, as regards its origin and perpetuation with local conditions, but it is, though so far miasmatic, not endemic in the same sense as malaria which is rooted to the spot of its birth ; yet constant presence in a place is not in itself endemicity, or, as Dr. Murray humorously remarks, syphilis must be accounted endemic in London.

In the face of all these facts we are driven to accept one or other of the hypotheses advanced by Pettenkofer and Hirsch. The former believing that the poison generated outside of, and independently of, the body is carried by persons, infected or not, by clothing, merchandise, and ships, until finding circumstances favourable to its multiplication, it sets up an epidemic ; and the latter, that the poison when first eliminated from the human body, is devoid of or possesses, but feeble power of infection, for the acquisition of which a certain development or modification amid favourable conditions is requisite. The latter view is in our opinion supported by a large mass of evidence, such as the comparative immunity enjoyed by the attendants on the sick in well-conducted hospitals, but not in the confined dwellings of the poor. The severity with which the disease affects a population amid bad sanitary surroundings, and especially where the water is polluted, and on board crowded and confined emigrant and pilgrim ships, compared with its lightness when introduced when the opposite conditions, especially as regards the water, prevail—so strikingly illustrated by the successive epidemics in London. And lastly, the success attained by Dr. Burdon Sanderson, in the infection of mice with stale choleraic fæces, the virulence of which rose and declined between the second and fifth days, with the failure of all attempts at direct inoculation, although we admit that such experiments require repetition and verification.

In conclusion, we may state our belief that the apparently spontaneous outbreaks of cholera, without recent importation occurring, as all well authenticated instances have in the years immediately following epidemics, are easily explicable on the perfectly justifiable hypothesis of the poison remaining dormant in the soil ready to wake up to fresh activity on the return of the required favourable conditions of hot weather, &c., or as in Indian camping grounds, on the arrival of susceptible individuals on the infected site.

THE LASH.

It is well known that the judges differ very materially in the views they take of flogging as a punishment, and, as might be expected, these differences of opinion find expression in the sentences they inflict. The addition of flogging to a term of imprisonment, or penal servitude, in cases of robbery with violence, is in the option of the judge; and so, while some of the present occupants of the judicial Bench lose no opportunity of inflicting the cat, others never, under any circumstances, resort to it. An element of caprice, or personal idiosyncrasy, is thus introduced into the administration of justice, which is much to be regretted, and which must go far to neutralise any deterrent influence that flogging may possess. The most striking characteristic of the criminal class is their want of forethought; in nine cases out of ten, the possible consequences of any unlawful act which they may be about to commit never enter into their calculation. But flogging is intended to be a powerful appeal to their terrified imaginations; the hope being, that a vision of the triangles and the fierce-knotted cords will rise up before them when they are on the verge of a robbery, and will either drive them back, or induce them to deal tenderly with their victim. And this being so, it is clear that there should be no doubt about the certainty of the retributive cat, in case of detection, for the "vision of judgment" becomes instantly faint, distant, and ineffectual, if there is room for speculation as to the chances, should the worst come to the worst, of falling into the hands of a kind-hearted old judge, who cannot bear to think of a scored and bleeding back. Under existing circumstances, the lash does not always fall on those who most deserve it, and to whom it is likely to prove most useful; and it seems clear, that flogging should either be abolished, or inflicted with strict uniformity and impartiality on all who have, by their criminal proceedings, brought themselves within range of it.

Mr. Justice Day is certainly of that judicial section that favours the cat, and seems indeed to be ambitious to distinguish himself as a flogging judge. He has expressed his intention to order corporal correction in all cases brought before him, in which violence has been added to robbery, and certainly no exception can be taken to his exercise of those powers entrusted to him by the Legislature for the punishment of evil doers. As long as flogging is allowed, he is entitled to order it, although, perhaps, when he has had more experience as a judge than he has as yet enjoyed, he will modify his sanguine estimate of the value of this drastic remedy. But while indulging his partiality for flogging, Mr. Justice Day ought to do so in a way that is not likely to offend the public taste and create sympathy for the convict—as a sentence, such as that which he passed at Leeds on the 2nd instant, is, we fear, well calculated to do. He then ordered James Marshall, who had been convicted of robbery with violence, to be imprisoned for fifteen months, and during that time to be twice flogged; receiving each time twenty-five lashes. We have no doubt that Marshall richly deserved punishment, and had he been ordered to be flogged once for all we should not have had a word to say about his case, but the division of his corporal punishment into two lots seems to us a refinement of severity, which, although legal, is not expedient. It is to be remarked that no dates are fixed for the infliction of the floggings, which may be administered at such times as are deemed expedient by the officers of the prison, who have thus a very large discretion left in their hands as to the amount of suffering they may inflict on this man. If his floggings be administered to him promptly, and in quick succession, he will have to endure only one tithe of the anxiety and misery which will fall to his lot if one or both of them be kept hanging over his head till near the end of his term of incarceration. A prisoner has no notice of the time when he is to be flogged, until he is suddenly called out of his cell and told to strip, and it is an established fact that the mental agitation and forebodings of pain, which they suffer while awaiting flogging after having been condemned to it, has a serious effect on their health. They lose weight rapidly, and become anæmic and nervous, and thus the man who is kept for months in daily apprehension might have his health seriously and permanently impaired. We do not suspect our prison officials of cruelty or unnecessary severity, but it is an indisputable fact that the nature of their duties has a tendency towards mechanical routine and stern repression. Not much sentiment is to be found in a prison governor, and as for an old warder, he is the very type of automatic discipline, and has come to regard the miserable beings under his charge almost as his natural enemies. Such men are not likely to shrink from making punishment as sharp as possible, and it is conceivable, therefore, that a prisoner sentenced to two floggings, and left in their hands, might fare very badly. Twenty-five lashes administered, not by a drummer-boy, but a stalwart warder, who is on his metal to show to his critical colleagues around how thoroughly and scientifically he can perform his duty, is an excruciating punishment that may leave its marks on a weakly man for the rest of his days; but it is a punishment the effects of which must, in great measure, depend on the condition of its recipient. If he be in sound bodily health, its effects will be trifling to what they will be when his blood is impoverished and his nervous system unstrung. But prisoners under sentences of imprisonment for terms less than two years are very differently fed from convicts under sentence of penal servitude, and on the bare-subsistence dietary to which they are restricted they run down rapidly in constitutional vigour, even when no loss of weight marks their decline. If, therefore, a prisoner condemned, like Marshall at Leeds, to fifteen months' imprisonment be flogged at once, that infliction will have a trivial effect on his health, compared to what it will have if it be held in reserve until he has been reduced by low diet, solitary confinement, and hard labour. We confess to a strong dislike of repeated floggings, as being vindictive in their nature, and an elaboration of suffering, savouring more of the Spanish Inquisition than of an English court of justice, but if they are to be allowed, the judge ordering them ought to be required to specify the date of infliction of each flogging. If we remember aright, Lord (then Mr.) Justice Lush, the great flogging judge of the

garotting era, never ordered repeated floggings; he was content to order one immediate and sharp infliction.

The whole question of flogging in prisons deserves more attention from the public than it has hitherto received. An immense number of chastisements are administered every year in English prisons for prison offences, by order of magistrates or the directors of convict prisons. Magistrates are apt to have a leaning to the cat-o'-nine tails. Those aristocrats amongst them who have been "swished" at Eton, and the upstarts who only wish they had, are alike inclined to attach much efficacy to direct appeals *ad cutem hominis*. Dressed up in a little brief authority, it gratifies them to play such tricks as make the prisoners tremble, and so they flog, we venture to assert, oftener than is necessary for sound discipline, and in cases where the lash is not likely to do any good. We have heard of cases in which objectionable prisoners, whom medical officers have declared unfit for corporal punishment, have been put on extra diet and brought up to a point at which it was deemed feasible to submit them to such correction, which was then forthwith administered. Prisons have high walls and are conducted *in camera*. The wretched beings who pass through them, have neither the wit nor the will to complain of any harshness or severity that may have been visited on them while they were in durance vile, and if they did tell the secrets of their prison-house, it is certain that their revelations would not meet with much credence. We do not suggest that such abuses as were disclosed in "Never too late to mend," are now possible in English prisons, on the contrary, we believe that these establishments, are, as a rule, conducted in a humane and praiseworthy manner, but like all other human institutions, they are liable to lapse into evil ways, and they may indeed be regarded as having a special liability to degenerate, because they are removed to a great extent from the invigorating influence of public opinion. Most true is it, as Mr. Herbert Spencer has observed, that as regards all administrations, public and private, it is our duty to assume, not as people usually do, that things are going right until it is proved that they are going wrong, but that they are going wrong until it is proved they are going right. People are taught, and it is to be presumed believe, that the heart of man is deceitful above all things, and desperately wicked, and yet strangely enough believing this, they place implicit trust in those whom they appoint to any functions. Without taking the worst view of human nature, it must still be maintained that it will not go straight without being watched, and it is unfortunate, therefore, that prisons which are so circumstanced as to have special tendencies to diverge from the path of rectitude, should be so much removed from public vigilance. The facts just brought to light at the inquest on the body of David Ackroyd, at Hull, must awaken the public to the truth, that an appalling state of matters may exist in an institution which is supposed to be moving on smoothly enough, and must convince them that prisons cannot be safely left to the management and supervision either of magistrates or government officials. The healthy invigorating light of publicity, must somehow be made to shine in on them more than it has hitherto done. Coroner's juries cannot too strictly discharge their duties in inquiring into the treatment of prisoners who die, and the Howard Association would do well to advise the public on the question of flogging in prisons.

CLINICAL PAPERS.

No. VI.—Convulsions, "Neuromimetic" and Epileptic.

The frequent use or misuse of the term *neuromimesis* is important enough to merit a little reflection, owing to its obviously practical bearing. As introduced by its coiner, Sir James Paget, the word was rich in suggestion and irreproachable in meaning; but being now, perhaps naturally, but too often, misunderstood by the unclassical or the thoughtless practitioner, its effect on medical terminology is far from being wholly luminous. Applied as this term is to cases commonly called Hysterical, the "mimicry of disease" expressed in it is frequently attributed as a more or less conscious act to the subject of the affection, rather than to the affection itself. Hereby the pathological aspect of the malady is obscured rather than enlightened, and the perverted use of this name, good in itself, has tended frequently to cause both diagnostic error and faulty treatment by emphasizing or favouring the notion that Hysteria and Shamming are mainly identical. On the falsity of this notion it is unnecessary now to insist; though still of undue prominence in the minds of some practitioners, it is gradually and surely dying out in the light of better observation and a more rational psychology. An element of conscious shamming there may undoubtedly be in some patients who are properly called hysterical—even as there is often an element of true hysteria in the symptoms of patients suffering from structural organic disease—and this element it is often difficult to duly assess; it is true enough too that unmitigated impostors may be found in Hospital wards, as in many other less pleasant places. But it is no less true that in a large number of cases which may well be called hysterical or "neuromimetic," there is no ingredient of deception whatever. It is especially in those cases, from time to time coming before practitioners, of convulsions, chiefly in women, the nature of which it is necessary to approximately decide—whether they are epileptic or hysterical—that the danger is great of confusion of neuromimesis with the old notion of shamming in Hysteria. Leaving alone all question of the ultimate pathology of Hysteria and Epilepsy in their convulsive expressions, it may be taken for granted that while on the one hand there is often a broad clinical distinction between them, obvious, indeed, to even an unskilled observer, yet on the other hand, it is sometimes a matter of great difficulty to give a case of convulsions its right name, with due regard to the practical outcome of the opinion. Such cases as these are to be looked upon perhaps as on the border-line between Epilepsy and Hysteria, or, in other words, the fundamental pathology of the two affections may not be so very dissimilar. The question of unconsciousness and insensibility to pain seems to be the great "crux" in the matter of diagnosis here; it is, indeed, a difficult, sometimes an unanswerable, question

in the investigation of nervous disease, the evidence being mainly of what is called a subjective nature. But when the body's expression of these sensory symptoms is indefinite, it is well to avoid undue dogmatism in forming our opinion. Whenever in the mind of a practitioner the notion of malingering is implied in the diagnosis of Hysteria, the importance of bearing in mind the difficulty of these cases is very obvious: for prognosis and treatment are herein gravely involved. However subtly the cases obviously hysterical may be linked together with those which are called epileptic, these well marked cases at the opposite ends of the chain have very different clinical results, and call often for widely separate treatment.

No better example of what has been said can be given than those not altogether uncommon cases where self-inflicted wounds occur in connection with "fits." Doubtless there are plenty of recorded instances where there is good reason to believe that women, and girls especially, who have *bonâ fide* hysterical convulsions, have with or without some power of control inflicted wounds upon themselves, with or without some obvious motive. But it is important that all such cases should not be put down as "neuromimetic," with a reserve theory that the patients are shamming or desirous of becoming "interesting" or "good cases." For it is equally well known that genuine epileptics—patients who have had fits from childhood, and of whose unconsciousness during the fits there can be no reasonable doubt—have often periods in the intervals of their fits, though most often immediately succeeding them, when their actions are of the strangest kind, and when they frequently inflict injury on themselves or others. Such cases of strangeness, in varying degree and combination with obviously convulsive attacks, are known under the title of epileptic vertigo, and some may pass into "epileptic insanity." Homicide, beyond doubt, is sometimes committed in this condition: of which in all probability the apparently motiveless act of one Treadaway, who after trial was sent to Broadmoor some years ago, was a striking example. Disordered sensation is an incident in epilepsy, and well known in certain forms of insanity; and in these facts may be found the clue to the explanation of many cases of wounds self-inflicted by patients subject to fits. From neglect of due observation and thought, therefore, a case of genuine epilepsy, with the accompaniment of obviously self-inflicted wounds, may be regarded as an example of a feigned disease due to "Neuromimesis"; the perverted use of this term being intimately bound up with the faulty diagnosis. It should never be lightly concluded that people, even women, will inflict pain and disfigurement on themselves with no other morbid motive or cause than a simple desire to attract attention, though this is doubtless sometimes the case. There is nearly always something morbid to start with in the nervous constitution of an individual who thus behaves.

The bearing of these considerations is of no less importance on treatment than on diagnosis. While the epileptic convulsion, and many of its sequent phenomena, are greatly controlled by the administration of the bromides, it is, to say the least, very doubtful whether the hysterical condition is at all benefited by them. If it be indeed advisable in some extreme cases to prescribe such drugs to an hysterical patient, it is almost beyond question that in the long run her condition will be aggravated by the continuance of such treatment; while, on the other hand, to treat a genuinely epileptic patient as a neuromimetic, and possibly, by implication, as a malingerer, would be a blunder of the greatest magnitude.

Σ

REVIEWS AND NOTICES OF BOOKS.

THE LITERATURE OF THERAPEUTIC NOVELTIES.[1]

SIDE by side with the growth of scepticism in the profession as to the power of drugs to cut short or seriously modify profound disease-processes, there has arisen a widespread credulity with respect to their power of mitigating symptoms and relieving minor sufferings. The typical general practitioner and those amongst the consultants who approach him in tone of mind, are ever on the watch for what, in the absence of a better name, are commonly termed therapeutic "tips"; they are anxious to startle and compel the confidence of their patients by an undeniable proof of their skill, and they are desirous of flattering themselves into the belief that they are keeping well abreast of the science of the day, by prescribing the most recently discovered drugs. There is no portion of the medical journals so eagerly scanned as that in which the promise is held out of treating old and obstinate complaints by new methods; and in answer to a similar demand, there has arisen quite a literature of new remedies, from which we have selected a few examples for review.

It is now sixteen years since the last edition of the British Pharmacopœia appeared, and in the interval an altogether appalling number of therapeutic agents have come forward as candidates for admission into that select society, a place in which it is as difficult to obtain as it is easy to retain when once gained. Of the newer remedies some—such as salicylate of sodium, croton chloral, pilocarpine, iodoform, eucalyptol, chrysophanic acid and vaseline—will of course find an easy entrance into the forthcoming edition of the Pharmacopœia; but in the case of the countless remedies now being introduced and highly lauded by American wholesale houses, a very searching examination will be necessary before any of them are admitted. Most of them may well wait another fifteen or twenty years, by which

[1] (1.) "The Extra Pharmacopœia of Unofficial Drugs," by W. Martindale, F.C.S., and W. Wynn Westcott, M.B. London. Second Edition. London: H. K. Lewis, 1884.
(2.) "The Year-Book of Pharmacy, with the Transactions of the British Pharmaceutical Conference, for 1883." London: J. and A. Churchill, 1883.
(3.) "A Compendium of Modern Pharmacy," by W. B. Kilner, Pharmacist. Fifth Edition. London: H. Kimpton.
(4.) "The Medical Annual and Practitioner's Index," 1883-4, London: H. Kimpton.
(5.) "The Newer Materia Medica; designed and issued to the Medical Profession," by Parke, Davis, and Co., Detroit, Michigan, U.S.A.
(6.) "Klinisches Recept-Taschenbuch für praktische Aerzte." Vienna: Urban and Schwarzenberg.

time it may be expected that the large majority will have been entirely forgotten. Ever since Shakespeare's courtier lauded parmaceti as "the sovereign'st thing on earth" for an inward bruise, and even earlier, it has been the way of drugs to come in with a flourish of trumpets as specific remedies, and then to be relegated in disgust to a back shelf when their imposture was discovered. Albert Smith's lines—

> "K stands for kreosote, much overrated;
> L for the lies that about it were stated;"

could be applied to a score of remedies, and the same process will happen with hundreds more, so that the practitioner who is wise will rather trust to his old friends, and leave the new candidates for his favour alone until they have been tried and have succeeded in the hands of more adventurous therapeutists.

For those, however, who are anxious to help in the testing process—in which case they should make up their minds to keep careful records of their successes and failures, especially the latter, and to publish them with a view to economy of labour—there is provided a literature from which they can gain what they want without the trouble of turning over volumes of medical periodicals. The best specimen of this literature that has come into our hands is Martindale and Westcott's "Extra-Pharmacopœia," the first edition of which appeared last summer, and was exhausted in a few weeks. It has evidently been compiled with great care, the references to contemporary English medical literature are singularly complete, and the pharmaceutical part is well done. The remarks on the comparative merits of the vaseline class, and on the art and science of pill-making are especially worth reading. For the "tip"-hunter there is added a list of diseases with appropriate remedies, and the practitioner's only difficulty will be to select from the crowd of drugs the one which he deems most worthy of his confidence, or rather, least worthy of his distrust. We are sorry to see that here and there the book shows a taint of the homœopathic heresy—v. *Anthoxanthum*, but in this it only follows the bad example set by certain more ambitious treatises.

"The Year-Book of Pharmacy," which is not so well known to the profession as it deserves, still keeps up its high reputation as the best annual summary of progress in materia medica and pharmaceutical chemistry. It is true that the profession has less reason now than it once had to busy itself with pure pharmacy; but if it be true, as Prof. Attfield stated in his address to the Pharmaceutical Conference, that one effect of the hard times of the last ten years has been to increase the proportion of medical practitioners who dispense their own medicines, the time has not quite come for the devolution of the whole science of pharmacy to the druggists. There are many medical men in the country who would find the "Year-Book of Pharmacy" a very useful companion; while the lecturer in therapeutics and materia medica would gather much necessary information from its pages. One of its most useful features is very complete bibliography.

Kilner's "Modern Pharmacy," an American production, is written chiefly for the use of the pharmaceutical chemist, but the author informs us that it has also been his aim "to place before the busy practitioner information which can alone be found in the private working formulæ of the practical chemist, or in the huge costly volumes of authors whose prolific (*sic*) pages one has to hunt through, in order to arrive at the knowledge of which they profess to be the vehicles." The book contains many hundred formulæ, not only for drugs, but for toilet requisites, fly poisons, incense powders and other nostrums, which the respectable practitioner is not usually called upon either to prescribe or dispense. It also professes to give the formulæ of all the better-known patent and secret medicines. As for any hints for treatment that it contains, it does not pretend to meet other demands than those of the counter prescriber.

The "Medical Annual," we must confess, is rather out of place in the present company. Its aim, apparently, is to be a medical "Whitaker," and if it had been more carefully compiled it would serve a more or less valuable purpose. It contains much information that will be found of use to the practitioner, notably a gazetteer of health resorts and of the more important towns in the United Kingdom. A large portion of the volume is taken up with "brief notes of the principal facts and hints which have appeared in the medical journals during the year," and with particulars of new remedies. The former section is a fairly good *resumé* of the therapeutical work of the year, and professes to have been compiled from a very long list of British and foreign journals. It will, no doubt, be appreciated by the hard-worked practitioner who has little time to study the literature of his profession. Unfortunately it teems with printer's errors.

Under the pretentious title of the "Newer Materia Medica," Messrs. Parke, Davis and Co., have issued a wonderfully elaborate volume, in which seventeen of the newest remedies are exhaustively described and illustrated, with copious extracts from medical literature as to their therapeutic properties. It is a curious commentary on the drug-loving nature of humanity, that it should be worth the while and within the means of a wholesale house to issue such a costly circular. The drugs treated have all a certain claim to consideration, and most of them appear to have been tried very conscientiously, if we may judge from the number of diseases in which their results are described. It goes without saying that several of them are declared to be useful in dysmenorrhæa.

The "Klinisches Recept-Taschenbuch" is a little volume with which we have been familiar for some years, and we have not seen a very recent edition of it. It does not profess, however, to have anything to do with the newer remedies, but under each disease gives an outline of the accepted treatment, and a short list of the formulæ which have been found useful in it. It is the last book that we should place in the hands of the student; but by the practitioner, familiar with the rational treatment of disease, it will sometimes be found a valuable help in refreshing the memory; and the seeker after "tips" might do worse than consult it. For our own part, we chiefly value it as a means of comparing the treatment of different diseases which prevails in Vienna with that in vogue amongst ourselves.

The Encyclopædic Dictionary; with numerous illustrations. Part I. London: Cassell and Company.—This important literary undertaking of Messrs. Cassell, the first monthly shilling part of which has just appeared, has been so fully and so favourably noticed in the daily press, that only a brief criticism, dealing exclusively with the medical aspect of the work, is necessary here. We have discovered no very important omissions, and it must be admitted that the compilers have shown a very sound judgment in the medical classics chosen to illustrate the meaning of terms. In medical language the change in the exact connotation of words is often so rapid that we should be glad to have seen less use made of Todd and Bowman's "Physiology," which has long been out of date. We have noticed several instances of inaccuracy and careless revision, and we shall probably do the publishers better service by pointing out a few of these than by further expressions of eulogy. Under "Abduction," the quotation from Todd and Bowman refers to the second specific or physiological meaning, and not to the surgical meaning, under which it has inadvertently been placed. The definition of "abductor" as "a muscle which pulls back any part of the frame" is clearly incorrect. The reference to Lord Herbert, of Cherbury, as an authority for the use of the verb "to abort" in the sense of to miscarry is misleading—such use of the word being not at all uncommon in the present day. No medical meaning is given under the word "abrasion," though the schoolmaster, whose examination paper recently created so much merriment, expected to find boys of twelve familiar with such a use of the term. The definition of a diffused abscess as one due to contamination in the blood, is misleading. No medical meaning of the verb "to absorb" is given, though it is constantly used in this sense. "Absorption" by organised bodies is described as "imbibing material suitable for their nourishment," a definition which entirely overlooks the absorption of *poisonous* material, which plays such an important part in the production of disease. Under "Acarus" no mention is made of the itch-insect; and *Achorion Schœnleinii* (*sic*), which occurs a few pages later, shows signs of careless revision. Under "Acetone" it should have been noted that this substance is sometimes found in the blood, even if it were decided that the word "acetonæmia" is too technical for admission into the dictionary. It is curious that no reference is made to the use of the word "acidity" as a dyspeptic symptom, though there is not a single medical word more loved by the laity, and a few columns further on, "Acor," a word we never heard used before, is defined as acidity or sourness in the stomach. *Cochlearia amaracea*, it may be noted, is not the botanical name of the horseradish, and "having the form of a gland" does not convey an accurate notion of the medical use of the word "adenoid." These few examples will, we think, suffice to show that if the encyclopædic dictionary is to merit the confidence of the medical profession, its future parts must be submitted to a more careful and less antiquated revision.

The History of the Year, from October 1, 1882, to September, 30, 1883. London: Cassell and Co., 1883.—This is the second year that this useful summary has appeared, and it still continues to deserve credit for accuracy and readableness. The volume does not contain any account of the medical history of the year, but we are not sure that it is the worse for that. Medical men always know where to go for that, and wise laymen avoid it. The obituary of eminent medical men who had died during the year is concisely and accurately given. One error we have noticed in the section on Egyptian affairs: the first cases of cholera at Damietta appeared on June 22, 1883, and not on June 26, as stated. Those who have had to do with the investigation of this outbreak know that this is not such an unimportant inaccuracy as it may seem.

The Royal Society.—Five eminent foreigners have been elected foreign members, namely, Prof. Anton de Bary, Prof. Carl Gegenbaur, Prof. Leopold Kronecker, Prof. Rudolph Virchow, and Prof. Gustav Wiedemann.

ABSTRACTS AND EXTRACTS.

THE PRESS ON THE VIVISECTION VOTE AT OXFORD.

The *Times* in an article on the recent vote in Convocation at Oxford, declares that all those who are open to argument have been long ago convinced that science cannot proceed on her beneficent way without the aid of experiments, some of which must be painful. Parliament, on the recommendation of one of the strongest Royal Commissions ever appointed, has legislated in the matter, and physiological experiment is now under limitations as severe as it is possible for it to be consistently with any kind of progress in discovery. Abuses are of the rarest occurrence. It is to be hoped that the sensible action of Convocation will not only encourage the Waynflete Professor to proceed as his scientific conscience may guide him, but will convince the well-meaning but irrational opponents of scientific freedom that further action on their part would be not only vexatious, but unsuccessful.

The *Observer* is glad to see that the attempt to impose insulting restrictions on the work of the new professor of physiology at Oxford, has ignominiously failed, notwithstanding the strong whip made by the obstructive party. Referring to Mr. Freeman's argument, it says "Demonstration of known truths is one thing, and discovery of new facts another, and unless Mr. Freeman believes that after letting Retiarius and Secutor perform in the Sheldonian, we might possibly find the lost books of Livy on the floor, there is no conceivable analogy between the two cases."

The writer of an article communicated to the *Guardian* says, "When there is a question, as it seems there will be at Oxford, of putting young men in the way of, and accustoming them to, the practice of inflicting what may be needless pain; when, moreover, it is a question of doing this under the official sanction of the University, in buildings provided by and under a teacher paid by her; and when further the University, as such, has not previously had an opportunity of pronouncing fairly upon the question whether vivisection shall or shall not be tolerated in her schools, it seems to us that those who have promoted the opposition to the proposed expenditure of University funds on such purpose, have acted strictly within their reasonable rights."

The *Spectator* thinks that the issue was one of the most momentous moral issues of the day, and describes the vote as a disaster and a calamity, by which the University has sanctioned the inhuman principle that there is no limit to the anguish which a properly trained physiologist has the right to inflict for what he considers a sufficient object.

Truth says that on the merits of the case there can be no sort of doubt. It would have been monstrous to have elected Dr. Sanderson to the professorship and then to have withheld the money for his laboratory; and as to the objections of the anti-vivisectionists, why is the law of the land insufficient at Oxford.

The *St. James's Gazette* says that the vote is regarded by the scientific party as a victory for "science," and it, at any rate, may be considered a victory for common sense.

The *Pall Mall Gazette* thinks that the Oxford University is to be congratulated on the result of the division, and that Mr. Nicholson and his friends would do well after so decisive a vote, to abandon any further opposition to the establishment of a real school of physiological research at Oxford.

Nature describes the scene in the Sheldonian Theatre as the most exciting that has been enacted in the University since the opposition to Dean Stanley as select preacher. The result was received with enthusiasm, and Oxford is to be congratulated on it.

The *Lancet* thinks that Dr. Acland, by his letter in the *Times*, and by his action in the recent debate in Convocation, has laid the whole scientific world under obligation, and has effectually foiled the attempt to place Oxford in a false position in relation to biological science. The vote of Convocation is the just reward of the stand made by him.

The *British Medical Journal* says that the result is a complete answer to those who have frequently stated that the narrow majority would in any subsequent occasion be turned into a minority.

MEDICINE.

Sudden Death due to Hæmorrhage from the Hepatic Vein.—The *Boston Med. and Surg. Journ.* for Dec. 20, 1883, contains a report by Dr. Alf. F. Holt, of a case in which death appears to have been brought about in an unusual manner. The patient was a large and strongly-built Englishman, æt. 56. Ten or twelve years before his death he began to have severe attacks of colic, which continued to trouble him throughout his life at irregular intervals. For the last six or seven years he had never been quite well, suffering from what had been variously diagnosed as "gall-stones," "dyspepsia," and "obscure liver-disease." Seven days before his death he was suddenly prostrated, while at business, by severe abdominal pain, nausea, vomiting, and faintness; in the evening he vomited rather more than three pints of blood. The pain and sickness, though somewhat relieved by treatment, continued for another three days, when he was again seized with an attack of vomiting, blood, as before, being ejected in the form of very large clots. When nearly two quarts (*sic*) of blood had been ejected, the vomiting suddenly ceased; pain also ceased in about two hours' time, but the patient did not rally, and died in about forty-eight hours, or a little less than seven days from the beginning of the sickness. No blood was at any time passed *per anum*. The most noteworthy points revealed at the necropsy, made twenty-three hours after death, were as follows:—All the tissues contained but little blood; the pericardium was normal, but, on opening it, the right auricle and ventricle were seen to be remarkably distended, and were elastic to the touch; on incising them, a puff of gas escaped, and their walls immediately collapsed. The left heart was empty and contracted: all the valves were quite healthy. The large and flabby stomach contained about a pint of liquid food; it, as well as parts of the transverse colon, was firmly adherent to the lower border of the liver. The pylorus was patulous, readily admitting the thumb. The duodenum was empty: the papilla marking the opening of the common bile-duct into the gut, was prominent, as large as the end of the finger, and its orifice readily admitted a lead pencil. Just within the opening of the duct lay a gall-stone. The duct increased in calibre as it approached the liver, until it and the hepatic duct were dilated into a sac of about two ounces' capacity. The walls of this pouch were very thick and indurated, and there was a deposit of dense tissue round them. At the lower side of this sac, near the orifice of the gall-bladder, was a cup-shaped depression the size of half a chestnut; its floor and sides presented the shreddy surface indicative of recent ulceration. On the upper wall of this dilated duct, and immediately opposite where the blood vessels entered the left lobe of the liver, was a similar spot of ulceration, somewhat larger and irregular in outline: a little blood was observed to flow from the bottom of this depression, and here was found an opening communicating directly with one of the vessels entering the left lobe of the liver—the tissues in the vicinity were much matted, but it seems to have been established that this ulcerated vessel was a branch of the hepatic vein. The walls of the gall-bladder were much thickened; its mucous surface had wholly lost its normal honeycombed appearance: the opening between it and the dilated duct readily admitted the finger. Both the gall-bladder and the duct when opened contained a little bloody fluid. The right lobe of the liver was smooth and glistening, rather enlarged and slightly fatty. The left lobe presented a remarkable appearance. It was firm and smooth—not glistening; and its colour, on the surface and in section, was of an uniform greenish-brown slate hue. All appearance of structure was gone: it could be easily broken with the fingers, and the fractured surfaces had much the appearance of a nearly dried mass of mud treated in the same way. The larger blood-vessels were distinguishable: they were filled with a dryish brown-red material, which crumbled easily in the hand into a coarsely granular mass. The intestinal canal was nearly empty, containing only a little semi-fluid yellow fæcal matter: nowhere in this tube was there anything which looked like blood. The source of the hæmorrhage was doubtless the ulcerated blood-vessel supplying the left lobe of the liver—the blood readily finding its way through the dilated duct into the duodenum, and thence, through the patent pylorus, into the stomach. It is remarkable that all the blood appears to have taken this course, none of it passing down the bowel. The gas accumulating in the intestinal canal after death would seem to have made its way, by means of the same open vessel, to the right side of the heart. The peculiar condition of the left lobe of the liver is believed to have been caused by the complete shutting off of its blood supply, producing a necrosis of the part. Hæmatemesis, with the blood coming from such a source, must be exceedingly rare, and the case is probably unique.

Spurious Systematic Sclerosis of the Spinal Cord.—Under this title M.M. Ballet and Minor publish an interesting case in the January number of the *Archives de Neurologie* with a tolerably exhaustive commentary upon the intimate nature of the pathological changes discovered therein. The patient in question was a married woman, æt. 42, in whose antecedents syphilis was probable, though not proved. Her nerve disorder betrayed itself first by lightning pains in the legs, then amblyopia leading to complete amaurosis, and headache, but no vomiting. Three years later, weakness of the right arm was complained of, the legs became affected shortly afterwards. On examination there was some rigidity of all the limbs, and exaggeration of the so-called tendon-reflexes. After death, throughout the greater portion of the cord, there was found an extensive sclerosis of the lateral and posterior columns of the cord, and the object of the authors in their present communication is to show that these changes in the cord were not the same as those of ordinary systematic myelitis. In the posterior region for instance, although there was an ascending myelitis in the columns of Goll, reaching to the cervical region, still the affection of the columns of Burdach, or posterior radicular fasciculi of Kölliker, was chiefly in the dorsal region, and not, as in ordinary locomotor ataxy, chiefly in the lumbar enlargement. In the lateral columns the evidence against any ordinary systematic myelitis was still more clear for the process started in the pia mater, and spread inwards, affecting both the direct cerebellar and the pyramidal tracts, and disregarding the physiological barrier which separates them. As further evidence in the same direction, the authors point to the absence of any affection of the columns of Türck and corresponding regions of the anterior cornua, as is usually the case when the pyramidal tract is diseased. The atrophy of the optic nerves was similar to that often seen in cases of ataxy. Cases of combined sclerosis of the lateral and posterior columns of the cord have been occasionally recorded, and the authors divide them into five types, mostly mixed, *i.e.*, a combination of diffuse and systematic sclerosis. The prominent microscopical character of the latter form of disease, is the enormous increase of connective tissue and disappearance of the nerve tubes. In the case under consideration the nerve tubes were present in considerable numbers, and were mostly considerably increased in size, in some, the axis-cylinder was absent, in others it was swollen and varicose. The connective tissue corpuscles were increased in number and size. The walls and sheaths of the vessels were found to be infiltrated with nuclei and leucocytes, and the authors regard this as the initial lesion. They consider that there are two distinct modes of origin for sclerosis, and it may accordingly be perivascular or peritubular, though the former in time leads to the latter. The paper concludes with some considerations upon the symptoms resulting from a combined sclerosis of two or more different systems in the cord, they will of course depend upon the level of the cord at which the disease occurs.

Acute Myelitis due to Syphilis.—Chronic diffuse myelitis has long been generally recognised as often due to syphilis, and latterly we have been taught to accept certain forms of acute cerebral disease associated with arteritis as owning a similar cause, and we are now called upon to admit the importance of syphilis in the ætiology of acute myelitis. In support of this proposition, M. Déjerine has recently published an account of two cases (*vide Revue de Médecine*, January, 1884). In the first, the patient was a man, æt. 57, in whom symptoms of acute myelitis affecting the lumbo-

dorsal region appeared thirteen months after primary syphilis had been contracted. There was absolute loss of power and sensation in the legs, with incontinence of urine and fæces, the paralysis was quite flaccid and the skin reflexes were abolished. Ulcers formed on the abdomen from blisters produced by a poultice, and bedsores appeared on the sacrum and heels, the patient died from pulmonary troubles, four weeks after the commencement of the paralysis. In the second case, the patient was a man, æt. 38, in whom the symptoms of central myelitis came on a year after primary syphilis, there was absolute loss of motion in the legs, and the skin and patellar reflexes were abolished, there was complete loss of sensation in the legs, and paralysis of the bladder and rectum, the disease ran a more rapid course than in the other patient, and death occurred on the eighth day. The changes found in the nerve centres in these two cases were very similar, and may be said to have consisted of an acute central myelitis, in the lumbo-dorsal region, in the second case the changes being more limited to the grey matter than in the first case; the affection was both parenchymatous and interstitial, attacking the vessels, nerve-cells and fibres and neuroglia, in the first case there was much more evidence than in the second of an ascending and descending secondary myelitis. In both cases there was marked parenchymatous neuritis of the anterior roots, but the posterior roots were healthy. The lesions found in these two cases had no distinctive characters, and differed in no respect from those found in ordinary acute myelitis. This is fully admitted by M. Déjerine, and he points out that the unaided eye can generally determine the ætiology of a case with greater accuracy than is gained by means of the microscope. When dealing with any spinal affection clinically, the all-important thing to know is how the disease will terminate, whether the patient will die, recover completely, or remain paralysed, and the answer to this question can only be given by statistics. Against the syphilitic origin of acute myelitis, it has been urged that it is a rare sequela of syphilis; this, says M. Déjerine, is very true; but then it is also true that acute myelitis itself is decidedly rare, and judging from the cases hitherto recorded, syphilis is the only infectious disorder met with at all frequently in acute central myelitis, and when this latter occurs at a date not remote from the period of infection, it is impossible to avoid seeing in such an occurrence a spinal localisation of syphilis, and the conclusion is forced upon one that acute central myelitis due to syphilis is a reality.

Is Hydrophobia a Specific Disease?—The *New York Medical Journal* for December 29, 1883, publishes a paper, read by Dr. C. W. Dulles, before the Philadelphia College of Physicians, entitled "*Criticisms on the Specific Theory of Hydrophobia.*" The paper is one which scarcely admits of condensation, but the main points brought forward by the author are—the various and contradictory theories which are and have been advanced as to the nature of the malady; the conflict of opinion amongst past and present authorities as to its mode of communication; the equally contradictory and uncertain methods of treatment—which vary from throwing into a fish-pond (Celsus) to the inhalation of oxygen (Schmidt and Zebeden), with an almost universally unsatisfactory result; the various, varied, and mutually-contradictory views which are held as to its incubation period, its pathology, and the lesions which have been demonstrated in the course of *post-mortem* examinations—the same morbid appearances which were present in cases of hydrophobia having been noted in cases of purpura, diabetes, fracture of the skull, erysipelas, head injury with hæmatoma, concussion of the brain with fracture of the spine, delirium tremens, peritonitis, tubercular meningitis, mental deficiency and excitement, tetanus, uræmia, enteric and intermittent fevers, phosphorus poisoning, and—some of them—even in the brains of healthy dogs (Czorkov); and, especially, the unsatisfactory manner in which the whole subject has been treated—the way in which—the existence of rabies being suggested—facts are wrested, statements received as facts, and gaps in the evidence filled up by supposition, in order to support the diagnosis already assumed—*e.g.*, the madness of the suspected dog (or, where a bite is not remembered, the madness of a hypothetical dog which is supposed to have inflicted a forgotten injury), being often, if not usually, deduced from the diagnosis of hydrophobia in the man. As the result of his examination of the cases he has watched, and of the evidence upon which the commonly received theory of hydrophobia is supposed to rest, the author comes to the twofold conclusion that (1) "Hydrophobia is not a specific, inoculable disease, derived from the bite of a similarly affected animal. (2) If we wish to have an accurate, scientific knowledge of what too often actually takes place and is usually called hydrophobia, we must begin its study unprejudiced by the view hitherto generally entertained in regard to it, and with canons of criticism very different from those heretofore deemed sufficient."

Rupture of the Vermiform Process.—M. Polaillon, surgeon of the La Pitié, communicated to the Society of Medicine of Paris (*Union Méd.*, January 3), an interesting case of rupture of the ileo-cœcal appendix during an effort. A washerwoman, 19 years of age, and in the enjoyment of perfect health, while trying to lift a large bundle of linen, was seized with a sudden pain in the abdomen, accompanied by the sensation of something bursting. The pain kept increasing, together with great tenderness in the abdomen, especially on the right iliac fossa. Symptoms of intestinal obstruction appeared, and as no relief was obtained by the measures adopted, the patient was brought to La Pitié on the seventh day after the commencement of the symptoms. By this time her situation had become very desperate, and an incision was made in the left inguinal region, in order to search for the seat of obstruction. A discharge of fetid sero-purulent fluid announced that the intestine was already perforated, and that purulent peritonitis existed. Further exploration was not pursued, and an artificial anus was formed. The patient died ten hours after the operation, and abundant adhesions and suppuration were found at the autopsy. The vermiform appendix, in an inflamed condition, was found adherent at the upper aperture of the pelvis, and near its free extremity was an oval ulceration, in the centre of which was a rounded perforation; and a little distance above the ulceration a raw bean was found obstructing the calibre of the appendix, but moveable towards the cœcum. M. Polaillon observes that the case is remarkable as an instance of the rupture of the appendix by a mere effort, without any precursory signs, the subject being quite well at the time. Still, even in the absence of symptoms, it is evident that the foreign body had effected such a change on the coats of the appendix as to diminish their power of resistance and prepare the way for a rupture. The case also shows that peritonitis may give rise to the three symptoms, gaseous distension of the abdomen, fœcal vomiting, and the absence of the emission of gas *per anum*, the union of which generally indicates intestinal obstruction. The error in diagnosis, however, is more apparent than real, for the adhesions arising from peritonitis may readily cause obstruction of the intestinal canal.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, February 8th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

Mr. Pearce Gould related the history of a case of

Spreading and Obliterative Arteritis,

the patient being shown. It occurred in a lad, aged nineteen, in whose family and personal history there was nothing to throw light upon the cause of the disease. The illness began in May, 1883, when the man noticed the fingers of his right hand becoming dark in colour; when warm the hand was of a deep red colour; when cold it became first blue, and then dead white, and there was then a sickening pain

in it. After three weeks he rested from his work (in a brick-yard) for three weeks; but, again, after working for a month, the hand became worse, and he had to rest for a month. He then thought himself well, but, on resuming work, "the pain went" into his forearm and elbow, and since then he had been unable to work. He was admitted into the London Temperance Hospital, on October 31st. The right forearm and hand were colder than the left—somewhat wasted; while the hand was warm he could wash with it, and it quickly became cold and painful; the pain was always worse at night. The brachial artery in its whole course was harder than the left, and less affected by the pulse, which ceased in it just above the elbow joint. The radial artery was felt as a prominent, hard, pulseless cord; there was no pulse in the ulnar artery. The other arteries of the body appeared normal. There was a small patch of dry gangrene on the tips of each of the first, third, and fourth digits. Heart, normal; accentuation of second sound over aortic cartilage. Urine, normal; temperature, normal. For about a fortnight there was no notable change, but then the pain increased, first at night, and then by day, until it became so severe that the patient writhed in agony, which was only partially subdued by repeated hypodermic injections of morphia and draughts of chloral and bromide of potassium. Concurrently with this, the pulse in the brachial artery faded away, until the vessel formed a hard, pulseless cord as high as one inch below the teres major tendon. On November 23rd the right subclavian artery was noticed to be very prominent above the clavicle, and the heart's action was excited. In December the pain lessened, and by December 17th was but slight, while the prominence of the subclavian artery was diminished. Now he is quite free from pain, and expresses himself as quite well. Nearly the whole of the last joints of the thumb and of the right ring finger have mummified, and are nearly detached. The limb is considerably wasted: the radial artery has so shrunk as to be scarcely perceptible, but is quite pulseless; the brachial artery is still felt as a firm pulseless cord to within an inch of its origin. Mr. Gould stated that at no time had there been any œdema of the part, or any loss of sensation, the only paræsthesia being intense pain, particularly complained of in the parts which afterwards became gangrenous. The temperature was normal on the patient's admission to hospital, but on November 26th, was found to be pyrexial, and it continued so, ranging between 99° and 101°, until December 18th, when it finally returned to the normal; on one occasion the temperature rose to 101·8°. Mr. Gould remarked that the history and progress of the case plainly indicated that the disease was a progressive obliteration of the arteries of the right upper limb, probably starting in the hand and spreading almost up to the axilla. There was no source of embolism discoverable, and the slow progression, the marked induration of the vessels before pulsation was lost, was sufficient to exclude simple thrombosis, especially in the arteries of the upper limb of a lad of this age. He believed that the disease was a primary inflammation of the arterial coats—arteritis obliterans—such as that described by Friedlander, and had been examined very carefully in one case by Winiwarter. Jaesch and others had reported similar cases, and the disease strongly resembled that described by Heubner in the cerebral arteries in syphilis. The present case, however, was especially noteworthy as occurring at an earlier age than any before recorded, and affecting the upper rather than the lower limb. There was no history or evidence of syphilis in his patient, and Mr. Gould was unable to fasten on the cause of the affection. It was important to notice the very small amount of gangrene that resulted from so extensive an obliteration of the main arteries of the part.

Dr. W. B. Hadden detailed a case of

Obliterative Arteritis.

An unmarried woman, aged 35, was admitted, under Dr. Bristowe, at St. Thomas's Hospital, on February 22nd, 1882. There was nothing of importance in the family history and no reason to suspect syphilis. The patient had been accustomed to sleep with an invalid child, and her arm, which was placed around the child, used to hang outside the bedclothes. Six months before admission she had severe pain in the right arm, shooting down the hand; and two months before admission the tips of the first and second fingers were hard and cracked. On admission, she was a healthy, well-nourished woman, without any visceral disease. She complained of constant pain, but occasionally shooting, in the thumb and first and second fingers of the right hand. The fingers were pale and cold, and on the tip of each there was a flat irregular corn. The thumb was pale, cold, and stiff, and top was hard and thick. There was no pulsation in the radial and ulnar, and the former was hard and tender. Pulsation was felt in the arteries at the bend of the elbow. Subsequently, pulsation could not be felt in the lower part of the axillary, and there was tenderness along the whole brachial. The hand and arm became very cold, and the fingers livid. Surface temperatures were taken, and it was found that the right upper extremity was much colder than the left. Later, the tenderness in the course of the arteries became more excessive, and the absence of pulsation extended higher into the axillary artery. The skin over the ends of the thumb and first three fingers became gangrenous, and was separated. Finally, pulsation returned in the brachial as far as the end of the elbow. Six months later the patient wrote to say that she was quite well, but that there was no pulse at the wrist. Prolonged pressure on the arteries seemed to be the exciting cause, just as it is sometimes in the case of a nerve. The favourable termination, as in paralysis, is worthy of note.

Dr. Mahomed observed that the further progress of such a case as Mr. Gould's should be closely watched, and mentioned a case which he had himself published in the *Medical Times and Gazette* ten years ago, in which a progressive arteritis in the subclavian artery had been accompanied by attacks of angina. The *post-mortem* examination had shown that the disease had progressed along the great arterial trunks, and finally invaded the coronary arteries of the heart. He thought it not impossible that a similar train of events might follow in Mr. Gould's case.

Mr. Bryant would like to ask a question of the authors of the two papers, with respect to the origin of arteritis, a condition fully recognised in itself, but of which the causes were less well known. Might there not have been thrombosis in Mr. Gould's case, setting up subsequent arteritis? With respect to the bony prominence in the neck, he would suggest the possibility of its being an extra rib, and, further, that the artery, from having been pressed against it, might have sustained some injury. In Dr. Hadden's case also, there was localised pressure, which would be much more liable to produce thrombosis than arteritis. He instanced the familiar treatment of aneurism by local pressure as an example of this.

Mr. Harrison Cripps remarked that the diagnosis in Mr. Gould's case appeared to have been arrived at rather by a process of exclusion of other causes of obliteration, than by any very definite evidence of arteritis. He did not think that the present condition of the vessels could be truly attributed to arteritis proper. Having examined the case carefully, he was inclined to think that the prominent mass in the neck had pushed forward the subclavian

artery, gradually diminishing the circulation, and giving rise to clotting, as in the pressure treatment of aneurism. Though arteritis was a rare occurrence at so early an age, there were cases on record of exostosis in even younger persons. He related the particulars of the case of a young man, aged 21, in whom an exostosis had given rise to pressure upon the subclavian artery.

Mr. JONATHAN HUTCHINSON, after some remarks complimentary to the authors of the papers, mentioned a series of three cases of arteritis, in all of which, however, there had probably been antecedent atheroma. In one case, complicated with syphilis, there had been gangrene of the ends of some of the fingers, attributed to arteritis, and accompanied by severe pain. In the second case, pain and redness of tortuous temporal arteries, due probably to the pressure of the hat, had been followed by recovery, with obliteration of the vessels. There was no syphilitic taint in the case, but there were probably some senile changes in the vessels. The third case, which more nearly resembled Mr. Gould's, was that of progressive ascending arteritis, following a slight burn, and rendering amputation at the shoulder joint necessary. The arteries when subsequently examined, were found to be filled with clot, completely plugging them from end to end. In the opposite arm the vessels were tortuous, but not calcareous. He considered that in the present case, either arteritis or periarteritis had caused swelling of the coats of the vessels and thrombosis. He agreed with Mr. Cripps in questioning the purely arteritic causation of the obliteration. We ought to keep our minds clear upon the subject of arteritis, especially as to the absolute cause of it. Assuming that the local pressure was the cause of the mischief, it was interesting to note that the subsequent changes had begun peripherally, and not locally.

Dr. ANGEL MONEY had recently had the opportunity of examining the spinal cord in a case of lead paralysis, and had been struck with the marked changes present in the vessels. He suggested the possibility of lead-poisoning as a factor in the production of arteritis.

Mr. J. H. MORGAN explained that the case described by him, and quoted by Mr. Gould, was probably one of periarteritis. The man, aged 60, had suffered from syphilis. The vessels had become affected one at a time, the inflammation passing gradually down, with local pain. The vessels of the arm, neck, and leg, were attacked in turn, but no obliteration of their lumen had taken place at any time, and they differed thus from the vessels in Mr. Gould's case. In the latter, he thought that the arteritis was open to question, especially as he understood that the gangrene had preceded the pain; which might have been due to pressure upon a nerve trunk, as well as upon the artery.

Mr. PEARCE GOULD, in reply, observed that the discussion had turned chiefly upon the nature of the case. With respect to the pain, it had undoubtedly preceded the gangrene. While adhering to his belief that the process had been essentially arteritic, he did not mean to assert that there had been no thrombosis. The bony mass in the neck, he believed to be symmetrical, since there was another swelling upon the opposite side of almost the same size. He was at a loss to understand how pressure upon a main arterial trunk could cause peripheral clotting. The subclavian artery, in his case, had at first appeared to be normal, but there had subsequently been marked bulging of the vessel forwards, and afterwards a gradual recession to its former position. His case differed essentially from those of the elderly patients which had been mentioned. He remarked on the expansion of the vessel and the hypertrophy of the heart, which had been overlooked in the discussion.

Dr. HADDEN replied briefly.

Dr. BURNEY YEO read a case of

Pyrexial Syphilis.

This case was admitted into King's College Hospital on October 10th, 1883, with symptoms of pyrexia—high temperature, with great diurnal fluctuations, twice reaching 105° F., and four times 104° F., and averaging in the evening for three weeks from 103° to 104°. The daily oscillations were often more than 6° F. The other symptoms were pains in the limbs and trunk, headache, thirst, sleeplessness, great debility, and rapid emaciation. Between a fortnight and three weeks after his admission symptoms appeared, chiefly on the back and legs, resembling imperfectly developed variolous pustules without the areola. Considerable doubt as to the nature of the case was at first felt, but after he had been in the hospital three weeks he confessed to one of Dr. Yeo's clerks that he had venereal sores on the penis. Anti-syphilitic treatment was attended by a rapid fall of temperature to normal, rapid improvement of nutrition, and recovery of strength, and rapid drying up of the pustular eruptions. He left the hospital on December 20th, having been for some time quite free from symptoms of any kind. The chief peculiarities of this case were—1. The great and continued elevation of temperature, and its great daily oscillations. 2. The early appearance of the pyrexia, within 25 to 30 days of the exposure to infection. 3. The absence of any definite relation between the temperature and the eruption, which was not fully developed till three or four weeks after the onset of fever. 4. The occurrence of profound constitutional affection without any noticeable induration about the local sores. Dr. Yeo, in conclusion, called attention to the opinions expressed by Sir William Gull, Sir James Paget, Mr. Hutchinson, and others, in the debate on syphilis at the Pathological Society, and referred to Güntz's observations on the pyrexia of syphilis. He also pointed out the important pathological analogies and practical suggestions to which a case like this gave rise.

Dr. MACLAGAN observed that the idea that syphilis is really a pyrexia, is gradually gaining ground, but there are very few cases on record which illustrate the theory so clearly as the present. He commented upon some of the doubtful points in the case, especially upon the vesicular nature of the rash, which is in itself very rare, and is even denied by some authors. Regarding the fever alone, it certainly resembled some of the anomalous forms of typhoid, and he suggested the possibility that the fever itself might have some such origin, or be due to a blood-poisoning; the syphilis being accidental.

The PRESIDENT was quite sure that vesicular rashes do occur in syphilis. He had himself seen cases with rise of temperature and abundant vesicular eruption.

Mr. JONATHAN HUTCHINSON thought there could be no doubt about the syphilitic pyrexia, having experience himself of many similar cases. Possibly, the fever had sometimes passed unobserved, owing to the less elaborate clinical observations in surgical than in medical wards. With regard to the eruption, he thought that it would be no more incorrect to speak of varioloid syphilis, than of syphilitic psoriasis. The form of the rash was sometimes so exactly similar that cases were not infrequently sent into small-pox hospitals. He mentioned a case in private practice in which the most elaborate precautions had been taken to isolate a case of supposed variola, which, however, had only improved under the usual specific treatment. Possibly, the highest temperatures were co-existent with the most abundant rashes. In the present case, the absolute date of contagion could not be fixed with certainty.

Dr. BURNEY YEO mentioned that the blood and the secretions from the sores had been examined by Mr. Watson Cheyne, but no specific organisms had been found.

Dr. DUCKWORTH had seen several cases of syphilitic fever, and chiefly in women. Rapid recovery had generally taken place under the usual treatment.

Mr. MORRANT BAKER suggested the possibility that the diagnosis of syphilis might be open to question, since the sores on the penis were not hard, the glands in the neighbourhood had not been enlarged, and the nature of the rash had not at once suggested itself to Dr. Yeo.

Dr. COUPLAND enquired whether there had been anything in the condition of the sores on the penis, which might have given rise to septic infection.

Dr. TONGE-SMITH referred to a case admitted into the London Fever Hospital, with rash and temperature fluctuating between 103° and 98°, in which enlarged glands and loss of hair had suggested anti-syphilitic treatment, under which a rapid recovery took place.

Mr. STRUGNELL mentioned a similar occurrence at a small-pox hospital.

Dr. BURNEY YEO, in reply, observed that the temperature chart certainly resembled that of typhoid fever, in some respects; his case, however, had been closely watched for three weeks, and had been positively diagnosed as syphilitic by one of his colleagues. The question of septic infection had arisen, but there had been no reason to suspect its existence.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 12TH, 1884.

JOHN MARSHALL, F.R.S., President, in the Chair.

On Alcoholic Poisoning.

DR. W. H. BROADBENT read a paper on this subject, of which the following is an abstract:—

A case occurring in a gentleman, aged 42, was related. He had developed a liking for wine in early manhood, and had gradually become inert and sedentary, spending most of his time in bed, reading and drinking port. In 1875, he was placed under the care of Dr. Harrison, of Shepherd's Bush Green, as a dipsomaniac. He never had pronounced delirium tremens, but had been wakeful and nervous, and for some months before his final illness had been failing in mental power. The paralysis came on very insidiously; the arms had been noticed to be weak for a fortnight, but there had been no great interference with the use of his hands in holding his paper or conveying drink to the mouth till within a few days of the first consultation between Dr. Harrison and himself on April 3rd, 1883. At this time the paralysis was chiefly manifest in the extensor muscles of the forearms, giving rise to double drop-wrist, but the flexors were also weak, and the muscles of the trunk were enfeebled, and although all movements of the legs were freely effected in bed, he could not stand alone. The knee-jerk was lost, the sole reflex marked. Sensation was unimpaired, the sphincters were not affected. A special peculiarity was the pale, puffy, purplish condition of the hands, while the feet, when hanging down, could be seen to swell. The urine contained neither albumen nor sugar. The pulse was frequent, and small, and weak, but regular. The first sound of the heart short and followed immediately by the second at too brief an interval; there was no valvular murmur. A week later the paralysis had so far increased that the hands lying alongside the body could not be placed upon it, and the legs could not be drawn up in bed. There was also obvious paralysis of the diaphragm, which soon gave rise to respiratory distress and to difficulty of speaking. Next day the lower ribs, which had previously expanded well, only moved upwards with inspiration, and death took place from asphyxia on the 11th. On *post-mortem* examination of the cord (which was all that was permitted) it was found to be remarkably pale, but its consistence was normal, and no change could be found on microscopical examination, which was carefully made by Mr. Silcock. Other cases, essentially similar, had been seen by himself with the late Dr. Rhodes, of Weymouth, in a lady aged about fifty; with Dr. Myrth, of Harrowgate, in a lady aged about thirty; with Mr. G. Amos Duke, in the wife of an inn-keeper; in a deserted mistress in St. Mary's Hospital; and in a gentleman, aged thirty-nine, with Mr. Wheeler, of Chiswick. In another case, seen with Dr. Morton, the later symptoms did not altogether correspond with those described. In all alcohol had been taken in unusual excess, and he considered himself justified in considering it as the cause. Most of the patients were females of sedentary mode of life, and the case described was in a gentleman who scarcely ever went out and spent most of his time in bed. It was thought probable that the absence of exercise was the determining cause of the alcohol affecting the cord. The disease most resembled acute ascending spinal paralysis, differing chiefly in the order in which the different parts of the cord were attacked, the double wrist-drop at an early period being highly characteristic.

DR. WILKS said the subject was one which had long interested him. The effects of alcohol on the nervous system were ill understood at present; he was glad that so able an authority as Dr. Broadbent had taken it up. It was curious how some people were more liable to suffer than others, and how also some organs were more susceptible than others. For instance, a person went on for a while taking alcohol without noticeable effect, then he got dropsy and his liver became affected; while in another case it was the brain which seemed to suffer. It was curious also to note that women were more frequently affected than men. In the brains of those dying with delirium tremens, no structural changes were appreciable, although the membranes were found thickened. This disease is more common than the author of the paper seemed to think. He (Dr. Wilks) was constantly meeting with cases; it was remarkable, however, how they recovered from the disease, if patients would only leave off their alcohol; recovery, indeed, occurs even in the severe cases, with perseverance in treatment; this was proof positive that there could be no structural changes. Alcohol was supposed to give rise to fibroid changes in the nerve centres; but he had seen cases recover completely, notwithstanding, provided the cause were removed; a year's rest in bed, with electricity, might be required; hence he thought there was no hard-and-fast pathology. Were Dr. Broadbent's cases typical? If alcohol had any specific effect, the symptoms, he imagined, would necessarily vary with the part chiefly affected. In the myelitis of syphilis the symptoms varied in this way, and why should they not do so in alcoholic disease, if alcohol really gave rise to any specific morbid change?

DR. BUZZARD said the fact that the disease was not a new one in no way detracted from its interest. With characteristic modesty, Dr. Wilks had not referred to his own writings on the subject, published some twelve years ago. He agreed with Dr. Wilks that, although there were general resemblances in the cases, there were nevertheless differences. Contractions did occur, and sometimes persist, yet the muscular paralyses might occur without them. In his own experience lancinating pains were not uncommon. In some cases also hyperalgesia was so marked that the patients could hardly bear the weight of the bed-clothes. He had found that the muscles reacted less well than normal to the constant current, but with exaggeration to the interrupted current; this showed the lesion to be in the spinal cord, and resembled what existed in lead-poisoning. Although no pathological lesions could be discovered in the spinal cord, yet atrophic changes had been found in the nerve trunks, such as were sometimes found on the trunks after injury to the multipolar cells in the anterior horns. Two or three years ago Dr. de Watteville had suggested that a dynamic change in the cord was the probable cause, a temporary arrest of function; the cord being a trophic centre, atrophic changes in the nerve trunks proceeding from it were brought about. Personally, he had never seen a fatal case, but had been surprised to see how patients recovered, either after two or three attacks. His cases were mostly females. He had seen some cases in women of active employment, and he could not, therefore, attribute the condition to the want of

proper exercise. The electrical test was the best means of differentiating between this disease, and acute ascending neuritis.

Dr. Wilks rose to add that he quite concurred as to the lancinating pains, Dr. Anstie, many years ago, had drawn attention to them.

Dr. Barlow could recall four cases of alcohol paraplegia, all occurring in women, aged respectively, 26—31, 30, 40, and 60 years. In all there was some hyperalgesia; and though neuralgia was absent, the patients all resented handling. The contractions were not quite like those of amy-otrophic disease; they more resembled the uncontrolled action of antagonistic muscles. There were no pupil changes, both the upper and lower limbs were affected, and there was muttering delirium in two of the cases. Three recovered, and one died. In the fatal case, had alcohol and chloral been entirely discontinued, he felt sure that recovery might have taken place.

The President apologised for Dr. Broadbent's unexpected absence, and regretted that there could be no reply to the criticisms which had been made. The fatal nature of all Dr. Broadbent's cases was in marked contrast to what some of the speakers had said on this part of the subject.

Description of the Microscopic Preparations sent to the President.

By Dr. Straus, of Paris, Chief of the French Scientific Mission for the Investigation of the Cholera in Egypt, who gave the following description of them. They consisted:—1st. Of two preparations of the *rice-water stools* of cholera patients, stained with gentian violet. There will be found in these an innumerable host of organisms (various bacilli, micrococci and bacterium termo) of every kind, none of which, however, present anything very characteristic. 2ndly. Of eight *sections of the small intestine* (principally of the ileum) made from specimens hardened in absolute alcohol. These sections have been stained with methylene blue, and are mounted in Canada balsam. Those which are marked No. 1, came from a patient who died on the fifth day of the attack; No. 3, was taken from a patient who died at the end of the second day; No. 18, from one who died thirty-six hours after the commencement of the disease; No. 23, from one who succumbed at the end of the third day; Nos. 12 and xii, from a patient who, having had marked typhoid reaction, died thirteen days after the first attack. Most of the autopsies were made *immediately* after death. The latest amongst those from which the specimens were taken, was that from which No. 18 was obtained, which was made seven hours after death, an already late period in a country so hot as Egypt. Upon these sections there will be found:—1st. A complete desquamation of the epithelial covering of the villi and of the intestinal mucous membrane. 2ndly. In the substance of the mucous membrane, in the tissue of the villi, in the lumina of "Lieberkühn's follicles," and here and there, in the sub-mucous tissue itself, various Schizo-mycetes stained with methylene blue. The greater number of these are bacilli, and amongst them *there is one, which is the most frequently met with, short, thin,* and *straight,* and which is probably that which Dr. Koch has likewise seen, which he compares with the bacillus of glanders, and which he believes to be the cholera organism. "However, I dare not affirm," writes Dr. Straus, "that this is the organism seen by Dr. Koch, for that observer has not given the technical method employed by him in order to stain his microbe; but, for my part, it is more than probable that this latter is the same as that which is found in such great numbers in my preparations." Besides this bacillus, however, there is to be met with in these preparations another *larger one,* also some short thick bacteria, and, furthermore, numerous micrococci, situated in the substance of the intestinal mucous membrane.

Mr. Horsley described Dr. Straus's microscopic specimens; he said that he had found all the organisms described by Straus; but was quite unable to say that these organisms were at all characteristic of, or peculiar to, cholera.

Mr. Macnamara read extracts from a letter which he had received from Dr. Koch, now at work in India, in which he (Koch) expressed his full belief in the organism view of the nature of cholera, although he had hitherto failed to produce cholera artificially by injections or inoculations. He had made some further investigations, but was not at liberty to publish the results at present, but it was hinted that the special bacillus had been separately cultivated, and that the cholera could be artificially induced by their use.

Dr. Thin thought that, before we could speak with certainty as to the effects of the cholera poison on the intestinal tract, it would be desirable to institute a series of observations in man and animals, on the minute anatomy of the intestinal mucous membrane.

Sir Joseph Fayrer said he was one of those who did not believe in the communicability of cholera from person to person. Until it was shown that cholera could be produced artificially by injecting these bacilli, he could not accept this germ theory as the cause of cholera, nevertheless great good must result from the minute study which was now being devoted to the subject. He failed to see the grounds on which it was maintained, that cholera had been imported into Egypt; on the contrary, there was abundant reason to explain its outbreak in the insanitary conditions which everywhere prevailed.

Dr. Buchanan pleaded that Koch's views had not been fairly reproduced by Dr. Straus; for Koch had not said that any one of the organisms described was *the* organism of cholera. In Egypt, the epidemic was dying out, and on this account Koch had gone to India to continue his researches. So far, the germs described as present, appeared to Koch to be the effect, and not the cause, of cholera. Koch was, however, continuing his experiments.

Professor Lewis (whose long experience in India allowed him to speak with some authority) said that for years past he had been familar with the various organisms described by Straus; he should, however, hesitate before admitting that any of them were peculiar to cholera. He agreed with Sir Joseph Fayrer, that cholera is not communicable from person to person—that is to say, he had never personally observed such cases.

The President thanked those who had taken part in the discussion. He proposed that the specimens should be submitted to a small committee of experts for further examination and report, as the subject was one of great importance.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

Wednesday, February 13th, 1884.

Norman Chevers, Esq., M.D., C.I.E., President, in the Chair.

After some preliminary business had been transacted, the adjourned debate on Surgeon-General Hunter's paper was resumed.

Sir William Smart commenced by observing that one method of the introduction of cholera into a district was by the importation of fresh specific germs. Dr. Hunter had adduced, in his opinion, ample evidence in support of the view that the disease was endemic in Egypt, and not

imported. There was no doubt that the disease had become epidemic at Damietta, and travelled up the Nile. It was to be noted that several of the epidemics had in reality only been recrudescences of their predecessors. From 1866 until last year the germs had not been strong enough to produce more than cholerine cholera nostras, or choleraic diarrhœa, when cholera again appeared. After passing in review the history of cholera, he alluded to Watson's statement in 1843, that cases had occasionally occurred in this country since the outbreak in 1832. Epidemics were apt to be spread over a long period of time, thus, one began in Europe in 1847 and lasted till 1861. In conclusion he stated that he most perfectly coincided in every particular with Surgeon-General Hunter.

Inspector-General LAWSON said that the real point at issue was as to whether cholera could be conveyed by human intercourse alone, or in other ways alone, or not. The question had been before the profession for 50 years, but they had done very little to solve it. They had acted on partial information and theoretical conclusions, whereas true advance could only be made upon facts and a rigid analysis of them. Ten years ago he had read a paper before the Society urging these points. Very often when cholera broke out at a place, there was evidence pointing to importation, and there was also evidence that the disease had been pre-existent. Such cases were useless for the purpose in hand. Cases must be sought for where both kinds of influence were not at work, *i.e.*, where importation of the disease could be excluded, as in the epidemic of 1865 in this country. Dr. Hunter's report excluded one factor in regard to the outbreak in Egypt, and left therefore only one factor to be taken into consideration. In a matter of this sort, facts and the strict logical deductions from them alone should be dealt with. If the arrival of a case of diarrhœa into a healthy neighbourhood from a cholera district were followed by an outbreak of cholera, everyone would say that the case of diarrhœa had been one of cholera. He thought the expression, origin de novo, an unfortunate one; nothing occurred without adequate cause, and cases did not occur by chance. In the Registrar-General's report, deaths from cholera formed a fluctuating quantity, and during an epidemic there was an increase in the mortality from the malignant cases. On every occasion when there had been a marked increase of cholera here, there had been an epidemic somewhere in the neighbourhood. In 1869, during an epidemic in the South of Europe, there had been a marked increase of cholera in this country, with distinct outbreaks at Southampton Water, at a village in Yorkshire, at a prison in Manchester, and at Wick. Sometimes such a manifestation preceded the arrival of an epidemic. Cases of sporadic cholera were part and parcel of the epidemic, owned the same causes, and were an indication of the existence of those same causes. From other facts to which he alluded, he was led to conclude that the active cause of cholera might reach a place without communication at all from elsewhere, either for an isolated case or for an epidemic.

Dr. THRUPP said, he thought that the evidence collected by Dr. Hunter, in the short space of two months, was convincing proof that, between 1865 and 1883, cholerine, choleriforme, and cholera nostras, had existed throughout Upper Egypt. He considered the all-important question to be, what was the clinical and pathological connection between these three disorders and cholera? Dr. Hunter said, that in India they were the same, and he (Dr. Thrupp) hoped the point would be settled that evening. Both in India and in Egypt a like disease existed in a permanent form, and a like disease occasionally in epidemics. Why was it called cholera in the one case, and not in the other? He thought a cholera germ was as great a myth as the sea-serpent. He concluded by stating the following propositions:—1. The so-called types of cholera were not really different diseases. 2. The disease had in each country an endemic and epidemic phase, and the laws which converted the first into the second were dependent on local, climatic, and meteorological conditions.

The PRESIDENT asked whether cholerine, cholera nostras, &c., were always existent in India, as that had not been his own experience.

Dr. THRUPP replied, that he had been quoting Dr. Hunter, and he agreed with him, that all these diseases did exist there, and represented an endemic and modified form of the disease.

Dr. LONGHURST thought that, as a nation, we had neglected our duty in not studying this disease further. He had long ago suggested the appointment of a committee to investigate it in India, but nothing had been done. He considered that Dr. Hunter had proved that the disease was cholera, and that the epidemic was the outcome of a disease the history of which had proved that it belonged to Egypt just as much as to India. He thought that it was not an endemic disease in the sense that it was always amongst the persons, but rather that it was a climatic disease ever prevalent. He was strongly of opinion that it was a specific entity, though the germ could not be recognised by our present methods of investigation. Quarantine was utterly useless.

BRIGADE-SURGEON SCRIVEN, after correcting an important verbal error which had accidentally been made in our report of his speech at the last meeting, and for which we have to express our sincere regret, said that he did not hold very strongly to the de novo origin of cholera. He said that we were accustomed to regard the Delta of the Ganges as its home, and to believe that it did spread. The possibility of all sources of importation had not been as yet excluded—*e.g.*, by pilgrims from Mecca. As to the disease being endemic in Egypt, this was not fully proved; the cases were too vaguely given, the clinical records were imperfect, and there was very little evidence of its tendency to spread. We had to find out whether cholera was still prevalent in Egypt, if it had no home in Egypt, either it had already ceased, or would do so very shortly. The local practitioners should rely upon suppression of urine and fall of temperature, as the two most important symptoms. In India all cases of purging and vomiting were accounted by the natives as cases of cholera, and he quoted three instances to show how fallacious this opinion might be.

Dr. CULLIMORE made some observations to the effect that there was an *à priori* presumption that the disease was imported. The meteorological conditions present favoured its spread. He believed in the truth of Dr. Koch's discoveries.

Sir W. J. HUNTER, in reply, briefly alluded to the honour conferred upon him by the Queen which had just been mentioned by Sir J. Fayrer; he said his motto in regard to that was "Je suis avant tout, je suis un médecin." He was pleased to find Sir W. Smart and Dr. Lawson in such entire accord with himself. Dr. Thrupp's question gave the real key to the position, and he replied to it by another question, viz., when a case came with purging, vomiting, prostration, aphonia, anuria, cramps, and symptoms of an algide state, that was cholera; sometimes the symptoms were not so marked, but this group of symptoms always signified cholera. He referred to his report, where cases in America had been described under various names, but all in reality cases of cholera. Cases of cholerine, &c., might vary in degree, but they were one and and the same thing. He could see no difference between the cases in Egypt and the cholera he had seen in India. As to "typhus-cholera," he was in no way responsible for the opinions of others. He admitted that the details of the cases were insufficient; but the evidence was that of medical men, whose notes had been burnt in Alexandria, and who therefore had only their memories to rely upon, but this made him the more inclined to accept their statements. He hoped that further observations would be made. There was no subject upon which opinions were more numerous, or facts more scanty. He challenged anyone to prove the importation theory. The difficulties of his investigation had been much increased by the political and mercantile considerations which so embarrassed this question in Egypt.

Sir W. SMART proposed a vote of thanks to Sir W. J. Hunter.

Sir W. J. HUNTER read a letter from Dr. Buchanan, containing the following extract from Bacon:—"It is recorded by competent observers that if you take earth from the side of the Nile, and protect it from wet or waste, and weigh it every day, you will find that it remains always of the same weight until the 17th of June, when it begins to increase in weight, and continues to increase in weight during the whole time that the river is rising. This can be due to

nothing but the air, and this is the more extraordinary, *because it has been observed that just* AT THAT DATE *it is the habit of grievous plagues to make their appearance at Cairo.*"

Dr. CHEVERS, on behalf of the Society, briefly thanked Sir W. J. Hunter for his important contribution to State Medicine.

OBITUARY.

ALEXANDER THOM THOMSON, F.R.C.S., J.P.

MR. ALEXANDER THOM THOMSON, who died at Oldham, on the 29th ultimo, was born at Montrose in 1820. He received his education at Edinburgh, and became L.S.A. in 1843. In the same year he also took the membership of the English College of Surgeons, the Fellowship of which was conferred on him fifteen years later. Mr. Thomson practised at Cheadle, in Cheshire, from 1843 to 1854; in the latter year he removed to Oldham, where he soon acquired a very large connection. In 1864, he broke down, with symptoms of degeneration of the cerebral arteries. He obtained the help of a partner, and having in some measure regained his health, was enabled to take a fairly active share of work, until September, 1873, when a small cerebral hæmorrhage, attended with transient hemiplegia, again incapacitated him. From this time till his final retirement from practice in 1876, he was only able to undertake a comparatively small amount of active labour. After giving up practice, Mr. Thomson, having been appointed in 1879 J.P. for the county of Lancaster, devoted himself with energy to his magisterial duties, both on the bench, on the county finance committee, and as a visiting justice to the asylums. For some months before his death he had been conducting, with much interest, a physiological class for young men, and it was in returning from a meeting in connection with this work, in the teeth of the storm of January 26th, that the final fatal attack of cerebral hæmorrhage took place. He was seen to fall down in the roadway, was carried home, and died, without recovering consciousness, on January 29th. Mr. Thomson was a man of considerable talent, and though he never contributed to the literature of his profession, kept himself well abreast of contemporary science. He was skilful in diagnosis, and was frequently called in as a consultant by his fellow practitioners. He was an excellent man of business, and his council was constantly sought on other than purely professional matters. He took an active share in the organisation of the Oldham Infirmary, twelve years ago, and succeeded at the time in obtaining recognition of the principle of payment for medical services. He had great moral influence over his brother practitioners, and was on many occasions successful in smoothing professional differences. His social gifts were considerable, and he will be greatly missed, not only by his own immediate family, but by the social circle of which he had been for long the centre.

GENERAL CORRESPONDENCE.

A PROTEST.

[To the Editor of the Medical Times.]

SIR,—In the interests of humanity admit our protest against the practice of the profession at home who retain consumptive patients till the colliquative sweats or intractable diarrhœa indicates the thorough hopelessness of these cases, and then recommend an Australian voyage as a means to an unattainable result. We are not disposed to deny the rationality of such prescription for maladies of this class in their incipient phase. The balmy atmosphere south of the equator, the bromine, chlorine, iodine exhaled from the sea and coming in contact with the morbid lung at every inspiration are fraught with reparative influence of the most effective character, while the expanse of our continent furnishes every variety of climate suitable for the peculiarities of each individual instance. But can anything short of supernatural power restore patients, who with pulmonary cavities as large as emu eggs, are borne in scores on board the vessels to find an ocean grave or expire among strangers in the Antipodes, bereft of those consolations which family affection would have supplied. Very few ships we clear with the history of the voyage of which some incident of this character is not connected. Sometimes a death occurs at sea; sometimes an emaciated creature is sent to a public hospital to die, the hotels refusing to receive him; sometimes the funeral takes place from the ship's side. Whatever aspect the closing scene in each case may present, we imagine it must be affliction to the patient, the cause of remorse to his domestic circle, and a reflection on the moral and professional character of his former medical attendant.

D. P. MACLEAN, } Health Officers,
E. G. FIGG, M.D., } Port of Melbourne.

January 1st, 1884.

MEDICAL NEWS.

LABOURERS' DWELLINGS IN LIVERPOOL.—In accordance with the directions of the Liverpool City Council, their engineer, Mr. Clement Dunscombe, has reported on the class of dwellings most suitable for the accommodation of the lowest stratum of the working classes at the rate of a shilling per week per room. The report is sanctioned by the medical officer of health. Mr. Dunscombe thinks the nearest approach to the houses required by the Corporation are the Peabody buildings in London; those in Salford, lately erected under the auspices of the Manchester and Salford Working-men's Dwellings Company, Limited; and the blocks now in course of erection on Nash Grove, Liverpool. The rent, however, is above the specified amount in all of these cases, and it will be difficult, and sometimes impossible, to make such dwellings a financial success if the rental per room is limited to a shilling a week. Mr. Dunscombe has therefore proposed certain modifications, by which we hope the problem may be solved.

RESEARCHES UPON INFECTIOUS STOMATITIS AND NOMA.—A grant from the Research Fund of the British Medical Association was accorded to Mr. Alfred Lingard in August last for the above purpose, and he requests us to state that he will be very glad to hear of any case of noma which he could visit, either in London or in any part of the country. Communications should be addressed to Mr. Alfred Lingard, 49, Lambeth Palace-road, S.E.

NATIONAL HEALTH SOCIETY.—The Worshipful Company of Clothworkers has been pleased to grant a donation of 21*l.* to this most active and useful Society.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—*Double Qualification.* The following gentlemen passed their first professional examination during the January Sittings of the Examiners:—John Struthers Stewart, Lanarkshire; Chandos William Hoskyns Abrahall, London; George Arthur Herbert Woodforde, London; Charles Cochrane Dickson, Galashiels; Emmanuel Portal, Mauritius; Charles Jenkins Lumpkin, Sierra Leone; Ernest Goode, Birmingham; Hugh St. David Griffiths, Cheltenham; Evan Jones, South Wales; Frederic Julian Stone, Glasgow; Hamilton Edward Leonard Earle, Plymouth; Lionel George Wright, Colombo, Ceylon; John Arthur, Co. Derry; Henry Joshua Angustine, Calcutta; Robert Michael Forde, Lisanby Cottage, Cloyne; Hammond William Rufus Richardson Crosse, Middlesex; Parvah Nath Datta, Bengal; George Martin Giveen, Blackrock, Co. Antrim; James Bernard Wall, Blyth, Coleshill, Birmingham; Godfrey Ernest Garde, Timsleague; Edward Davies, Barmouth; Robert Morrison, Toberdoney; Samuel Wimbush, Heslerton: Thomas James Galloway Ganett, Exeter;

John Harford Jones, Merthyr Tydvil; Richard Power Rankin, Victoria, Australia; James Gray, Keith; Henry Peter, Stuybertsiz, Ceylon.

And the following gentlemen passed their final examination in February, and were admitted L.R.C.P., Edinburgh, and L.R.C.S., Edinburgh:—John Struthers Stewart, Lanarkshire; Charles Edward Morris, Campden; Charles Jenkins Lumpkin, Sierra Leone; Richard Nason Gaggin, Balby; Richard William Cæsar Hamilton, East Lothian; William James McFarland, County Tyrone; John William Irvine, San Francisco; Allen Adair Dighton, Gloucestershire; Joseph Bowerman Drew, Stow-on-the-Wold; John Hanson, Weeting, Norfolk; Augustus William Dalby, Jedburgh; Joseph George Garibaldi Corkhill, Liverpool; Archibald Harper, County Monaghan; Robert Knox Carleton Graham McCorkill, Canada; Lewis D'Almeida, India; Thomas Adam Beresford Kane, County Armagh; Maurice Stack Cussen, County Kerry; Charles Horace Barkley, London; Arthur Nathaniel Barnley, Bedfordshire; William Holberton Square, Kingsbridge; Ernest James Flynn, Dublin; Herbert Longmore Grant Chevers, Calcutta; Hamilton Edward Leonard Earle, Plymouth; Oliver Grenville Taaffe, Sherbourne; William Richard Coudon, Tipperary; William Frederick Hamilton, Londonderry; Richard Ferdinand O'Farrell, Galway; Ernest Howard Goode, Birmingham; Samuel Oliver Eades, India; Charles Reidy, Limerick; Edward Hodges Goggin Phillips, Limerick; John Henry McAuley, Randalstown; James Orr, Kilbride; John Joseph Hanly, County Tipperary; Simon Vincent Daly, Cork; Alexander James Griffith, County Leitrim; John McMichael, Dublin; Donald Alexander MacCrimmon, Ontario; Edward Flood McGragh, County Cork; Henry George Thomasz, Ceylon; Thomas Francis Hanly, County Tipperary; William Gibb, Dundee; Richard Fitzmaurice, County Cork; William Robinson, County Derry; David Matthewson Nairn, Dundee; Joseph Amy, Jersey; Alexander Willox McFadyen, Stirling.

Royal College of Surgeons of Edinburgh.—During the January Sittings of the Examiners, the following gentlemen passed their first professional examination:—Samuel Garland Sharpe, Norwich; and Louis Edgar Portal, Mauritius; and the following gentlemen passed their final examination, and were admitted Licentiates of the College:—George Lowbridge Baker, Dorchester; Edwin Harold Brown, Bombay; and Henry Edwin Dobie, China. Mr. George Dall Orrock, of Edinburgh, having passed his final Examination, was admitted L.D.S., Edinburgh.

A New Test of Water Purity.—Dr. Angus Smith, F.R.S., reports to the Local Government Board, as one of the inspectors under the Rivers Pollution Prevention Act, that in all natural waters sugar ferments and hydrogen gas is given off, the proportion varying with the organic impurity of the water. The proportion of hydrogen evolved will prove a quantitative test of the virulence of the microbes present in the waters.

University of Cambridge.—The Vice-Chancellor, Dr. Phear, Professors Paget, Latham, Humphry, Cayley, Liveing, and Foster, Mr. H. Latham, Trinity Hall; Mr. Coutts Trotter, Trinity; and Mr. D. Macalister, St. John's, have been appointed a Syndicate to take into consideration any Medical Act Amendment Bill which may be introduced into Parliament during the present Session, and to make such representations, and take such steps with reference therto, as they may think fit.

The Operations in the Red Sea.—Arrangements have been made for supplying Admiral Hewett's force with surgical and medical aid. About twelve surgeons will proceed from the Mediterranean fleet with the reinforcements supplied by the ships of the squadron, and, in addition, the surgeons of the Euryalus, Decoy, Ranger, and Sphinx, at Suakim, have been instructed to place themselves in readiness for service ashore with the medical officers who are on their way home from the East India station on board the Orontes. Medicinal stores will be supplied from the Mediterranean fleet, and from the head-quarters at Malta and Cyprus.

Donations to Hospitals.—A donation of 1,000*l.* has lately been presented to St. George's Hospital by an old governor. The sum was given after a minute inspection of the hospital as a mark of the donor's satisfaction with all he saw as to the condition of the wards and general comfort of the patients. Sir Massey Lopes, M.P., has contributed 1,000*l.* towards the erection of the South Devon and East Cornwall new Hospital buildings, being the third sum of the same amount he has subscribed during the past two years. There is still a deficit of 9,000*l.* The late Mrs. Dixon, of Belleisle, has left 1,000*l.* to the Ayr Hospital.

Naval Appointments. — Staff Surgeons — Frederick M'Clement, M.D., to the *Revenge*, *vice* Bolster; James H. Martin, to the *Euryalus*, for service with the Royal Marines in Egypt; William B. Drew, to the *Alexandra*, for service with the Royal Marines in Egypt. Surgeons—Michael J. McCarthy, M.D., and Nicholas C. Ross, to the *Alexandra*, for service with the Royal Marines in Egypt; James S. Wray, to the *Woodlark*, recommissioned; Henry W. D. Walsh, to the Plymouth Division, Royal Marines, *vice* Ross; Henry B. Collins, to the *Indus*, *vice* Walsh; Gilbert Kirker, to Haslar Hospital, *vice* Collins.

Royal College of Surgeons.—At a meeting of the Council on the 14th inst., Mr. Charles Atkin, L.R.C.P. Lond., of the Sheffield School of Medicine and Guy's Hospital, who passed his fellowship examination in May last, having since attained the legal age of 25, was admitted a Fellow of the College. his diploma of membership bearing date January 23rd, 1880.

The Bower and Keates Indemnity Fund.—The Committee have received a cheque for one guinea from Francis Willis, M.D., M.R.C.P.L., Asheville, N. Carolina, U.S.A., which was sent before the list was closed. All sums received since January 26th have been returned.

Erratum.—In the final list in the issue of Feb. 2nd, or "B. Harvey, Esq.," read "B. Harris, Esq."

F. A. Mahomed, R. W. Burnet, } *Hon. Secs.*

The Dublin Artisans' Dwellings Company.—The fifteenth ordinary general meeting of this company, was held on Tuesday, the 5th instant, Mr. Richard Martin, D.L., J.P., in the chair. Commenting upon the report, the chairman observed that the sanitary condition of the tenants of the company continued to be satisfactory. A population of 2,734 inhabited the various blocks of buildings in the City, and the deaths in the last half-year represented a mortality of 19·8 per 1,000 of the population annually. This figure was considerably under the general death-rate of Dublin. The deaths were 27 in number, of which, only one was from an infectious disease—scarlet fever, to which a child under five years of age succumbed. After providing for all expenses, there remained a net balance of 1,655*l.* 4*s.* 1*d.*, out of which the directors recommended a dividend of 4 per cent. per annum, leaving a balance of 254*l.* 1*s.* 10*d.*, to be carried to the reserve and depreciation fund.

Royal Institution.—Professor Arthur Gamgee, M.D., F.R.S., will give the course of five lectures on "Animal Heat; its Origin, Distribution, and Regulation," commencing on March 4th, instead of Professor McKendrick, who will probably lecture after Easter.

King and Queen's College of Physicians in Ireland.—At the monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday and Thursday, February 4, 5, 6 and 7, the following candidates were successful: For the *Licence to Practise Medicine*—Delahunt, William Patrick, Rathgar, Dublin; Finlay, Sinclair, Ballyshannon; Hazleton, Edward B., Holywood, Belfast; Manning, Nathaniel S., Ballyhaise, Co. Cavan; Peet, Francis Fitzmaurice, Tralee, Co. Kerry; Price, William Thomas, Fircapel, Brecon; Roe, Francis Christian, Mountrath, Queen's Co.; Smith, Ventry Alexander John, Sandycove, Co. Dublin. For the *Licence to Practise Midwifery*—Bell, Thomas Gillespie, M.D., R.M.I., Armagh; Brown, Henry Edward, M.D., R.M.I., Passage West, Co. Cork; Digby, Cecil Arthur, M.B. Univ.

Dubl., Dublin; Finlay, Sinclair, Ballyshannon; Hazleton, Edward Benjamin, Holywood, Belfast; Henderson, Robert Wilson, M.D., R.M.I., Garvagh, Co. Derry; Manning, Nathaniel Samuel, Ballyhaise, Co. Cavan; Peet, Francis Fitzmaurice, Tralee, Co. Kerry; Smith, Ventry Alexander John, Sandycove, Co. Dublin. The following Licentiate in Medicine of the College, having complied with the bylaws relating to membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, was duly enrolled a member of the College:—George Deane Bourke, Lic. Med. 1873, Surgeon A.M.D.

APOTHECARIES' HALL.—The following gentleman passed the examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, February 7th, 1884:—

Hillstead, Herbert Jno., Lewisham High-road, St. John's, S.E.

APPOINTMENTS.

APTHORP, FREDERICK W., M.R.C.S. Eng., L.R.C.P.—Medical Officer to the Manhood District, Westhampnett Union.

CLARK, C. A. D., M.B., L.R.C.P., M.R.C.S.—Honorary Physician to the Sydney Hospital.

DEVLINE, DR.—Medical Officer of the parish of Birsay, Orkney.

EMERSON, P. H., B.A. Cantab., M.R.C.S.E.—Sambrooke Medical Registrar to King's College Hospital, *vice* J. F. Silk, M.B., resigned.

GRITTITH, W. S. A., M.R.C.P., F.R.C.S.—Physician to Out-Patients, Samaritan Free Hospital.

HUDSON, C. L., L.R.C.P., M.R.C.S., L.S.A.—Resident Physician's Assistant to the Middlesex Hospital.

ILES, ALFRED R., M.R.C.S. Eng., L.R.C.P., L.S.A.—Medical Officer to the Workhouse, Taunton Union.

LARDER, HERBERT, M.R.C.S. Eng.—Assistant Medical Officer at the Infirmary, St. Marylebone Parish.

LITTLEJOHN, H. D., M.D., L.R.C.S.—Consulting Surgeon to the Royal Dispensary, Edinburgh.

LOANE, J., M.R.C.P., M.R.C.S.—Medical Officer of Health for the Whitechapel District.

MONTGOMERY, SAMUEL, L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer to the Ovenden District, Halifax Union.

PERRIN, WM. B. B., L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer to the Cameley District, and the Workhouse, Clutton Union.

PRICE, JOHN D., M.R.C.S. Eng.—Medical Officer to the Dudley North District, Dudley Union.

STEVENSON, T., M.D., F.R.C.P.—Re-appointed Public Analyst for the Borough of Godalming.

TOMKINS, ARTHUR W., M.D. Dub., L.R.C.S. Edin.—Medical Officer to the Leamington District, Warwick Union.

DEATHS.

BALFOUR, JOHN HUTTON, Emeritus Professor of Medicine and Botany in the University of Edinburgh, at Inverleith House, Edinburgh, on February 11.

BEALES, ROBERT, M.D., J.P., at Chapel House, Congleton, on February 3, aged 59.

ROY, J. J., M.R.C.S., at Humansdorp, South Africa, on January 17, aged 36.

VACANCIES.

BIRMINGHAM GENERAL HOSPITAL.—Resident Medical Officer. Salary £130 per annum, with board and residence. Candidates must be graduates in Medicine of a University, by examination. Applications, with certificates of registration or diplomas, and testimonials, to be sent to W. T. Grant, House Governor, on or before February 28.

NOTTINGHAM BOROUGH ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, apartments, and washing. Candidates must be duly qualified in Medicine and Surgery, and registered. Applications, with testimonials, stating age, &c., to be sent to the Medical Superintendent, on or before February 16.

SKIBBAUGH UNION, BRANDES BURTON DISTRICT.—Medical Officer. Area 10,430 acres. Population 1,472. Salary £24 per annum.

THE HOSPITAL FOR WOMEN, SOHO SQUARE, W.—Assistant Physician. —Also, Administrator of Anæsthetics. (*For particulars see Advertisement.*)

THE GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer. (*For particulars see Advertisement.*)

NOTES, QUERIES, AND REPLIES.

The Medical Services.—The following questions were set at the recent Examination of Candidates for Her Majesty's Army, Indian and Naval Medical Services:—

MEDICINE.—1. Describe the coarser or naked eye appearances, and the finer structural details or microscopic characters of the liver in the varieties of *cirrhosis* of that organ; and also in the so-called "*nutmeg liver.*" Discuss the causes, symptoms, complications, and sequelæ of the lesions you describe. 2. How do you estimate the following constituents in a clinical examination of the urine—(1) The amount of *solids* passed in the 24 hours, as approximately determined by the specific gravity of the urine? Give an example. (2) The amount of *free acid* passed in the 24 hours, expressing the result in the usual way? (3) The amount of *urea* passed in the 24 hours, determined by Liebig's method? (4) The amounts of *chloride of sodium* and of *chlorine* passed in the 24 hours? State the normal amounts passed by an adult man from 40 to 50 years of age, and 140 to 150 lb. weight, in the 24 hours, of—(1) *Urea;* (2) *Free acid;* (3) *Chloride of sodium:* (4) *Chlorine;* (5) *Water.* 3. Describe the structural changes which give rise to *regurgitant aortic valve disease.* Discuss the physical signs (including sphygmographic phenomena) of this condition, the consecutive results and the general treatment of a case. 4. Describe the distinguishing characters of the head, the mature joints and the ova of the *tænia solium, tænia mediocanellata* or *saginata,* and the *bothriocephalus latus;* and the sources of each of these parasites. 5. How do you diagnose the following diseases—*Ovarian dropsy, uterine fibroid or fibro-myoma,* and *large malignant tumour of the uterus?* 6. What are the medicinal substances which stimulate the liver? And discuss the evidences or reasons which justify the conclusion that the substances you name do so act.

SURGERY.—1. Mention the symptoms which would enable a surgeon to diagnose an irreducible inguinal hernia, not strangulated, from hæmatocele, and from an enlarged testicle. If the inguinal hernia be recent, not strangulated, but large and irreducible, what measures should be adopted with a view to its ultimate reduction, without recourse to operative interference? 2. What are the various causes of blood in the urine, independent of accident? Describe the symptoms which would indicate whether it depended on kidney, or on bladder complications. 3. A patient has obstruction of bowel. Describe the symptoms which would indicate that the seat of obstruction was probably in some portion of the small, rather than in the large bowel, and the treatment in such a case. 4. Describe the conditions diagnostic of epithelioma of the tongue; the symptoms which would indicate the propriety of operation, and what would be the best method of its removal. 5. What is the condition known as perforating ulcer of the foot; to what cause is it ascribed and what should be the treatment? 6. Under what conditions does a mammary abscess most commonly occur; what are its usual symptoms, and what should be the treatment, local and constitutional?

ANATOMY AND PHYSIOLOGY.—1. Describe the occipital bone, and let your account include a description of its articulations, its relations to other parts of importance, and an enumeration, in in their order, of muscles or other tissues to which it gives origin or insertion. 2. Describe the anatomy of the male perineum, enumerating, in their order, the parts exposed in a dissection of this region. 3. Describe the pancreas, its position, anatomical relations, structure and physiological functions; give an account of its secretion and its effects on digestion. 4. Describe the origin, course, anatomical relations, and distribution of the right vagus nerve and of its branches. Give an account of its functions generally, and especially of those of the branches which are distributed within the thorax. 5. Describe the dissections by which you would expose the cervical portion of the internal carotid artery, and the relation that it bears to surrounding parts.

ZOOLOGY, BOTANY, AND PHYSICS.—*Zoology:* 1. Select any form of Echinodermata you please, and describe the more important points in its structure. 2. To what sub-kingdom and class of animals do we owe the formation of coral reefs? Give a classification of coral reefs, and mention the principal features in their geographical distribution. 3. Define the term "Notochord," and adduce one or more examples of the persistence through life of this structure? 4. What is meant by "alternation of generations?" Cite from the animal kingdom one or more examples of this phenomenon. 5. What are the special features by which the mammalian fauna of the Australian region is characterised? *Botany:* 6. What are the conditions necessary for the germination of the seed? 7. Give some examples of underground stems, and show how these differ from true roots. 8. What is the "Cambium layer" in a dicotyledonous stem? Describe the behaviour of this layer during successive years in the growth of such a stem. 9. Point out the differences between the germination of a bean and that of a grain of wheat. 10. Contrast with one another, as regards the condition of their floral verticils, the following genera—Lilium, Papaver, Primula. *Physics:* 11. Define electrical induction, and point out the essential nature of this phenomenon, 12. Describe some of the modes by which a bar of steel may be

converted into a magnet. 13. Describe an experiment for showing the composition of water by means of the voltaic current. 14. Explain the origin of the tides, pointing out the conditions on which spring and neap tides, respectively, depend. 15. What is a moraine? Enumerate and distinguish the various kinds, and point out the origin of each.

The Paris Bibliothèque Nationale.—According to the inventory of the Paris National Library, which has just been completed, the number of volumes at the present time amounts to 2,500,000. The manuscript cabinet contains 92,000 volumes either bound, stitched, or in boxes, and 144,000 medals of all epochs, both French and foreign. The collection of prints amounts to more than 2,000,000 specimens, either bound up in 14,500 volumes, or in 4,000 portfolios, the most precious of these being deposited in the reserve gallery, to the number of 80,000. The National Library is in fact the richest and the oldest of all European libraries; and one may judge of progress of intellectual movement of late years in France by the fact that while there were but 24,000 readers in 1868, these had risen in number to 70,000 in 1882.—*Revue Scientifique*, January 26.

Dr. Harris.—The discussion on Mr. Erichsen's motion, in which you in common with so many Fellows are so much interested, came on at a meeting of the council yesterday.

A Country Member.—The Hunterian oration is now a *biennial* discourse. Our advertising columns will give you the desired information.

Dr. Dey, Calcutta.—Letter and Enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Sir James Paget, Bart., London; Dr. Roche, Kingstown; Mr T. P. Peek, London; Dr. Granville Bantock, London; Dr Tirard, London; Dr. Clifford Beale, London; Dr. Willoughby, London; Dr. Shelly, Hertford; Dr. A. Hughes Bennett, London; Dr. G. Coates, London; Dr. Herman, London; Mr. J. Hutchinson, F.R.S., London; Dr. Mercier, Dartford; Dr. Burckhardt-Merian, Basle; Mrs. Lankester, London; The Secretary, Apothecaries' Society, London; Mr. Hughes, Liverpool; The Secretary, Charing Cross Hospital; The Secretary, Royal College of Surgeons, Edinburgh; Dr. Ewart, London; The Director-General, Army Medical Department; Mr. T. Duxbury, Blackburn; The Registrar-General, Edinburgh; Mr. T. Stone, Wimbledon; Dr. W. J. Branch, St. Kitts; Dr. W. Blyth, London; Dr. H. Rayner, Hanwell; The Secretary, Medical Society of London; The Hon. Secretaries, The Bower and Keates Indemnity Fund; The Director-General, Navy Medical Department; The Hon. Secretaries, Society of Medical Officers of Health, London; The Hon. Secretary, Clinical Society of London; Dr. J. W. Moore, Dublin; Mr. J. Bellamy, Local Government Board, London; The Secretary, Royal Institution, London; The Secretary, The Hilton Fagge Memorial; The Secretary, Pathological Society of London; The Health Officers of the Port of Melbourne.

BOOKS RECEIVED—

Report on the Health of the Borough of Birmingham, for the quarter ending December 31, 1883—Plain Facts about Arkansas and Texas—Instituto de Terapéutica Operatorea del Hospital de la Princesa—Notes on Dental Practice, by Henrcy C. Quinby—Our Schools and Colleges, 2 vols., by Capt. F. S. Dumaresq de Carteret. Bisson — Burgess Hill as a Health Resort, by T. F. J. Blaker, M.R.C.S.—The Fashionable Mutilation of Domestic Animals—Microscopical Morphology of the Animal Body, by C. Heitzmann, M.D.—Beport on the Stroud Union Rural Sanitary District for 1883—Coal Gas, by T. Fletcher, F.C.S.—The Bladder during Parturition, by J. H. Croom, M.D.—Gallerie beruhmter Kliniker, von Dr. J. Hirschfeld.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hopitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften —Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Schoolmaster—The Sheffield Daily Telegraph—Revue de Chirurgie—Tijdschrift voor Geneeskunde—The Tricyclists Vade Mecum—Western Mail—The Eastern Medical Reporter—The Australian Medical Journal—The Indian Medical Gazette—Société Médicale—Revue de Médicine.

APPOINTMENTS FOR THE WEEK.

February 18. *Monday.*

Medical Society of London.—Drs. Coupland, Bristowe, Cayley, and Frederick Taylor, will read Papers embodying "The Results obtained in the London Hospitals by the Cold Bath Treatment of Enteric Fever." The subject will be continued on February 25th. Mr. Fleming will show a Surgical Lamp Battery in the Library. Dr. Sansom will show specimens of Solid Liniments.

Royal College of Surgeons of England, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Seventh Lecture "On Mammalian Descent."

19. *Tuesday.*

Pathological Society of London, 8.30 p.m.—Dr. Angel Money, "Spinal Cord, from a recent and old case of Infantile Palsy." Dr. Coxwell, "Amyotrophic Lateral Sclerosis." Dr. Sainsbury, "Malignant Disease of Mesentery." Dr. Norman Moore, "Interstitial Disease of Ovary." Dr. Hobson, "Secondary Nodules on Peritoneum in a case of Ovarian Tumour." Mr. Watson Cheyne, "Two cases of Purpura Hæmorrhagica in which Organisms were present." Mr. Barwell, "A Neoplasm affecting the knee-joint." Mr. Lane, "Fracture of Cartilage of the first rib." Dr. Hall White, "Insular Sclerosis." Mr. Dent, "Deformity of Feet from Perforating Ulcer" (living specimen). Mr. Shattock, "Double Vena Cava, the left being the larger" (card).

Royal Institution, 3 p.m.—Prof. A. Geikie, "Scenery of the British Isles."

20. *Wednesday.*

Royal College of Surgeons of England, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Eighth Lecture "On Mammalian Descent."

21. *Thursday.*

Royal Institution, 3 p.m.—Prof. Pauer, "Music for the Pianoforte," &c.

22. *Friday.*

Clinical Society of London.—The following Papers will be read:—Mr. Mansell Moullin, "A case of Thrombosis of the Vena Cava;" Mr. R. Clement Lucas, "A case of Charcot's Joint Disease;" Mr. Noble Smith, "A case of Dislocation of one of the Semilunar Cartilages;" Dr. Samuel West, "A case of Multiple Hepatic Abscesses in a Boy." The following Living Specimens will be exhibited:—"A case of Excision of the Patella, by Mr. R. Clement Lucas; "Anomalous Affection of certain Bones and Joints," by Mr W. Morrant Baker; "A case of Nodules on the Finger," by Mr Godlee.

Royal Institution, 8 p.m.—Sir F. Bramwell, "London (below bridge) N. and S. Communication."

Royal College of Surgeons of England, 4 p.m.—Prof. W. K. Parker, F.R.S., will deliver his Ninth Lecture "On Mammalian Descent."

23. *Saturday.*

Royal Institution, 3 p.m.—Prof. Morley, "Life and Literature under Charles I."

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MEDICAL TIMES

AND GAZETTE.

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CASES OF SPINAL DISEASE, ILLUSTRATING THE CLINICAL HISTORY OF SPINAL SCLEROSIS.

By JAS. RUSSELL, M.D., F.R.C.P.,

Physician to the Birmingham General Hospital.

I present a report of certain cases of paralytic disease of the spinal cord, on account of the illustration they afford of that form which is associated with the symptoms (spasmodic contraction, tonic and clonic, and tremor) with which pathologists have been taught by experience to connect the idea of sclerosis of certain parts of the cord; but which still leave some fundamental questions respecting the pathology of the diseases either imperfectly answered, or altogether waiting to receive a reply. To these cases, in order to point the contrast, I add a case of amyotrophic lateral sclerosis, together with a typical instance of the malady originally known as infantile paralysis, appearing in the adult. I may at once say that I have only a clinical report to present; I have not enjoyed the rare opportunity vouchsafed to Dr. Dreschfield, of verifying a diagnosis by the conclusive evidence of post-mortem examination.

The spasmodic element in these diseases possesses a pecial interest for some of the older generation of students of medicine like myself, on account of the association, in its tonic form, with the name of an original and close observer, and an admirable clinical teacher, the late Dr. Todd, who, in his "clinique," often laid much stress on the forms of rigidity which are apt to occur as a secondary condition, in limited cerebral disease, and which he classed under the terms of "early and late rigidity." More than one theory, besides that formulated by Dr. Todd, was offered to explain this occurrence, previous to the observations of Türck, observations with which the public are now acquainted, as expanded by Charcot and Erb.

The principal symptoms of sclerosis of the lateral column of the spinal cord are represented by Erb ("Ziemssen's Cyclopædia," xiii., 622) as having been combined from various complicated cases; these have been expanded by himself and by Charcot—by the latter especially, in his "Lectures on Localisation in the Spinal Cord," lately published by the New Sydenham Society. In these lectures a disease picture of Secondary Sclerosis (uni-lateral) of the Spinal Cord is ably constructed, from cases of limited cerebral disease, like those observed by Dr. Todd. From these instances the argument is applied to cases of similar spasmodic paralysis, secondary upon spinal lesion implicating the entire thickness of the cord, and attended with destruction of the white fibres in a limited area. The degeneration is a consequence of this destruction of tissue.

I shall narrate two cases illustrating this secondary form, consequent on spinal disease: one of the cases exhibiting the clinical change in its early stage of gradual development; the other in its completed form; the two cases presenting interesting differences between themselves, such as are met with in any collection of examples of this form of disease. In each instance evidence of incapacitating lesion having preceded the spasmodic symptoms is very clear.

Considerable interest, however, extends beyond these cases of secondary spasmodic paralysis, whether of cerebral or of spinal origin, to another class in which no lesion can be ascertained to have existed prior to the appearance of the spasmodic paralysis, in which, therefore, the question has to be considered whether or not the spasmodic disease is of primary and independent origin; and if so whether it consists in the same condition of the lateral columns as we find in the cases I have just quoted.

With respect to the spasmodic contraction which constitutes the distinguishing feature in lateral sclerosis of a secondary order, this is referred to irritation communicated to the spinal motor cells from the sclerosing pyramidal columns, these cells standing between the morbid process in these columns and the roots of the nerves. Whether, and to what extent, another element may have a share in the production of the spasm, viz., the separation, by the change in the pyramidal columns, of the spinal cord from the controlling influence of the brain, it is not now necessary to enquire, nor is it necessary to discuss the enquiry, closely allied with the last-mentioned question, and ably analysed by Dr. Bastian in *Quain's Dictionary of Medicine* (article, "Spinal Cord, Diseases of") as to the nature of the sclerosis itself, whether it is to be regarded as being of necessity inflammatory in its origin. Charcot emphasises the statement that the lesion thus communicated to the motor cells, is dynamic only, unaccompanied by any ascertained material change. The motor cells, in fact, constitute the element opposing the degenerative process in the grey matter, and preventing it from reaching the nerve tubes and the anterior roots. Once established, however, the dynamic influence extends through the nerve reticulum, causing the reflex phenomena which form so prominent a feature, by exaggerating the effect "of those permanent stimuli which ordinarily emanate from the muscles and their aponeuroses."

This condition of exalted reflex irritability, as pointed out by Charcot, may arise quite independently of any organic lesion. It is closely connected with spinal sclerosis, co-existing therewith as a rule; it is, nevertheless, contingent, and not "a function" of that lesion: it may arise independently. It does so arise in strychnine poisoning; and hysteric contraction is a typical illustration of its independence. I may quote briefly a striking evidence of spasmodic contracture having all the character of the contraction of spinal sclerosis, and occurring, moreover, in union with symptoms which completed the picture of secondary spastic paralysis, in which, however, there could be no doubt as to the absence of organic change in the spinal column. The case was published in this journal, January 24, 1880. Prior to experience of the course of the case, it was naturally set down as a case of secondary spastic paralysis, possibly of sclerosis, of secondary origin, until complete recovery after several months' duration of the disease, and its return, to be again dissipated, entirely negatived the correctness of the first diagnosis. The complete suspension of tactile sensibility, and of the expulsive function of the bladder at the beginning of each attack, recalled the usual course of secondary sclerosis, though the rapidity with which the symptoms were renewed threw great doubt, at a later period, on the supposition. I regarded the symptoms as probably dependent on disease of the intervertebral cartilage, founding my suspicion on the obvious influence of the upright posture in encouraging the relapse, and supporting the suggestion from Mr. Aston Key's paper in Guy's Hospital Reports, 1859, and by a case from Dance, reported by Ollivier (*Maladies de la Moelle Epiniere*, ii. 326). I may take this opportunity of supplementing my report of the case by stating that the patient continues in good health.

The question respecting the primary origin of spastic paralysis relates to a different order of circumstances. It was raised by Erb in 1875; it was developed by Charcot in *Le Progrès Médical*, November 4th, 11th, and 18th, 1875, and has been again brought forward in his Lectures, recently translated. It is of course conceivable that the condition in question may result from some disease outside the pyramidal tract; but excluding doubtful examples, attention is drawn by Erb and by Charcot to a group of cases, which, in the first place, exhibit a feature at once placing them in a position by themselves, viz., that no symptoms could be discovered pointing to antecedent lesion in the brain or cord. Another phenomenon belonging to these cases, was the limitation of the symptoms, from first to last, to those referred to the motor region of the cord — "this isolation, especially," says Charcot, "whence results the monotony of the clinical picture so special to the malady, should be regarded as an element of the first order." The cases, too, are distinguished by their chronic character, by their slow evolution (extraordinarily slow in development, and very chronic in course, states Erb), and by a disposition to ascend, involving first the muscles of the abdomen and loins, and finally those of the upper extremities. The health of the patient remains good; according to Erb, the disease is met with most frequently in the robust and strong, and in those not subjected to any neuropathic influence.

The pathological foundation for the group, as a distinct class, Erb believed to exist in sclerosis of the lateral columns of primary origin; "if contrary to our expectations, the opinion shall prove to be false, the disease here to be described, would nevertheless remain as an independent, well characterised form of disease, and we should still have to search for the symptom picture of sclerosis of the lateral columns." Charcot's position is the same of that of Erb, each waiting for post-mortem examination to verify or contradict the opinion. The final verification has been furnished by Dr. Dreschfield, who has at last, by anatomical evidence, settled the question of the existence of such a disease as primary sclerosis of the lateral columns, thus far justifying the prevision of the authors I have quoted.

An obvious difficulty in establishing the diagnosis from clinical signs alone, in cases of primary lateral sclerosis, consists in the necessity of clearing the case from all probability of a dependent origin, on some pre-existing lesion; and the possibility of slowly advancing obscure disease has to be considered. Nor must it be overlooked that the originating lesion may be intracranial. Accordingly, Dr. Gowers ("Diseases of the Spinal Cord," p. 47) observes that primary degeneration of the lateral columns, limited thereto, is extremely rare, and the diagnosis can only be justified when no evidence of a wide focal lesion can be obtained, and when this affection has come on very gradually. Dr. Bramwell's position ("Diseases of the Spinal Cord, p. 216) towards the question is the same.

Cases of a chronic character, with symptoms developing very gradually, often do not come under observation until a late period, and thus we have to rely, in a great measure, on the history given by the patient, which is too often wanting in the information most needed for forming a safe opinion. My first case illustrates this difficulty, though the account appears

tolerably clear; if it be, indeed, a case of primary sclerosis, it exhibits the disease in its most characteristic form. The healthy condition of the patient, the gradual progress of the symptoms, the commencement apparently in a paretic condition of the muscles, in fatigue and heaviness of the limbs, and in difficulty of raising them from the ground, together with absence of important evidence of prior disease, agree with the general description of the malady. The reflex phenomena in the patient present a feature of interest. They represent the condition of the central organ from which the stimulus to contraction emanates, as one of incompetence to maintain the effort of the organ made to obey the excitement conveyed to it. Sustained excitement, as by the continuous current, or by exposure to the atmosphere, resulted in a series of alternate muscular contractions and relaxations effected with considerable rapidity; the movements were, in effect, a kind of clonos executed slowly and on a large scale, and afforded an interesting illustration of the nature of clonos and of tremor. As regards the cause, it appears not unlikely to be found in the frequent exposure of the lower extremities to the influence of cold and wet, at the time they were undergoing long-sustained exertion.

Case 1.—*Primary* (?) *Lateral Sclerosis.*—W. W., aged 41, married, was admitted into the Birmingham General Hospital, April 18th, 1883. He was a country postman, and had been in this employment for twelve years. It was his business to walk sixteen or seventeen miles per day, and six or seven on Sundays. He felt fatigued by the labour, but never was laid by. He was exposed constantly to a chance of getting wet on his round; his waterproof cape directed the rain which fell upon it to his legs, and then his trousers were often kept wet through the day; but he never had rheumatism, nor had he failed in health.

When admitted he had been compelled to leave his occupation for more than three years by inability to walk; but during the twelve months preceding these three years his walking had gradually become more difficult through "his legs becoming weak and from their stiffening." When questioned particularly respecting the nature of his difficulty, he stated that it was gradually increasing stiffness in his legs, which disabled him; the legs were very stiff when he got home at night, after sitting down it was difficult for him to get up again; his toes dragged on the ground in walking, and he was a great deal longer about his work than he used to be. First his legs began to ache and to feel stiff, they kept aching worse and were very tired; it took him a deal longer to get along the ground. The legs gradually grew stiffer from the time when they began to ache. He had neither pain, startings, nor tremors, it was simply the stiffness of which he complained. He has not walked for twelve months, though at present he can just reach the closet near his bed by help of the bed posts. He had no difficulty in passing urine until the last twelve months, when he has been compelled to wait two or three minutes before his water made its appearance. There has been no other fault in micturition. He has been quite free from pain in his back.

His health has been good; his habits sober and regular. He absolutely denies ever having suffered from any form of venereal disease; nor can any evidence to the contrary be obtained. The family history is quite free from any evidence of hereditary tendency except that his mother died of cancer.

I found him wearing the aspect of a robust well-made muscular man; he was lying on his back, with knees half bent, though subsequently, during his stay in the hospital, they were usually found in extension, the ordinary position in these cases. The lumbar muscles were strongly contracted, arching the back and quite raising it from the bed. Notwithstanding, however the restrained condition of his joints, he was still able to effect a small amount of movement in his lower extremities; thus he could raise his limbs from the bed; when the knee had been passively flexed, he extended it with considerable force; and he had some, though very limited, control over his ankle. The muscles of the lower extremities were generally in a state of tonic contraction, firmly resisting all movement at the joints; but there was a certain difference in the degree of contraction. It was the ham-string muscles which exhibited the rigidity in its highest degree; they were rendered by it of stony hardness, and their tendons were converted into tense cords. The adductors of the thigh were scarcely inferior in this respect to the ham-strings, it being scarcely practicable to separate the thighs; the resistance in the other muscles could be overcome. The anterior muscles of the thigh, again, were less tense than those just described, and the muscles of the calf were quite soft, though so easily thrown into contraction that the movement of the ankles was very limited. The lumbo-dorsal muscles were perfectly tense, and those of the abdomen also, though to a less degree. By no effort could the lower ribs be brought to expand beyond ¾ inch; the diaphragm acted freely. The muscles of the shoulder and neck were completely spared. No relaxation in the rigidity was observed during sleep, and the patient's personal experience confirmed the correctness of this statement. The nutrition of the muscles was excellent.

Muscular irritability was much exalted in the affected regions: when the lower limbs were first exposed to the air, they entered upon a succession of gentle flexion and extension movements. The same effects followed attempts at passive movement or handling the muscles, or tickling the soles of the feet; even contact with the points of the compasses, in testing sensibility, produced the same acts. All the phenomena were exhibited more fully on the left than on the right side.

The reflexes presented considerable departure from the arrangement ordinarily observed, as if from removal of the limitation which directs any irritation into a special channel. The tense condition of the muscles of course prevented the production of clonos, and mostly of the knee jerk; but a slight indication of the latter movement was present occasionally. Generally slow extension of the knee followed a tap on the patellar tendon, and the same effect resulted more rapidly from striking the flexor muscle of the knee, by tapping the extensor muscles, or by irritation of the cutaneous surface of the thigh. Plantar reflex was very active, but was manifested by flexure of the knee, and a hot spoon applied to the sole, was followed by the same result. A tap on the front of the left thigh raised the heel; one on the front of the right leg, flexed the ankle.

Cremaster reflex could not be produced; abdominal reflex was probably interfered with by the rigid condition of the abdominal muscles.

Electrical reaction (continuous current) manifested considerable effect by ten cells. By a strong continuous current of 29 cells, the cathode being applied to the thigh, flexion and extension of small extent at a rate of 60 per minute immediately took place; the same effect followed the application of the rheophore to the leg. With five cells a few imperfect contractions were all that ensued.

Much the same effect was produced by the employment of the Faradic current.

The channel of sensation, as in the case of the reflexes, seemed deranged. Touch on the left thigh was referred to the right, and on the right leg was referred to the leg on the opposite side. A hot sponge

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was not recognised on the left thigh; it felt cold on both legs. Cold was not distinguished as cold, on the left leg, and imperfectly on the right. There was no disorder in the function of urination. The spinal column was quite healthy to smart striking and no particular effect followed the passing of a hot sponge down its length.

It was a strange thing that having suffered for four years, he had never applied for treatment.

Priestley Smith reported a little haziness at the margin of the discs, and streaks along the vessels. The pupils were normal.

Urine was normal and so were all the internal organs. I tried the effect of scoring the back with the hot iron, but with no beneficial result. Iodide of Potassium, Bromide, and Belladonna, were alike useless. The two latter not even causing temporary relaxation of the spasm.

(*To be continued.*)

A CASE OF HYDROPHOBIA.

By H. H. CLUTTON, M.B., F.R.C.S.,
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For the notes from which the account of this case is written, we are indebted chiefly to Mr. Thomson and Mr. Cooper (the House Surgeon) who, with other qualified dressers and resident officers, were unremitting in their care and attention whilst the patient was under the influence of chloroform. And for the previous history of our patient, with the interesting details concerning the dog and cats, we are especially indebted to Dr. Bligh.

Mary J., single and in service, æt. 43, was admitted into St. Thomas's Hospital on Sunday, September 23rd, 1883, with the following history.

About the middle of last May, between four and five months ago, she was bitten on the wrist by a cat. Her friends gave the following account of this accident. She went into a house to call on some friends, and saw a cat lying crouched beneath a ladder. At all times fond of cats, she was stooping over to stroke it, when her friends begged her to leave the animal alone, saying it was mad. She, however, declared that it was ill, only because it had been starved, and did as she was warned not to do. The cat immediately flew at her, and was seen hanging from her wrist. The wound was cauterised by a chemist, and when it healed, which it did in a few days, she and her friends thought no more about it, judging that then all danger was past.

The history of rabies in the cat is as follows:—In the January preceding (1883), a strange, ill-conditioned dog had been received into the house, and two months afterwards had been destroyed, for what was thought to be rabies. He refused his food, began to snap at the feet of the family under the table, and although he continued to make great demonstrations of affection towards his master, he eventually growled and snapped at him, and was forthwith destroyed. There were, also, two pet cats in the house, and within a few weeks of the dog's death, one of them showed similar symptoms, refusing food, appearing ill, and spitting at her best friends. This cat was driven away alive, and has never been seen or heard of since. Early in May, the second cat was similarly affected, and bit our patient as described above. None of the animals were known to have been bitten by the other.

Our patient is described as being a hard-working, sensible woman, never at any time subject to illness of any kind, and not, as far one can judge from description, in the least hysterical. After the wound had healed, she remained in perfect health, doing her work till about ten days before admission into the hospital. About this time she felt some pain in the right arm, shoulder, and neck, which she attributed to rheumatism, but it troubled her so little, that she made no complaint, and went on as usual with her work till four days before she was sent to the hospital. In the evening of this day, which was Wednesday, she went to a chemist, who gave her some pills and medicine. On taking the medicine the next morning she first experienced difficulty in swallowing. This difficulty she described as a sudden current of air taking her breath away, and preventing her swallowing. On the two following days, she continued to do some of her work, but found that she could not take any fluids. Bread soaked in milk formed her chief diet, and this could be easily swallowed. She gradually became worse, and on Sunday morning, the day of her admission into the hospital, she was taken by her mistress in a cab to her friends. On the way she was seized with terror, crouched down on the floor of the cab, grasped her mistress's knees, and screamed out something about the lunatic asylum. Dr. Bligh saw her with her friends at two p.m., and found her sitting up in bed quite quiet and composed. She complained to him of her throat, saying that she could not swallow, although she was intensely thirsty. She stated also that her right arm and shoulder were very painful. After examination of mouth and throat, Dr. Bligh offered her a glass of water. She took it quite willingly in her hand, the sight and sound of water not affecting her in any way. But when she had steadily raised it to her lips, there was a convulsive gasping for breath, and a long deep-drawn inspiration. She exhibited no terror and talked quite calmly about it immediately afterwards. The relatives were then taken into another room, and questions were asked, which led to the story of the mad cat.

Before Dr. Bligh made these enquiries, no one had suspected the cause, so distantly removed, as they thought, from all her trouble. Care was taken, both then and subsequently, that she should not be informed of the supposed cause of her condition, so as, if possible, to keep her mind free from this anxiety. She had never herself alluded to it since the healing of the wound, and was, apparently, quite unaware of any connection or possible relation between the two circumstances. Dr. Bligh, after his examination, ordered her instant removal to St. Thomas's Hospital, where she arrived on Sunday evening, September 23rd.

At ten p.m., a few hours after her admission, I found her in a small ward, sitting up in bed. Before I had time to ask her any questions, she seized me by the coat with both her hands, and begged and prayed me to help her. She then suddenly jumped forward, as if about to turn a summersault, with her head buried in the bed-clothes, clutched violently at the counterpane, and then suddenly threw herself backward, grasping her throat with both hands. These movements were evidently quite voluntary, but apparently done in a kind of fury, as if the person were angry with herself. When asked to explain what all this meant, she repeated several times in a petulant kind of tone, "It won't pass." When urged again to explain what she meant, she said, "The spittle, of course." All this was done in an irritable kind of manner, which can be only feebly expressed on paper. As soon as the paroxysm was over she talked quietly and rationally, described the pain she had had in her arm, and her inability to swallow. When asked if she had been bitten by a cat some months ago, she answered, "Oh, yes! but it has nothing whatever to do with this difficulty of swallowing. It has been healed a long time."

She asked to be allowed to have something to drink, but as soon as it was brought she turned away from the glass with most unmistakable horror. She

insisted upon having a little water so that she might not see it. Finally, after many pauses and renewed efforts she seized the glass, almost tossed the water into her mouth, and as suddenly threw the glass away. A paroxysm immediately ensued, preceded by a deep-drawn gasping inspiration. But after a little while she quieted down, and was evidently pleased that she had managed to take the fauces by surprise.

It seemed, if one may attempt to explain this peculiar condition, that whenever she tried to swallow even her own saliva and so moisten the throat, which was exceedingly dry and parched, the ineffectual efforts to do so worked her up into a perfect frenzy, which showed itself in these passionate movements—for none of them could be called spasms or even convulsive attacks, but rather the paroxysms of rage that might be seen in a maniacal patient.

The next morning (the 24th) I found that the nurse on duty had been obliged to send for help, as she could not, single-handed, keep the patient in bed. She had been more constantly violent, throwing herself about in such a manner that without timely aid she would have bruised and injured herself severely. As soon as I approached the bed she was loud in her abuse of all her attendants, saying that they were cruel and brutal, taking no notice of her sufferings and not attempting to relieve her. The paroxysms of frenzy (for it is difficult to give them a more definite name) were now succeeding one another with great rapidity, leaving only a minute or two between each attack. Her mouth was full of saliva which hung from her lips in long viscid strings, and formed one of the most distressing sights I have ever seen. She had apparently ceased to attempt to swallow any fluid, although she constantly asked for water. But as soon as it was brought it was rejected. I doubt very much whether at this time there was even any effort made to swallow her own saliva. Probably the total inability to do so prevented her from attempting it. The extreme sensitiveness of the lips was most remarkable. She could not bear to have the ordinary earthenware spittoon brought near her. It invariably induced a violent paroxysm. She preferred to try and spit into a handkerchief, but frequently this was impossible, the viscid saliva hanging from her lips in such a manner that it could not be removed except by being wiped away. She would allow no one to do this for her, and often waited some minutes to summon up courage to do it for herself. She then seized the handkerchief, and with one determined effort drew it rapidly across her mouth, and in the same movement of the hand threw it violently from her. A deep gasping noisy inspiration followed instantly upon this application of the handkerchief, whilst she fell back struggling with herself and with her attendants. In the intervals between these paroxysms, she was perfectly rational in her remarks, but despondent. She felt sure she must die as she could not swallow, complained bitterly of her fancied ill-treatment, and was angry and irritable with all her surroundings.

As it was evident that the disease was so far advanced that she must shortly be worn out by these constantly recurring paroxysms, and the total absence of any nourishment, I determined to give chloroform, for the purpose of feeding, and, if she bore it well, to keep her more or less under its influence as long as it seemed desirable. This treatment was commenced at 1 p.m. on Monday the 24th, and a pint of fluid nourishment introduced into the stomach by the soft œsophageal tube. In order to reduce, if possible, the amount of chloroform necessary to keep her quiet, she had 60 grains of chloral given by the rectum. The chloroform was then only administered when the patient showed signs of returning consciousness. A qualified man sat by the bedside and watched for these signs. As the pupil began to dilate, he found the consciousness began to return, and a few whiffs of the anæsthetic quickly made her again insensible to surrounding circumstances. Thus there was never any struggle to get the patient under its influence, such as there was in the first instance, for she was never allowed to return completely to herself. She was fed again with a pint of nourishment at 4.45 p.m., and given 60 grains of chloral by the rectum. Between this time and 9.25 p.m. she required chloroform twelve times, but administered only for two or three minutes; she consequently had it about two or three times in the hour. Nourishment was again given by the tube, but the chloral was omitted, as it seemed to have done its duty. At 12.30, three hours after the last feeding, the œsophageal tube was used again for a pint of fluid nourishment, and chloral, 60 grains, was administered by the rectum. She had had chloroform ten times between 9.30 and 12.30, and for an average duration of one-and-a-half to two minutes. She slept after this for one hour and a half, and between 12.30 and 5 a.m. only required chloroform five times, but the length of administration was on the average from three to five minutes. The reason of these long intervals of freedom from chloroform, and longer administration when it was given, appears to have been the fact that the patient slept a great deal. Her condition was at this time a great contrast to that of the previous night, which was passed in most violent excitement.

At 5 a.m., September 25th, nourishment was again given by the œsophageal tube, and the urine, which had not been passed naturally since chloroform had been commenced, was drawn off. After this she slept till 6 a.m., when chloroform was given for five minutes; at 6.45 she started up suddenly and began to struggle violently, chloroform was given again for five minutes, and altogether, from 5 a.m. till 10 a.m., the chloroform was repeated ten times, varying in duration from two to five minutes. Her return to consciousness was on each occasion much more sudden, and she occasionally struggled violently and spat about the bed before quiet was restored.

At 10 a.m. a pint of nourishment was again administered, by the œsophageal tube, but a small quantity for the first time returned. She was quite quiet after this till 1.15 p.m., requiring no treatment of any kind, when she suddenly started up and tried to get out of bed. Becoming more and more restless and excited, chloroform was given at 1.30 p.m.; but the pulse became irregular and intermittent, and finally almost stopped. After trying several times with the same result, the chloroform was discontinued. She still seemed partially under the influence of some anæsthetic, probably chloroform and chloral combined. An attempt was, therefore, made to moisten her lips with a teaspoonful of milk. The mere contact of the spoon with the lips, although the patient was apparently at that moment quite unconscious of her surroundings, produced the characteristic deep-drawn inspiration, which always preceded the irregular movements before described. As chloroform could not be borne, and we wished to feed the patient as before, she was put under the influence of ether at 2 p.m., and a pint of fluid nourishment poured into the stomach by the œsophageal tube. Very little of this returned. During the afternoon she was occasionally made to inhale ether, but only to restrain her from violent movements. Again, at 7 p.m. nourishment was administered in the same way. Two or three ounces were rejected by vomiting. From 7 p.m. to 10 p.m. ether was given for a short time, at intervals of twenty minutes, when it was discontinued entirely. It appeared as if the patient had a general delirium from the anæsthetic, and a good deal of fluid in the bronchial tubes.

The question now arose, whether an anæsthetic should be given for the purpose of feeding, and if so, in

what form. I thought possibly the chloral might have produced the intermittent pulse before observed, and as I was quite determined to feed the patient every four hours, it seemed better to again try chloroform, which had at first answered so well. At 11 p.m. I began to administer the chloroform myself, and I must say the pulse "jumped about" in the most alarming manner, especially when the anæsthetic was pushed far enough to give the patient a pint of fluid nourishment. Consequently, orders were given that, as far as possible, except for the purpose of feeding, neither ether nor chloroform was to be administered. The patient was muttering the greater part of the night, occasionally struggled, and attempted to bite the hands of those that held her, but there was no approach to the violent excitement observed on the first night of admission, and she passed a considerable part of the time in quietness and peace.

At 5 a.m. (September 26th), the food was poured into the stomach as before under chloroform, but on this occasion, and for the first time, it was almost entirely rejected. From this date to her death 30 hours afterwards, there is little to record, each time she was fed the food returning by vomiting. When the bowels had been cleared out, nutrient enemata were given and retained at first, but after the first two these also were rejected. Chloroform had to be given for this purpose, but it could not be continued as before on account of the extreme irregularity of the pulse which immediately ensued on its administration. When consciousness returned, she frequently prayed to be put out of her misery, became extremely restless and almost violent, throwing herself back with the spine arched, then jumping up and trying to get out of bed. She showed a good deal of strength, although her struggling movements were not so long continued as before. There was nothing in the nature of a spasm, except perhaps the deep-drawn "catching" inspiration which was always observed whenever the lips were touched, and seemed quite a reflex phenomenon. Later in the day these paroxysms of restlessness began by twitching of the eyelids, rolling the head from side to side, followed by the same rhythmical kind of movement in the forearm, and finally the attack or paroxysm terminated by a wildly violent struggle in which the patient had to be kept in bed by force. But still none of these movements could be called spasmodic or convulsive. As these attacks seemed to increase and gave rise to great distress, chloroform was again given in the evening, and continued through the night whenever the struggles became excessive. It never produced the same continued calming effect as when chloral was being simultaneously given, but whether this was due to the action of the drug or the different stage of the disease, it is difficult to say.

It was impossible to give chloral with the same certainty as before. A dose (gr. xxx) was introduced into the rectum, with each nutrient enema, but the first only was retained, and the dose was small. They were subsequently returned within half-an-hour of their introduction. It was evident now that nothing was retained by the mouth or the rectum, that all one could do was to relieve her sufferings till she died. Certainly chloroform seemed the most humane treatment. Consequently, it was allowed to be given through the night, in sufficient quantity to keep her absolutely quiet. In three and a quarter hours fourteen drachms, by measurement, were given, and during this time the pulse remained regular and of fair strength, suggesting most strongly that the previous difficulty in its administration—namely, the condition of pulse—was due almost entirely to the chloral, for by this time the effects of the latter had had time to disappear; but, on the other hand, very little chloroform was then required to keep her quiet, whereas now she had a large quantity continuously administered. It was given on lint, so that the dose above stated must not be taken as the real amount inhaled, and one knows, too, how much more wasteful some men are than others in this method of administration. It is only quoted to show that chloroform was required in a large quantity and continuously, before it produced the same effect as when first administered in conjunction with chloral.

She died the next morning at 10 30 a.m. (September 27th), apparently from exhaustion. The struggling had ceased, and chloroform was not being given.

LIFE AT SEA—MEDICALLY CONSIDERED.

By A. HUGHES BENNETT, M.D.,
Assistant Physician to the Westminster Hospital.

It is customary with many physicians to recommend their patients, under certain circumstances, a sea voyage. This they do in the hope that the change of air and scene, the exhilarating and fresh breezes of the ocean, may effect a restoration of health and strength. It is probable that very few medical men have had any prolonged personal experience of life on board ship, hence the observations of one of their own profession who "went to sea" in an official capacity may not be altogether useless. My attention has recently been directed to this subject by the fatal result, in several painful instances, of taking invalids from the comforts and luxury of home, and sending them on a voyage, from which they never returned; and as some fourteen years ago I happened to have some practical acquaintance with a life at sea, I venture to give my reflections on the matter. In discussing this question, I propose to confine my statements to my own individual investigations in those ships and in those climates which I had ample opportunities of studying. The conclusions are based upon the experience of two years, during which time I sailed in many different ships, in every kind of weather, temperature, and climate, and at all times of the year. These voyages extended to different parts of the Mediterranean, of Egypt, India, China, and Japan. During this time I had numerous patients of all classes under my own immediate care, private individuals, public officials, invalids from the services, as well as many others sent out from England by medical men, for the benefit of their health. Every facility was obtained for visiting the hospitals and consulting the practice and opinions of medical men over a considerable portion of the world. In addition, it was part of my duty to study the advantages, and to modify the evils, of a sea life on behalf of the numerous sick under my own immediate care. On these grounds I venture to offer a few remarks on this subject, for the benefit of those who may not have had the fortune, or rather the misfortune, to acquire practical experience for themselves.

Medically considered, we have first to enquire—*Is a life on board ship a healthy one?* It is generally supposed that a sailor, *par excellence*, is the type of good health. The infallibility of this, like that of many other popular dogmas, is questionable. It is true we meet many seamen who are admirable specimens of a robust constitution, as we do in all trades, no matter how unhealthy. It is equally certain that on looking over the crew of a ship, we see only strong vigorous men. But it cannot be argued from this that a life on board ship is *per se* favourable to health. If these sailors were not in all respects sound, active, and able to do hard work, they would not be afloat, and when their articles expired, which they do at short intervals the individual failing in any one of these qualities would be discharged. Here, as in all public services, we see actively employed on duty only those who are in the highest state of physical development, and who

are suffering from no ailment or disease. But we must not forget all those who have been invalided, those who are constantly being weeded out through sickness, those who have given up the sea as a profession from inability to combat with its hardships, and those who have died from disease aggravated or even produced by a nautical career. The advantages to health that a sea life is supposed to possess may be summed up in the fact that the sailor breathes pure air, free from the contaminations of animal and vegetable life, to which may be added the theoretical tonic effect of the oceanic breezes. On the other hand, there are most serious disadvantages. He is compelled to sleep in an ill-ventilated forecastle or cabin, closely packed with a number of other men, where for many hours he inhales a foul and vitiated atmosphere. His food must be more or less faulty, consisting of salted or preserved meat and vegetables. His exercise is limited. He is exposed to sudden changes of temperature and climate, to damp and wet, to boisterous and unpropitious weather, none of which he can avoid or modify on board a ship. All these may injure the constitution, and sow the seeds of disease. It is impossible, in a brief consideration of the question, to enter into all the maladies to which seamen are subject, or to prove by statistics the mortality among those who follow that calling, as compared with men under different conditions. It is sufficient to say that it is doubtful whether a life on board ship is so healthy as is generally supposed; that, further, it requires the strongest and most robust constitutions to withstand its adverse circumstances, and that although there may be not a few who, pursuing this occupation, reach a ripe old age, there are many who succumb to its unfavourable influences.

Is a Life on Board Ship suitable for Invalids?—To us as physicians on shore this is the question which is of the greatest interest and importance, and on this subject it is believed that much misconception prevails both amongst the profession and public. It is imagined that if a man is in any way ill or suffering from chronic disease, if his means permit, he should be sent a voyage for the restoration of his health. I consider this, in the large majority of cases, to be erroneous in theory as it is fatal in practice. It can be readily understood that an individual indisposed from overwork, nervous excitement, functional derangement, or other temporary affection, would be greatly benefited by a trip for a few weeks in a yacht or sailing vessel. All he requires for his recovery is change of air, scene, and society, with absence from occupation and care. Or a patient having become convalescent from a fever or acute disease, might doubtless by such means be invigorated or even entirely reinstated in his former health. But that any one suffering from chronic disease, or from more than temporary or functional complaints, should make a ship his home for hygienic reasons, appears as a rule to be most unsatisfactory, and generally proves most injurious to the condition and well being of the patient.

The position will be best understood by an example. Let one of those cases specially supposed to derive benefit from a sea voyage be taken, namely one of incipient phthisis pulmonalis. Let every possible advantage be given him, and assume that he is on board a first class ship, supplied with every convenience and comfort, that he has an experienced surgeon to attend him, and wealth to procure every desirable luxury. What is his position? His field of action is limited to a ship. He has at his disposal, or probably shares with one or more other passengers, a cabin about eight feet by six in size, where he sleeps and dresses, and which constitutes his sanctum. This is always so constructed that it is open on all sides in order to have free ventilation, and that the inmates may have as much fresh air as possible. During the voyage the patient is at all times liable to exposure of every kind, to sudden change of temperature and climate, extremes of heat and cold, damp and wet, wind and boisterous weather, sea sickness, improper quality of food and drink, deficient exercise, &c., without any means of regulating or diminishing the discomfort and misery attendant on all or any of these evils. In cold weather our consumptive has no means of keeping himself warm, and accordingly he is compelled to shut himself up in his cabin. Here he is either subjected to violent draughts, or, if he partly obviate these, he is obliged to breathe a close and contaminated atmosphere. If to avoid this he attempts, well clothed, to go on deck, he suddenly emerges into cold, bleak, damp winds, which will under no circumstances improve the condition of his cough or lungs. In hot weather he is exposed to the opposite extreme, and has no means of keeping himself cool, and if his vessel be a steamer, the constant heat thrown out all over the ship by the enormous furnaces do not serve to enhance his comfort. This high temperature causes him to perspire freely, to become weak and languid, and to lose his appetite, all of which are of course very injurious to a phthisical patient. In temperate weather he is certainly more comfortable; but equable and agreeable weather for long together is not very common at sea, there being usually a tendency to wind, rain, and other phenomena, which, however bearable by a healthy man, prove very deleterious to the sick or diseased. The patient under these conditions will find it very difficult to avoid damp and wet. On deck this may arise from the constant exhalations from the ocean, from rain, spray, or a sea washing over the deck. If in order to escape these he retires to his cabin, even in the best ships this will probably leak to a certain extent, and if made taut, it will be close, damp, and disagreeable. In rough weather, for the same reason, he cannot remain "above." "Below" he is miserable. While the ship is "knocking about," he cannot walk or otherwise exercise himself; he is probably sick or nauseated, which prevents him taking nourishment for days or even weeks together, and the rolling of the vessel causes him to lose his sleep. It is not necessary to particularise more fully all the petty discomforts on shipboard, such as the shouting and noises at unseasonable hours—if in a steamer the constant vibration of the engines, and the horrors of coaling at every port—the working of cargo, washing the decks at 4 a.m. every morning, restless nights due to crying children, occasional storms, and a host of other annoyances and troubles. These often cause an ordinary passenger to realise that the poetical idea of "a life on the ocean wave," has perhaps been somewhat overrated.

Under these circumstances the surgeon is called in. Let us assume him to be skilful and attentive. The means of relief at his command are, however, both limited in quantity and defective in kind. On an emergency, general attendance in the shape of an experienced nurse is wanting. The food must of necessity be more abundant than delicate in quality, and all the little luxuries, and even necessaries, which an invalid requires, such as milk, fresh eggs, &c., are always difficult or even impossible to procure. Added to all these discomforts, there is a monotony about a life at sea, a want of employment both for mind and body, which must be greatly to the disadvantage of any patient. He has little or no resources, and of those few at his command he soon wearies. He feels unsettled and uncomfortable, he longs for home faces and comforts, and thus *ennui* becomes a serious addition to his already existing malady.

These unfavourable conditions are not peculiar to any vessel or class of vessels, but are inherent and unavoidable in a life at sea, of whatever size, kind, or quality the ship may be. If those enumerated above

are a few of the drawbacks attendant upon vessels of the highest class, the position is not improved in those of a second or third-rate order. What it is desired most particularly to point out is, that while all these annoyances and deficiences may be bearable or even acceptable to the healthy, they are fatal to the comfort, happiness, and recovery of the sick or diseased.

It may be said that, in discussing this subject, the part of a special pleader has been taken, and that the evils attendant upon a sea voyage have been exaggerated. I have no special object in supporting one side of the question more than the other, beyond the interest common to all medical men, of attempting to determine what is best for the patient. I only endeavour to record without prejudice, what was ascertained by my own personal observation and experience. Having had to treat many cases of pulmonary, cardiac, hepatic, and other diseases on board ship, and consequently having had ample opportunities of appreciating the difficulties attendant thereon, I have come to the conclusion that patients requiring the usual accompaniments and necessaries of the sick room, are entirely out of place at sea, and that those suffering from any serious or organic disease are likely to receive more harm than good in submitting themselves to a ship's discomforts. It will be urged, that many persons have greatly profited, and have even completely recovered, by taking a long sea voyage. It is granted that under certain circumstances, in special climates and temperatures, at selected seasons of the year, some patients may have been benefited, but it is maintained that this is the exception, as prolonged favourable surroundings are unusual on board ship. On the other hand I have repeatedly seen persons whose symptoms became worse the moment they were exposed to a sea life, and whose premature death on board was, I believe, in great part owing to the peculiar circumstances in which they were placed.

It may be further said that no physician would think of recommending a sea voyage to any patient who was seriously ill. I can only say that when aboard, scarcely a month passed that I was not called upon to attend two or three individuals suffering from organic disease, who had been sent from England by their medical attendants for the benefit of their health. Moreover, in discussing this question with various members of the profession, the opinion seems to be very prevalent that, in many cases of this nature, a sea voyage is to be highly recommended. They are quite conversant with all its supposed advantages, but they entirely ignore its discomforts and deficiences. To sum up, I believe that persons suffering from overwork, temporary ailments, and functional diseases, as well as convalescents, may derive benefit from a short trip to sea, in a good climate, and at a seasonable time of the year. But I am strongly of opinion that invalids, properly so called, afflicted with organic disease, are in the great majority of cases rather injured than improved by a life on board ship, and that the physician should be very careful in recommending his patient to encounter the hardships of the sea.

CURIOUS CASES OF ANEURISM.

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Surgical aneurisms, that are indicated by expansile pulsation, or that manifestly collapse and refill as the blood-stream is shut off or allowed to flow, are so well known, and so common, as to cease to be interesting.

Medical aneurisms are just as common and, when the pressure effects are distinct, are just as easily diagnosed and as uninteresting as are surgical aneurisms.

I do not, therefore, intend to refer to the ordinary cases of aneurism in this paper, a great many of which I have examined both before and after death, but only to those cases in which the disease produced curious symptoms during life, or presented pathological curiosities after death. Nor even in these cases do I intend to refer to all the ordinary symptoms observed, or to give daily notes of the progress of the lesion; my object is rather to sketch the ordinary outlines, so that they may be easily filled in by the experienced reader; and to render prominent the interesting points so as to prevent them being lost sight of in the midst of dry details that very few have the courage, the patience, or the time, to read through.

Case 1.—*Aneurism in Hunter's canal occurring in a lunatic—Ligature of femoral—Sac opened surreptitiously by the patient—Pyæmia and death—Post mortem.*

James R., æt. 48, was playing with a chisel and hammer when he was fourteen years of age. He accidently cut himself on the left thigh above the knee, and from the cut there resulted a traumatic sacculated aneurism of the left femoral artery in Hunter's canal. The aneurism does not seem to have given the patient much trouble until lately, either by its size or by its effects. He has been for several years a lunatic, an inmate of the Lancaster Asylum, and a pauper, belonging to the parish of Liverpool. In the beginning of 1881, the aneurism began to enlarge rapidly, and in March its appearance was so serious that he was transferred to the Liverpool Workhouse Hospital for operation. On March 26th I tied the superficial femoral at the usual place. The pulsation immediately ceased, and the operation wound healed as quickly as a wound could heal that is constantly disturbed by its owner, who wishes frequently to see how it is getting on. The aneurism was gradually subsiding, although not so rapidly as the patient desired, if we may judge from his frequent importunity "to have it opened and the matter inside let out." The terrible consequences of such a procedure were again and again impressed upon him, and the leg was wrapped in cottonwool to keep the tumour out of sight. He was carefully watched both by day and by night.

In the second week in July, he had become, apparently, more contented and acquiesced in the belief that time would make him all right.

On July 14th, he was grinning with pleasure as we approached the bedside, and called out, "Now I will soon get well, the lump is open at last." When the leg was exposed, a small ragged hole was found on the summit of the aneurismal swelling, whence some red grumous material was exuding. On accusing the patient of tampering with the wound, he readily admitted that he had done so, and showed an old nail that he had picked up, polished and sharpened for the purpose, when he was unobserved. The whole mass of blood-clot in the aneurism rapidly became putrid, and the patient died on August 19th from pyæmia and hæmorrhage. Free incisions and antiseptics relieved him for a time, but the evacuation of one putrid cyst was soon followed by the formation of another in the softened infiltrated tissues of the enormous calf of the man who was about 18-stone weight. When death at last threatened, amputation was out of the question, and even when the puncture was discovered it is questionable if amputation at the hip would have been justifiable on a patient so oppressed with "blubber," although, as the case turned out, it would probably have afforded him the "best chance."

On *post-mortem* examination the common femoral was a fibrous cord. The aneurism was irregular in shape, without any defined wall, and contained much débris, and suppuration material. The liver was loaded with fat, and was broken down by pyæmic foci at numerous spots.

Case 2.—Cerebral softening and paraplegia—Undiagnosed aneurism the cause of both.

Henry S. F., æt. 45, a collector of parish rates, became sick in the beginning of 1878. Dr. Shearer, who then attended him, described him at that time as suffering from symptoms of softening of the brain, such as partial loss of power over the limbs, with normal sensation, a feeling of numbness, loss of memory, apathetic manner, inability to read, incontinence of urine, and outbursts of passion. There were no symptoms of chest disease.

On May 28th, 1878, a consultation was held on the case between the ordinary medical attendant and a distinguished physician. The patient had now become partly imbecile. He sat tearing paper into bits, scattering these about the room, and sometimes he would destroy valuable things. He was violent at times, and his wife was now recommended to have him sent to a lunatic asylum. The cause was then supposed to be worry, arising from unsatisfactory family affairs.

I saw him officially soon after this, and agreeing with the diagnosis of his previous attendants, I recommended him to be invalided. During the next six months he remained in a very pitiable condition; restless, discontented and objectless, feeble in his legs, his dribbling urine rendering him odorous wherever he went. His mind soon after this began gradually to clear, and he was able to resume some botanical work of which he was very fond. His limbs got a little stronger, and his urine troubled him a little less. He so far improved as to be able to talk rationally, and it began to be whispered amongst his acquaintances and fellow rate-collectors that F. was all right, and that he had been malingering all the time.

On several occasions I had examined his chest for aneurism, but could find no evidence of anything being the matter with his vascular system.

On March 18th, 1881, his son came to say that he had been found dead in the street, with blood pouring from his nostrils. This information at once supplied the key to unlock the whole case. I obtained liberty to make a small opening into the chest, and found an aneurism in the lower part of the thorax that had eroded the bodies of tenth and of the adjacent dorsal vertebræ to such an extent as to open the spinal canal on the right side. The aneurism covered the bodies of the vertebræ on both sides.

It is possible there may have been two diseases here, viz., an unhinged mind from mental troubles, and partial paraplegia with urinary incontinence from aneurismal pressure. It seems to me more probable, however, that the discomfort of the aneurism in its early stage, and the pressure on the sympathetic nerves, produced the cerebral symptoms, and that these disappeared when irritation of these nerves had been followed by their destruction.

The position of the aneurism between the liver and the heart rendered its diagnosis almost, if not quite, impossible, especially as its position was unmarked, either by a murmur or by pain. Any increase of dulness there could not be separated from the cardiac or hepatic dull areas, whilst the diagnostic value of the paraplegia and urinary incontinence was depreciated by the cerebral symptoms that led us to ascribe them to degeneration of brain tissue.

Case 3.—Aneurism of common femoral—Ligature of external iliac—Cure—Subsequent death and post mortem.

David H., æt. 29, admitted on October 8th, 1880. He does not remember any infantile complaints, and never had any serious illness until *three weeks ago*, when his left leg began to swell. He continued to work up to *three* days before admission. When admitted, he was suffering from erythema and œdema of the left leg as far as the knee, and complained of a stabbing pain from the knee to the ankle whenever he put his foot to the ground. On looking higher for the cause of the disease, an aneurismal tumour was found on the line of the common femoral artery, measuring 11½ inches in circumference at the base, and 2½ inches in vertical height. Surprise was expressed at the rapid growth, and at the unconsciousness of the patient of the presence of this tumour, but he persisted in his assertions that both facts were true.

On October 15th, the external iliac artery was tied, under antiseptic precautions, by means of carbolised catgut ligatures. The wound healed readily, the aneurismal tumour subsided gradually, and, with the exception of a threatening of gangrene of the toes that appeared on November 20th and immediately passed away, the after-treatment of the case was uneventful.

He was discharged at the end of the year, with a small nodule, the size of a marble, at the seat of the aneurism. This nodule was firm and painless, and did not pulsate.

I did not see the case again until November 8th, 1881, about thirteen months after operation. He was then on the *post-mortem* table, having died from an aneurism of the aortic arch that opened into a bronchus and produced death from pulmonary hæmorrhage, whilst under the care of my colleague.

The aneurism of the common femoral was collapsed to a small flattened sac, half an inch in its greatest diameter. It contained a small inner fibrous mass or sac, which occluded the openings of the numerous branches of the common femoral that issued from the aneurism. These branches contained fluid blood quite up to their origin, this fluid blood beating, as it were, against the outer surface of the intra-aneurismal sac. The artery leading to the aneurism was occluded at the seat of ligature by being converted into a fibrous cord. The artery between the ligature and the aneurism was merely collapsed, its thread-thick lumen being filled by a faint cord of fibrine unattached to the interior of the collapsed vessel.

Case 4.—Pulsating tumour of orbit—Ligature of common carotid—Relief and cessation of pulsation—Epilepsy—Death subsequently—Post mortem.

Catherine Murphy, æt. 24, was admitted to the medical wards of the Liverpool Workhouse on April 27th, 1882. She came under my care on May 23rd, 1882. The sight of the left eye became impaired after scarlet fever, two years ago. Five months since, the sight of that eye was completely lost. She has noticed the pulsation and protrusion of the eye for some time.

On admission, there was considerable proptosis, complete blindness, and fixed pupil. The pulsation above the eye and beneath the upper lid was very distinct, and on deep pressure some hard irregular bodies were felt deep down in the orbit. Pressure on the common carotid produced complete cessation of the pulsation, which lasted as long as the pressure was kept up. The sight of the other eye was good.

On May 24th, the common carotid artery was tied at the usual place, under antiseptic precautions, with ordinary catgut ligatures. When she awakened from the anæsthetic (chloroform), she declared she could see better already, and was able to discern the white ceiling; the pulsation had completely ceased, the eye had receded, and between the roof of the orbit and the eyeball there could be felt hard irregular masses, assumed to be coagula, but without sufficient reason. The operation wound healed without any trouble.

On June 7th, the patient thought the eyesight of the left eye was getting a very little clearer. She could see a little better on clear bright days than on dark dull ones. On June 15th, she had an epileptic attack, succeeded

by seventeen others during the next eight hours. The face was most affected by the convulsions, but the whole body participated in the movements. The patient was unconscious on the 16th, and did not recover until after profuse movement of the bowels, the result of a large enema. Her temperature before the enema was 103°.

June 27th. The patient became very noisy and excited to-day, and on two occasions attempted to strangle herself with a bandage. On July 4th, the same kind of excitement was observed, followed by another attempt at strangulation. On July 23rd and 27th, and August 3rd, she passed through similar excitable moods to those described, without, however, attempting suicide. She was sent to the infirm wards on November 3rd, on account of want of room, where she stayed till June 12th, 1883, the date of her death. Complete blindness of both eyes took place during that time, the epileptic seizures occasionally occurred, and the epileptic mania more frequently. Helplessness and inability to attend to nature's wants preceded the comatose state in which she died. The pulsation never returned in the left eye.

The *post mortem* was made on June 14th. The calvarium was beautifully thinned all over through intra-cranial pressure. The bone just below the frontal eminences was completely absorbed. The left supra-orbital arches had also disappeared, and the roofs of both orbits were absent, so that the orbit and its contents were plainly visible when the brain was removed. The cribriform plate was absorbed, and the nasal cavities exposed from above. The left optic nerve was stretched to about twice its length between the optic foramen and the entrance into the globe of the eye. It was, to a corresponding extent, thinner than usual. The right nerve was slightly stretched and thinned, and there was some proptosis of that eye.

The contents of the orbit were otherwise normal, the diseased mass being entirely outside these cavities.

The anterior lobe of the left side of the brain was entirely occupied by a large greyish vascular tumour, that made that lobe seem twice its normal size. At the inner side an offshoot of the growth occupied the anterior part of the longitudinal fissure pressing behind on the genu of the corpus callosum, and to the right, burrowing beneath and producing absorption of the right anterior lobe. The disease had infiltrated the anterior part of the left corpus striatum, and of the corpus callosum.

The common carotid was occluded up to the ligature. The internal carotid was pervious. The other organs of the body were healthy.

A NOTE UPON TREATMENT OF FRACTURES IN THE VICINITY OF JOINTS BY PLASTER OF PARIS BANDAGE.

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Attention has lately been called to the utility of the practice of the immediate employment of the plaster of Paris bandage in ordinary fractures of the limbs. The appropriate cases were so fully described, the methods of application so well illustrated, by the eminent authorities who brought the subject forward, that it would seem that little remains to be said on such an important branch of treatment. My object is simply to lay stress upon the value of this method when applied to fractures in the vicinity of joints, which, as every practical surgeon knows, are often dubious in their diagnosis, tedious and difficult in treatment, and, perhaps, unsatisfactory in result. I will confine my remarks chiefly to fractures in the neighbourhood of the shoulder and ankle, which will serve for purpose of illustration, and being injuries commonly met with, are important to treat easily and well.

The student, or practitioner, must be struck, on reference to the ordinary text-books, to see the number of contrivances that are suggested for the treatment, let us say, of the common extra-capsular fracture of the humerus. All the methods aim at the grand principles of adaptation of fragments, and complete rest, yet how prone they all are to fail in carrying these out to perfection is proved by daily experience, and the very number of the methods suggested, as well as their different nature. Turning to the familiar Potts' fracture in the lower extremity, it must be granted that in really bad cases it is extremely difficult to maintain quietude and good position by means of splints. An anæsthetic is given, or, by manipulation, the fragments are restored to their proper position, but in keeping them in that position there is often the greatest difficulty. The pressure exercised by the bandages and splints upon the œdematous parts becomes risky, the position is irksome to the patient, the pain is unendurable, movements on the part of the sufferer ensue, and when the surgeon views his carefully adjusted fracture, the sharp broken edge of the inner malleolus will still, to his dismay, be seen projecting against the skin and threatening further damage.

Indeed, a very great deal depends upon the conduct of the patient; with an unruly, irritable, or delirious individual, the difficulties of the splint treatment become vastly increased. How often have we heard the surgeon say in such cases, "if he throws himself about in that way, the fracture will soon become compound!"

All the difficulties arise from one great cause, the impossibility of securing a good hold upon both parts of the fractured bones. Splints can not well be applied from the contour of the parts; a nearer approach to the right method is in the gutta-percha or leather case, and did this accurately fit, perfectly hold the limb, and remain quite immovable, everything would go smoothly.

In considering the fitting of plaster of Paris bandage to a fracture near a joint, we must first attempt to lay down some rule for the time of its employment. If there be no great swelling, or contusion of the soft parts, it may be used at once, but in the majority of cases, I think it better to wait for about a week, until the extravasated blood shall show signs of absorption, and the inflammatory swelling begin to subside. During this short time the part can be supported in some suitable temporary apparatus, and evaporating lotions applied.

On the subsidence of the swelling a more certain diagnosis, and accurate idea of the relation of the fragments, can be obtained. When the surgeon has determined to adopt the more permanent apparatus, he collects his materials; these are simple.

The skin must be protected by a flannel bandage, which is applied evenly and smoothly over the whole part. Should the skin be abraded, a simple ointment may be spread beneath the bandage, cottonwool may be used over any part or projecting fragment.

Half-a-dozen bandages rolled in dry plaster are now prepared. The material is most important, it should be the coarsest muslin, so that the plaster and moisture may easily permeate the whole mass when adjusted.

The bandages should not be more than two inches in width; a narrow bandage can be made to fit and insinuate itself into the inequalities of a part in a superior manner to a wide one. Some loose dry plaster in a basin, and plenty of warm water, are all the other things needful.

The surgeon having applied the protecting flannel, proceeds to the "setting" of the fracture. In doing this he should use the greatest care and gentleness, and grudge no time or caution. It is often well to employ an anæsthetic; a more certain opinion can then be formed of the injury, while the released muscles allow the broken bones to move about freely, and they crepitate between the hands of the operator, who may place them in the most accurate position.

Now comes the work of the assistant, and this though simple, is hardly second in importance to that of the principal operator. He has to hold the fracture in *exact position*, during the application of the apparatus. In some cases he may have to make extension as well, but he should ever recollect, that he must not let his attention flag, or his muscles relax from the work he is doing, or else the fracture will tend to again assume its faulty position, and be so fixed by the plaster of Paris. More failures occur from the employment of a careless or untrustworthy assistant than may be generally supposed. One of the bandages, rolled in plaster, having been well soaked in warm water is now to be applied firmly, not tightly, from below upwards. Over this a layer of loose dry plaster is laid, which is then well wetted and rubbed in with the hand. Another bandage is now applied over the first, and upon this dry plaster again sprinkled, well wetted, and moulded with the hand.

Five layers of the muslin usually suffice to give strength and solidity to the apparatus, and the result is not a heavy cumbersome mass, which, difficult to remove, irksome to the patient, has so often brought discredit upon the method and operator, but a light shapely splint which quite fulfils its object, and is a source of the greatest pride and comfort to the patient. It must be remembered that the plaster soon "sets." In fact, after the application of the third layer, the assistant will begin to feel that the fracture is being held in its new position. He must not on that account relax his attention, but, if possible, rectify any slight displacement in the axis of the limb, or of the fracture, that he may notice before it becomes too late. It is also most essential that the plaster be well wetted and moulded together, the splint then forms one harmonious whole, and does not crack or give way. The apparatus may be removed in five to six weeks, and passive motion cautiously commenced.

The advantages I claim for this mode of treatment, when properly carried out, are not a few.

The country surgeon may apply it with the greatest ease, as all the materials can be carried any distance in a small parcel. When once the apparatus is applied no efforts on the part of a delirious or troublesome patient can displace the fracture, therefore it is most useful in the very cases where movable contrivances fail. It is exceedingly comfortable to the patient since it prevents any movement of the broken ends of the bones. Lastly, the result is satisfactory, for as complete rest is maintained, the fracture unites the sooner, and without those masses of callus which so impede the after functions of a joint, and without the chronic inflammatory changes which implicate the tendons and muscles. Consequently, passive motion may be earlier and more successfully carried out, to the credit of the surgeon, and ultimate great benefit to the patient. I am confident that if practitioners would more generally adopt this line of treatment they would feel every reason to be satisfied with it, and would say with me, that it bears favourable comparison with any other.

AMENORRHŒA AND VICARIOUS MENSTRUATION.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society.

I HAVE read, with that pleasure which their writings always give me, the recent observations of Drs. Matthews Duncan and Wilks on the above subjects. I agree with Dr. Wilks in considering that their just views on the former condition are quite in accordance with those of the best observers of our time; but, while I, of course, do not believe that the function of menstruation can be transferred from its proper organ to the lung or stomach, or to an ulcer on the leg, I know that women who do not menstruate normally, are liable to discharges of blood or hæmoglobin after modes which do not obtain in the male. I think that, in his student days, Dr. Wilks must have been told by Mr. Callaway, in the out-patient room—"Look, my dear fellow, that is a menstrual ulcer." I do not know by what name these ulcers are now recognised; but, assuredly, they were never seen in men. Their appearance was so characteristic as to distinguish them, at a glance, from all other sores, and their discharge was not pus, but a cruor of a dirty damson colour. I have more than once seen plum-juice expectoration in women who were "irregular," but who had no organic pulmonary or cardiac disease. One of these patients, an East Indian lady, whom I attended more than 30 years ago in such an attack, and in whom there was no sign of heart-obstruction, and no concurrent evidence of tubercular or lung mischief, came to England a few years ago, and is, I believe, still residing in my neighbourhood. The late Dr. Duncan Stewart, Professor of Midwifery in the Calcutta Medical College, published in vol. 3, p. 47, of the *India Journal of Medical Science*, the case of a French woman who had alarming hæmoptysis. This "was found to be connected with menstrual obstruction and enlarged spleen. The discharge continued three days. She brought up two pounds of blood. Two relapses had occurred. For a day or two before the bleeding began, the spleen became enlarged, and felt heavy and painful, causing nausea and faintness when the patient walked." It must here be recollected that, in India, women who have great splenic hypertrophy or confirmed malarious anæmia, are generally amenorrhœal. I do not regard these voidings of disintegrated blood as in any valid degree compensations for the suspended menstrual function. Still I cannot doubt it to be a fact that women in whom this function is inadequately performed are liable to sanguinolent oozings from various surfaces.

THE CHINESE AS PATIENTS.—According to Dr. Brown, of San Francisco, the Chinese must make very good patients, for they invariably carry out instructions to the letter, are very grateful, and always pay their bills. Constipation is almost unheard of amongst them. Their children are usually much smaller at birth than white babies, six pounds being an average weight. They use paper on the lying-in bed as a protection, and thin paper as napkins for the lochia. It has the appearance of a muslin fabric, being thick and soft, and is prepared from a stout paper of a light brown colour, smooth, and bearing no resemblance to that in use. It is prepared by simply crumpling and rubbing it with the hands. Being tough and thick, it is completely transformed by the process and makes a soft fabric, almost impermeable to water, and admirably fitted for temporary protection of the bedding, one sheet being replaced by another as soon as it has become soiled. Lacerations of the cervix are very rare among them.—*New York Med. Record*, January 5th.

Medical Times and Gazette.

SATURDAY, FEBRUARY 23, 1884.

THE subject of over-work in elementary schools still excites, we are glad to see, a considerable amount of attention in Parliament. From a statement made by Mr. Mundella, we learn that it is true that Her Majesty's School Inspector for Southwark has reported that fourteen certificated teachers in his district had broken down from over-work under the new Code; and that two of them had died. The report has been forwarded by the Education Department to the London School Board, and the statements made in it are being strictly investigated. Mr. Mundella has also invited Dr. Crichton Browne to visit some of the "public elementary schools of London," meaning thereby, we suppose, the School Board schools, and to give the Education Department the advantage of his opinion as to their work from a sanitary point of view. Mr. Mundella is instituting, he assures us, the most careful and searching enquiries into the allegations of over-pressure in these schools, and will communicate the results to Parliament. It is to be hoped that the investigation will be most impartial as well as thorough. Up to the present Mr. Mundella has, apparently, been quite unable to conceive that the Code can be in any way at fault.

THERE appears to have been some degree of misunderstanding as to the purposes to which the proposed hospital at Winchmore Hill is to be devoted. The Southgate Local Board strongly object to the proposal of the Managers of the Metropolitan Asylums District to purchase the above-mentioned site for the erection of a convalescent hospital, and have besought the Local Government Board to refuse to sanction the project. The Local Government Board, however, do not agree with the views of the Southgate Local Board, and have assented to the proposals of the Asylum Managers; and according to the statement made by the Parliamentary Secretary of the Board, Mr. G. Russell, in answer to a question put in the House of Commons, it appears that the ground, or the main ground, was that the proposed hospital is to be for convalescent fever patients only, and not, as had been thought, for convalescent fever, and small-pox patients. We think that, as the site concerned comprises more than 36 acres, the Southgate Local Board need not have opposed the erection of the hospital, even had it been intended for the use of small-pox convalescents as well as for convalescents from fever.

SOME of the Irish Members of Parliament display a really marvellous capacity for hunting up mare's-nests, upon which they may found questions in the House of Commons; and not a few relate to suspected or alleged evil-doings of medical men. Two of the questions put on Monday last are typical examples. One Irish M.P. asked whether it was true that three prisoners in Belfast Gaol had died within the past month? how long they had been ill? and why the medical officer did not recommend their release. The reply, by that much enduring official, Mr. Trevelyan, was that one prisoner had died in the prison mentioned within the last month; that he was under treatment for a fortnight before his death; and that his release had not been recommended because the medical officer did not consider that his illness was either due to, or aggravated by, confinement, and did not think that he would in any way benefit by being discharged. Mr. Trevelyan added, as a proof of the healthiness of the gaol, that prior to the death of this man, no death had occurred in the prison since May, 1882.

ANOTHER Irish Member, who ought to have known better, made, or implied, an attack on Dr. George Sigerson, a very well known Dublin physician of high scientific and literary attainments. Mr. Trevelyan was asked whether Dr. Sigerson was the writer of many articles of a seditious nature in the *Irishman* newspaper, and was believed to have acted as sub-editor of that paper during the imprisonment of Mr. Pigott, and whether he had been appointed to a position of trust and influence by the Government. The answer was that Dr. Sigerson denied having written any articles of a seditious nature, and denied having been sub-editor of the *Irishman* during Mr. Pigott's imprisonment, which had occurred seventeen years ago; and Dr. Sigerson further declared that he is not, nor has for a considerable time been, a contributor to any newspaper. He is a member of the Royal Commission to enquire into the administration of prisons in Ireland. That is the only appointment he holds in connection with the Government; and Mr. Trevelyan very rightly observed that Dr. Sigerson's position in the profession, and the special attention that he has given to matters concerning the public, amply justified his appointment by Government to the post he holds.

MR. RICHARD'S Bill, to amend the law relating to cemeteries, has not the slightest sanitary significance. Its object is to relieve burial authorities from the existing obligation to divide burial grounds into consecrated and unconsecrated parts. The Bill does not prohibit the consecration of cemeteries or of chapels, should Bishops think fit to consecrate them; but it would forbid cemetery authorities to apply for the consecration of a cemetery, or of any part of one, or for the consecration of any building within, or in connection with any cemetery; and it would enact that "every cemetery and part thereof, and building therein, shall, whether consecrated before or after the passing of this Act, be as available for burial services otherwise than according to the rites of the Church of England, as though it had not been consecrated." It would appear that so soon as any portion of a burial ground, or any chapel in a burial ground, is consecrated, it thereby acquires a special value in the eyes of those who are not themselves believers in the rite of consecration. It becomes a Naboth's Vineyard to them while living, and they desire to have the right to go in and possess it even when dead. As the great

object of the Bill is to minimise the value of consecration so far as concerns cemetery arrangements, it is satisfactory to find that Clause 13 prohibits the removal of corpses from any part of a cemetery without the consent of a Secretary of State, and the use of a cemetery for any purpose other than that of burial without the authority of Parliament.

At the Medical Society on Monday last, Dr. Sidney Coupland opened a discussion upon the cold-bath treatment of enteric fever. He began by remarking, that treatment might be pursued on three distinct lines: the specific, the expectant, and the anti-pyrexial. As regarded the first, he said the specific poison or germ was not sufficiently understood at present to allow of any definitely specific treatment. The expectant method was that most in vogue; this, of course, included such anti-pyrexial methods as were administered solely with a view of relieving excessive temperature. The treatment of typhoid by cold, upon which Dr. Coupland mainly dwelt, was first systematically advocated by Brand, of Stettin; it differed from the expectant in recognising the direct danger to life of long-continued pyrexia, and had for its object less the mere *reduction* of excessive temperature, *than the maintenance* of a diminished febrile process *throughout* the whole course of the disease.

The three methods most in use in this plan of treatment were, he said, sponging, cold compresses, or ice-bags, and the cold bath. Dr. Coupland gave good reasons for preferring the last named in severe cases, reserving the other and milder methods for cases in which the bath, for some reason or other, could not be had, or was specially contraindicated. After giving a comparative analysis of the fatal cases, as to period and cause of death, he showed that, at the Middlesex Hospital, where anti-pyrexial treatment had been more or less systematically carried out of late years, the gross mortality due to pyrexial causes had been notably diminished. His personal experience, however, was based on 89 consecutive cases, of which seven were fatal, treated in his wards from 1879–1883. Of the fatal cases, one only was directly due to pyrexia. He contrasted these 89 cases with 75 others (admitted during 1873 before any systematic anti-pyrexial treatment was pursued), of which nine were fatal, four of these deaths being due to the effects of high fever. Illustrative cases were related, and special attention was directed to the leading points in each of his fatal cases, the object being to show that death occurred mostly from intestinal lesions, in cases admitted late on in the disease or during relapses; and that the fatal issue could not be attributed to the bathing.

Dr. Coupland believed that if this treatment were commenced early enough, and systematically carried out, it might possibly abort the fever: but failing any control over the intestinal lesions that it undoubtedly allayed the nervous symptoms, practically banished the "typhoid state," lessened the tendency to sequela, and materially hastened convalescence. He particularly urged that this treatment was not generally contraindicated by the asthenia natural to the febrile state, nor by pulmonary complications; and that it did not appear to increase the liability to intestinal hæmorrhage or perforation, which, when found, obviously depended on the extent and severity of the local lesions peculiar to, and characteristic of, enteric fever.

Dr. Bristowe followed with a paper, in which he argued against this method of treatment. He stated that he had abandoned it some years ago, being chiefly influenced thereto by two severe cases of fatal lung collapse, which he attributed directly to the baths; he believed also, after considerable trial, that it had been abandoned by many other practitioners. He contrasted with this mode of treating typhoid patients the antimonial and calomel treatment of pneumonia and other inflammations, which so flourished for a while as the result of the enthusiasm of those who introduced the drugs; then spoke of the administration of alcohol in overwhelming quantities; methods of treatment, he said, which were largely practised for a time, but which were no longer accepted at the present time. So, he believed, it would be with the bath. He admitted a temporary benefit from baths; but, like that resulting from the intravenous injection of saline fluids in cholera, it practically left the disease uninfluenced. He thought there was abundant evidence to prove the connection between the exposure to cold and internal inflammations and congestions, and he related two marked cases in point. It was, moreover, now generally believed that typhoid and allied diseases were due to germs: he asked, did these cold baths render germs less vicious or kill them? He had not brought any statistics in support of his views, as statistics could be made to prove anything that was wanted. The bath treatment was, moreover, difficult and expensive to carry out. Dr. Frederic Taylor then gave a summary of the experience of Guy's Hospital, and spoke in favour of the anti-pyrexial treatment. While admitting that mortality was the test by which any new method of treatment would be judged, he felt it would not be a correct test in the present instance, as only the severest cases were submitted to the cold-bath treatment. He agreed with Dr. Coupland that bathing, to be really effective, should be commenced early on in the disease. Its immediate effect, he said, was to lessen delirium, and to increase the patient's comfort; and if deaths from hæmorrhage were not diminished, they were not increased, while other complications and relapses were distinctly less common when this treatment was employed. The discussion will be resumed next week.

The exact pathology of infantile paralysis was the first subject under discussion on Tuesday last at the meeting of the Pathological Society, Dr. Money contending that the chief cause was a faulty blood supply, and not an inflammation of the grey matter, as is usually held. His argument was, that there were so many obstacles to interfere with the free access of blood to the grey matter that a very slight cause might suffice to prevent this altogether. Dr. Sharkey and Dr. Wilks, on the other hand, thought that the blood

supply of the grey matter was exceptionally good, the latter observing that the nervous system was especially prone to disease, on account of its great functional activity. Dr. Coxwell read the notes of a fatal case of lateral amyotrophic sclerosis, in which he had found extensive disease of the pyramidal tracts and anterior cornua, the disease apparently having commenced in the latter structures.

As is unfortunately only too often the case, the best paper of the evening was kept till so late that there was not time to give it a fair hearing, much less obtain any discussion upon it. Mr. Watson Cheyne's communication on the presence of micro-organisms in the blood in two cases of purpura hæmorrhagica deserved a better fate than this, but the fact remains that it was hurried over, owing to the lateness of the hour at which it came on. Surely, it must be within the province of the Council to determine the order in which communications shall be taken, and, for our part, we should be glad to see them exercise their discretion in this matter, and also in the matter of relegating communications to the list of card specimens a little more freely.

At the Society of Medical Officers of Health on Friday last, Mr. Cassal read a paper embodying certain observations and experiments by himself and Dr. Whitelegge on the albuminoid ammonia and Frankland's methods of estimating the purity of potable waters. They found the former to give results so uniform, when applied to waters of known degrees of pollution, that they pronounced it sufficiently accurate for all practical purposes, and on the score of speedy performance and simplicity much to be preferred to Frankland's. In a discussion of unusual interest, the feeling of medical officers of most experience was, that the value of the conclusions to be drawn from the most complete analysis had been greatly exaggerated, while many published analyses conveyed no real information whatever, since chemistry totally fails to indicate the nature of the organic matter, and whether living and specific, or not, and that the analysis should rather be deemed subsidiary to, and confirmative of, microscopical, physiological, and other evidence.

At the annual meeting of the Obstetrical Society of London, Dr. Aveling mentioned that the Society had some time since asked Dr. Fordyce Barker, of New York, to have made for them a transcript of Woolveridge's "Speculum Matricis." This book, published in Dublin, 1670, is the earliest original work on midwifery in the English language, and the only copy known to exist was in the possession of Dr. Fordyce Barker, who, at the request of the Society, employed a man to copy it. This person absconded with the volume, and died in Europe. Thus, it is feared, the only copy of this work has been irretrievably lost. It is asked that if any of our readers should meet with or hear of a copy of this rare book, they will inform the honorary Librarian of the Obstetrical Society of London.

At a general meeting of the Fellows of the Royal College of Surgeons in Ireland, held on Friday, February 15th, Dr. W. Ireland Wheeler, president, in the chair, the following resolutions were, after prolonged discussion, carried by large majorities:—1. Resolved—"That this meeting approves and will gladly support a well-considered measure of reform calculated to remove such defects as have been proved to exist in the constitution of the medical profession; but, at the same time, the Fellows here assembled desire to express their conviction that it would be injurious to the public welfare, and an unjustifiable employment of State authority to strip of their priviliges institutions which can be shown to be using them both wisely and well." 2. Resolved—"That, inasmuch as the Bill introduced into Parliament last Session would, had it become law, have deprived this and other medical authorities of the power and influence over the profession which they have hitherto exercised, and which were conferred on them by charter, the Fellows of this College are of opinion that any such legislation should be resisted by the entire profession as being in a high degree injurious to its best interests." 3. Resolved—"That this meeting having been informed that it is the intention of the Government to introduce into Parliament during this Session a Bill similar to that of last year, recommends the Council to use all the influence it can command to obtain such changes in that Bill as may be necessary to preserve the chartered privileges of the College, more especially the right of conferring a title to practise, and, failing this, to oppose the passing of such a measure by all constitutional means."

A very full and varied provisional programme of the subjects proposed for discussion in the section of diseases of children at the International Medical Congress, to be held at Copenhagen, in August next, has been issued. The President of the section is Professor H. Hirschsprung, and the Secretary Dr. Wichman. The following are the questions which have been selected:—1. On the use of sea-side hospitals for children. 2. The normal increase of weight in the later years of childhood. 3. The prophylactic treatment of ophthalmia neonatorum. 4. On the choice of antiseptics for the treatment of wounds in children. 5. On the value of the out-patient department for the propagation of sound hygiene among the poor. 6. Nephritis in children, especially in infancy. 7. Tubercular meningitis in the first years of life. 8. Have the experiences of later years been able to fix the systematic place of acute rickets. 9. On intestinal invagination in children, and its comparative frequency in different countries. 10. On the treatment of acute rheumatism in children with salicylic acid. 11. How far is croup to be considered from a clinical point of view—a well limited morbid entity.

The French Society of Ophthalmologists held their annual conclave during the last four days of January. The treatment of granular conjunctivitis by jequirity gave rise to a very good debate on the first day. Amongst other subjects dealt with during the Congress we note the treatment of detached retina, the treatment of ophthalmia neonatorum, the diagnosis of hemeralopia, the ocular manifestations of scrofula and

hereditary syphilis, and the connection between eye affections and disorders of menstruation. The announcement, on the opening day, that Professors Donders and Arlt had joined the Society was received with evident satisfaction.

At a meeting of the Royal College of Physicians, on Thursday last, the President announced that, in conjunction with the President of the Royal College of Surgeons, he had had a long interview with the Home Secretary to urge upon him the desirability of providing in some way that the Public Prosecutor shall seek good medical advice before he decides to undertake the prosecution of a medical man for a criminal offence on a professional matter. The Home Secretary discussed the matter very fully, and we have good reason to believe that the ultimate result will be highly satisfactory.

Sir Risdon Bennett will represent the College of Physicians at the forthcoming tercentenary celebration of the University of Edinburgh.

The Liverpool poisoning case which has been dragging on for weeks in one court or another, ended on Saturday last in the conviction and sentence to death of both the prisoners. The case was a sordid and hateful one from beginning to end, and the public evinced little interest in it. And yet it is important as showing once again how slow people, and even doctors, are to suspect foul play, especially when the victim is of the flesh and blood of the murderer. Another lesson which the case once again brings into prominence is the temptation to which the system of burial clubs exposes covetous and unscrupulous persons. It will be long, we imagine, before the poor can be induced to lessen the ceremoniousness of the one event which breaks the monotony of their lives—a funeral. But until they cease to think it right to spend the savings of years in one day on mutes and mourning coaches, it might be as well to make it incumbent on the burial clubs to pay the undertaker, and all other funeral charges, direct. That would at least do something to prevent a life being insured, as in the Liverpool case, in five burial clubs at once.

The Apothecaries' Society have issued a circular to the effect that chemical and microscopical analyses are now performed in their laboratory at Blackfriars, under the direction of the superintendent, Mr. Robert H. Davies, F.I.C., F.C.S., who will undertake the examination of water for drinking purposes, of articles of food, as to their freedom from adulteration or poison, and the assay of drugs and chemicals.

Contrary to the ordinary usage of medical societies, the Berliner Medicinische Gesellschaft has lately devoted the whole of two of its meetings to the discussion of a purely political question. The action of the Baden Government in establishing a form of State control over the medical profession within the duchy, to which we referred a few weeks ago, has been received with but little favour by the medical profession in the capital of the German empire. Although, presumably, it can only be held to represent the views of its own members, the Medicinische Gesellschaft has proclaimed in unmistakable terms the opinion at which it has arrived, after a long and by no means one-sided discussion. It considers "that State supervision over the profession is neither consonant with the wishes of its members, nor with the general interests of the public." At the instance of Professor Virchow, who occupies the chair during the present session, a slight addition to this somewhat curt resolution was adopted, expressive of the satisfaction that would be given by some State recognition of medical representation.

In the course of a recent discussion in the Prussian House of Representatives on the nursing sisterhoods, Prof. Virchow paid a compliment to England which ought not to pass unnoticed. "As a matter of fact," he said, "a satisfactory organisation for the care of the sick has only been as yet devised in one country, where it has been taken up with such a strong bent as to carry it far beyond anything that Catholic sick nursing has so far attained to, where, in fact, the devotion even of the upper classes has been such that nothing that the Catholic Church has provided can be in any way compared to it—(laughter from the Catholic party). Gentlemen, can you point to a place in which the Catholic Church has done what is done in London, where a succession of members of the aristocracy go as nurses into the houses of the sick poor? I have always held that this is a matter in which we may all leave our religion at home, and work together simply as fellow-men."

Early in January an interesting ceremony took place, at the castle of Nymphenburg, in the presentation to Prince Ludwig Ferdinand of Bavaria, so well known for his scientific acquisitions, of the diploma of Doctor of Medicine, *honoris causa*, of the medical faculty of the Bavarian University. On his presenting to the faculty a copy of his recently completed work on the comparative anatomy of the tongue, "Zur Anatomie der Zunge," it was unanimously determined to confer this degree on its author, and a deputation was chosen in order to present the diploma to the Prince. The deputation consisted of Professors Pettenkofer, Rüdinger, and Kupffer. In his address, Professor Pettenkofer dwelt upon the satisfaction with which the medical faculty had witnessed the Prince's devotion to science, and the signification they attached to this honorary degree, which is the highest mark of distinction the faculty has in its power to grant. The Prince, in reply, warmly thanked the deputation, assuring them that he felt proud of being thus distinguished by a faculty which numbered amongst its members some of the first *savants* of Europe. For himself, he felt an unbounded love for science, and he hoped to show by future work that he was worthy of the honour conferred upon him. His treatise consists of fourteen sheets of text, with 104 chromo-lithographs, and is dedicated to King Ludwig of Bavaria. The investigations were conducted under the superintendence of Professor Rüdinger.

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The substance of Dr. Koch's fifth report, dated Calcutta, January 7th, to which we alluded last week, is to the following effect. After expressing his thanks for the way in which the Commission had been received by the medical authorities at Calcutta, Dr. Koch states that he and his associates have had an opportunity of making *post-mortem* examinations of nine cholera subjects, in all of whom they found the same bacilli as they discovered at Alexandria. They isolated them, cultivated them in gelatine, and observed in them certain characteristic features which enable them to differentiate them with certainty from similar forms of bacillus. Dr. Koch has also been able to identify the specific bacillus in the evacuations of living cholera patients. His next step was to examine the intestines of patients who had died from other diseases, as pneumonia, dysentry, phthisis, and Bright's disease, for the same bacillus, and in each case without success. He also examined the dead bodies of animals and other substances swarming with bacteria, but in none was the specific bacillus to be found.

Dr. Koch intends to continue these investigations, and if he still finds the bacilli uniformly present in cholera cases, and uniformly absent in all others, he thinks that he will be justified in regarding them as the cause of the disease, even if his inoculation experiments in animals should fail; his results in this direction, however, have been such as to permit him to hope for better success than he has as yet been able to record. Since the last report was published, a statement has appeared in a Calcutta paper to the effect that the members of the Commission have discovered the bacilli in the matter contained in a water-tank supplying a village in the suburbs of Calcutta, in which sixteen cases of cholera had recently broken out. Confirmatory details of this statement will be looked for with some interest.

Whilst the theory of the communicability of phthisis is engaging the attention of collective investigators and scientific observers at home, it would appear that in Germany a more practical view of the question is being taken. The Minister of the Interior, in view of the prevalence of phthisis in prisons, has not waited for the final solution of the problem, but having determined, in true judicial spirit, to give his prisoners the benefit of the doubt, has ordered the isolation of phthisical cases, the careful disinfection of linen and excreta, and all the usual sanitary precautions, such as are observed in the case of the well-recognised infectious diseases in all the prisons and kindred institutions in Germany.

A conscription of idiots and cretins is about to take place in Hungary, under Government supervision, with the object of ascertaining more exactly what proportion the number of cases bears to the population of the country, and also to the number of asylums, or other institutions, provided for their care. The opportunity will not be lost for making further investigations into the true nature of the complex condition known as cretinism, and it may be confidently anticipated that the curious connection between disease or removal of the thyroid gland, myxœdema, and sporadic cretinism, which has of late been clearly recognised, will be still further illustrated and explained, when a larger amount of material, and especially of cases of endemic cretinism, are available for study.

During last week the meteorological conditions, except perhaps on the last two days, were exceptionally favourable to health. The mean temperature was nearly 4° above the twenty years' average for the corresponding week, the night temperature never fell below freezing point, we received 25 per cent. of possible sunshiny hours, and the recorded amount of ozone considerably exceeded the average. Under these circumstances the death-rate in the 28 great towns fell from 20·6 per 1,000 to 20·1, and only twelve of the towns had a death-rate above 20·0 per 1,000, instead of seventeen of them, as was the case last week. In London, however, the death-rate rose to 19·8, having been 19·5 in the previous week. This rise is almost entirely accounted for by an increase in the number of deaths from the zymotic diseases, which were 208 in number, or 34 below the ten years' average, whereas in the previous week they were only 186, or as many as 63 below the average. The zymotic death-rate was 2·7 per 1,000, higher, that is, than it has been in any week since the present year began. Whooping-cough, measles, and diphtheria were the most fatal of the zymotic diseases; whooping-cough being credited with 83 deaths, or exactly as many as those from measles (35), scarlet fever (22), and diphtheria (26) combined.

Small-pox has for some time been very prevalent at Sunderland, and the current return appears to show that it is increasing in severity, ten deaths from this cause having been registered last week.

The watchful supervision of the Local Government Board over the health of the country, sometimes introduces us to places but little known before. Thus, Dr. Parsons was recently deputed to report on the sanitary condition of the Heage Urban Sanitary District, which we find to be in Derbyshire, in the neighbourhood of Belper. The death-rate in this district during the past five years had been, on the average, 19·3 per 1,000 per annum, or considerably above that of healthy rural districts possessing similar conditions, and this, notwithstanding that the total area gave nearly an acre to each inhabitant. Although the sewerage arrangements, water supply, &c., were found to be more or less faulty, the number of deaths from diseases of the zymotic class had been by no means large; and as a result of his investigations, Dr. Parsons reports that, while the circumstances of the district, physical and social, do not call for large and comprehensive schemes, they, nevertheless, demand careful supervision, and the enforcement of improvements based upon the requirements of each individual house.

The first lunatic asylum report that has dawned on us this year comes appropriately from the East—the

East Riding Asylum, which appears to be in a thriving condition under the management of Dr. Macleod. The asylum contained 274 patients on the 31st of December last—66 having been admitted during the previous twelve months, and 75 having died or been discharged. Hereditary tendency to insanity was clearly made out in 21 of the cases admitted, while intemperance was proved to be the cause of the mental malady in seven cases. One man who was admitted, an Irishman, went mad after receiving a letter from a secret society threatening his life; and in two cases insanity was induced by the highly emotional services of the Salvation Army.

An influential committee has been formed, with Dr. Fordyce Barker as its chairman, for the purpose of raising a fund for the erection of a monument in the New York Central Park to the late Dr. Marion Sims. "It is believed," the committee observe in their address, "that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realise the benefits he first made possible, will gladly unite thus to honour the man through whose original and inventive genius such blessings have been conferred upon humanity. The active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upwards may be forwarded to the journal which has been constituted the treasury of this fund—*The New York Medical Record*." Substantial proofs of the favour with which this appeal has been received have already been given in the shape of considerable subscriptions, varying in amount from one to 100 dollars.

The interest in medico-legal questions shows every sign of vitality in the United States. It has received a vast stimulus from the results of recent litigation in connection with a disputed insurance case. Notwithstanding the testimony of numerous high authorities, the evidence given by the experts was so conflicting that the case was decided against the Societies on side issues. An appeal will naturally follow; but, meanwhile, whether as a direct result or not, a new Society has been formed for the cultivation of Medical Jurisprudence, about fifty members of the Philadelphia bar and thirty physicians of prominence in that city having already expressed their desire to join the Association. This conjunction of the learned professions may be expected to work to the benefit of all concerned. The accustomed browbeating of experts will probably soon be a thing of the past now that the difficulties of scientific evidence are to be studied by the two professions side by side.

The Dwight case presents numerous curious features. It appeared from the evidence that, after obtaining policies for nearly four hundred thousand dollars, the insurer died very suddenly when he had only paid the first quarterly premium with borrowed money. A theory of suicide was brought forward, and contested. Creases were found in the neck, and variously attributed to strangulation and flexure of the body after death. Putting aside the evidence on this point as being too conflicting to allow of any conclusion, it is still unsatisfactory to find the case decided against the life insurance companies, when it was in evidence that the replies given to some of the questions in the original proposal forms were false and misleading. Life insurance is commonly, in this country at least, regarded as a legal contract, based on certain statements, the responsibility terminating should these statements be proved to have been wilfully incorrect. Those holding policies in American companies will do well to consider their risks, when a jury can decide in this way in face of the facts.

Nobody for a moment imagines that *everything* appearing in print is to be taken seriously, and regarded as literally true, still it may be doubted whether it is quite fair for a medical paper to play off on the general public elaborate jokes in the form of an editorial article. The *Philadelphia Medical News* has tried the experiment in a recent article entitled, "Shortening the Duration of Pregnancy." Much ingenuity is displayed throughout to develope the desirability and the possibility of interfering with the natural course of events, and advancing the time of delivery by two months or more. The writer is certainly not sanguine about the immediate acceptance of his suggestions, but he makes the bold claim of a discoverer, "when the practice is adopted let there be no dispute as to with whom, and when it originated." The time will come, he seems to say, when all fortunate beings, who have been saved two months and hard labour at the end, will turn with blessings to remember the author of an anonymous article in the *Philadelphia Medical News*, of January 26, 1884.

A taking title, a serious introduction, and references to such varied authorities as Baudelocque, Barnes, President Lincoln, the author of "Tristram Shandy," and the author or authors of "The Iliad," will hardly convince medical or lay readers, that the article is intended seriously. Granted, that from the mother's point of view, it may be desirable to shorten the duration of labour, the *couveuse*, described by Auvard, scarcely proves that it may be equally desirable from the infant's standpoint. At its best, the article is but a gross satire on the work and theories of obstetricians. If fatty degeneration of the decidua is to be regarded as the cause of labour, we are advised to use arsenic or other "steatogenous" medicine. If we believe in ovarian influence, faradisation of the ovaries is suggested. Further, for those who look to excessive distention of the uterus, "there ought to be no hesitation as to introducing a canula into the fœtal sac, and pumping in a sufficient quantity of warm water to excite uterine action." And all this is urged, with seeming gravity, to diminish the risks of lacerations of the maternal passages.

It may be that the satire is not wholly undeserved, but if this style of writing is to be on the increase in medical journals, may it not be well for the peace of mind of the non-professional reader, to have a separate

column headed "comic jottings," or even to begin by saying, "This is *meant* for a joke!" It would be too trying to be called upon to discuss the question with some lay friend, who had seen at his club an article on "Shortening the Duration of Pregnancy."

It is natural enough that Englishmen should be proud of their liberty, and excessively jealous of all interference by "outsiders." Every man's house is his castle, and although the necessities of civilization oblige men to hold "castles in common," still the various communities remain imbued with the spirit of exclusiveness, and bar their gates against strangers. Professions and trades prefer to manage their own affairs, and resent any interference from all who are not of the same calling. And a similar feeling of independence, tinged with exclusiveness, and somewhat poisoned by arrogant intolerance, is to be found in every small community, which has no other tie to bind it excepting the fact that the individuals who compose it inhabit the ill-drained houses which their forefathers built, and can appeal to the grave-stones in the parish churchyard as proofs of their membership. All over England the same kind of exclusiveness is to be found, and it is not only that county people in the provinces look down on those who are not "county," but every small village looks down with *modified* contempt and dislike on each neighbouring village and town.

There are, no doubt, degrees of hatred. One of Cooper's naval heroes expressed the descending scale of hatred very forcibly when he said "A messmate before a shipmate; a shipmate before a stranger; a stranger before a dog; but, a dog before a soldier." We think average provincial Englishmen would place "a Central Board" in the soldier's place—at the bottom of the list of objects of loathing; and the Boards know it. Nothing else can account for their timidity; nothing less can excuse their want of courage. The Boards, whose duty partly lies in making men healthy or keeping them so, address the communities supposed to be under their control with bated breath and whispering humbleness when they touch on sanitary matters. Last year the Board of Trade felt bound to call the attention of the shipowners to the fact that *for some years* scurvy had been on the increase in British ships! The Board ventured to suggest that the remedies were in the owners' hands, but they forbore to insist upon their use. The central authority contented itself with a vague threat, that if things went on from bad to worse it would be obliged to interfere in some distant "hereafter."

In that instance we suppose the Board of Trade did what it could; and now we must prepare to make the same charitable allowance for the Board of Health. It does what it can, and receives the usual treatment. We find in *Pulman's Weekly News* that the latest aggression has been in the West of England. The reporter heads his description "The Local Government Board Return to the Charge." It is worth while to notice the unwarrantable attack of the Government Board, and the gallant defence of the Board of Guardians at Axminster. The official letter is dated January 8, and is as follows:—"The Local Government Board have received a report from their Inspector, Mr. Courtenay, of his visit to the Axminster Union Workhouse, on the 20th of October last, in which he again draws attention to the defective accommodation for the sick inmates. He states that there are still several inmates in the sick wards that are not entered in the medical officer's books; while cases of ordinary disease are placed in the ward by the gate. The Inspector also reports that during a recent outbreak of measles the receiving wards had to be used for separate wards, and that at the time of his visit a vagrant suffering from itch was under treatment in one of the receiving wards." And then, after this annoying statement of defects, the Central Board proceeds to irritate the Guardians of the Poor at Axminster by hinting that some day or another it will be necessary to send down another Inspector, and write a very severe letter indeed. "The Board (continues the Secretary) direct me to inform you that, having regard to the repeated reports which they have received from their Inspector on this subject, they can no longer accept the responsibility of permitting the present defective arrangements to continue, and they must accordingly request the Guardians to take the matter into their serious consideration, and inform the Board of the steps which they may decide upon taking to remedy the defects referred to."

The reply of the Guardians, through their mouthpiece, the Chairman, was what might have been expected. "We have taken it into consideration *for many years past*," said the Chairman, "and shall do so again. (Laughter.) If it were not for that place Mr. Courtenay would have no report to make. *We keep it for his convenience.* (Laughter.) I don't consider that alterations are necessary, but I suppose we must consider the matter again." The subject was then referred to the Visiting Committee. Any person who jumped to the conclusion that the Guardians were hard-hearted or indifferent to the welfare of the paupers of Axminster would be completely in the wrong. They are merely utterly blind to the advantages of sanitary science, they have no belief in the prevention of disease, they despise all theories of infection and contagion, and they are roused to fury by the interference of a London Board. And yet it is the duty of that Board by steady pressure to ensure that the widest view of their duties should be taken by local authorities. The object of a Central Board is to provide for the comfort, health, and security of communities. It should act as eyes for those who are blinded by their own want of education, or narrow local prejudices. It should have hands, too, as well as eyes—hands which can make themselves felt by other action than that of writing polite letters of recommendation to local authorities.

Amongst the many reports of the Local Government Board Inspectors during the year that is past, that by Dr. Blaxall, on the continued prevalence of diphtheria in and around Taunton, is not the least instructive. The first case occurred in October, 1881, from which

time fresh cases appeared in each month up to December, 1882, invading in all 127 houses, with 215 cases, and 53 deaths. The sewerage and house drainage were found to be in a most unsatisfactory condition, whilst there was no efficient system of refuse removal. Further, the water-supply was inadequate, and Dr. Blaxall recommended that the works, in progress for increasing it, should be completed with as little delay as possible, so as to completely substitute the issue of town water for the questionable well supply still resorted to in many parts of the district. Dr. Blaxall was able to acquit water, milk, and sewer-air of having exercised any *direct* influence on the spread of the disease; and to decide that personal intercommunication between the infected and healthy was the only satisfactory solution of the problem. Abundant evidence was forthcoming that such intercommunication obtained to a very great extent. Personal intercourse took place freely between infected and healthy families, servants going to and from one to the other; females and children continuing to attend factories and schools while in an infective condition, or going there from infected dwellings.

At the same time there could be no doubt but that the unwholesome conditions existing in the town did indirectly conduce to the spread of diphtheria and its fatality by pre-disposing people to contract it and succumb to its effects; and its protracted presence extending over fifteen months, would seem to find explanation in the delay that occurred before any attempt was made to secure the due isolation of the sufferers. The first case received into the sanitary hospital was on the 6th of March, and up to the end of May only two more cases had been received, although the disease had been prevailing since the preceding October. The largest number of cases received into hospital in one month was nine, in October, 1882; and it is not unlikely that the subsequent speedy termination of the epidemic was related to an increased activity in securing isolation of the sufferers. In all probability, says Dr. Blaxall, had similar prompt action been taken at the commencement of the outbreak, the disease would not have assumed such widespread proportions. The lesson to be gleaned from the report is very important.

As a sequel to this report, Dr. F. H. Blaxall has published the result of his enquiries into outbreaks of the same disease which occurred almost simultaneously in the Taunton rural sanitary district. Whilst employed upon the first enquiry, he received instructions from the Local Government Board to visit any of the surrounding villages in which diphtheria was at that time prevailing, and he accordingly made careful inspections of the villages of Bishop's Lydiard, Bishop's Hull, and Bathpool. There is but little additional knowledge to be gained from the report under notice; the greater portion of these local board enquiries have long since established the fact that the country districts of England and Wales are lamentably deficient in sanitary requirements of every description; and, as we have before pointed out, but little real improvement can be expected so long as remedial measures are left in the hands of local authorities. It is not only that these latter are ignorant of even the first principles of sanitation, but they are utterly crippled by the prospect of incurring expense which ratepayers are certain vigorously to resist. The substitution of a really effective method of improvement for the country generally can only be brought about by means of legislation which would transfer the power of effecting radical reforms to the central board, the cost being borne by the locality benefited.

In the present instance Dr. Blaxall found in each of the villages inspected, that cess-pit privies of the worst type were general, and that the water supply was, for the most part, derived from wells greatly exposed to pollution. In two instances he was enabled to establish the fact that diphtheria had been introduced into the villages—in one case from the town of Taunton, in the other from a neighbouring village—but there was little doubt that the condition of the localities themselves favoured the spread of the disease when once it had been imported. The excremental nuisances met with in the several villages, the report says, are no doubt inseparable from the method of excrement disposal that is employed in this rural district; and it is highly important, it adds, that a wholesome method of removal and disposal should be introduced, and the existing privy pits abolished; it is moreover suggested that the dry earth principle would probably be found well adapted to meet the requirements of the district. Further, steps should be taken to secure to the people a plentiful and wholesome supply of water which, where practicable, should be brought into the villages from extraneous sources.

"Generally speaking, the past year has been a satisfactory one;" such is the remark of Mr. Karkeek, the Medical Officer of Health for Torquay, in introducing his annual report for the past year. The death-rate for the period—16·9 per 1,000—has, nevertheless, been somewhat above the average of the previous nine years, and includes 56 cases of phthisis, and 76 of bronchitis, pneumonia, and pleurisy. It is satisfactory to learn that the Torquay rulers have at length provided their Medical Officer with the means of fighting against infectious disease, and the sanatorium which has been for so long a time promised, is actually furnished and in working order. Mr. Karkeek has been engaged in ascertaining whether there is much overcrowding in the town, and although he has not yet finished his labours in this direction, he has satisfied himself that the close packing of Torquay is unaccompanied with the immoral surroundings found to exist in most large towns.

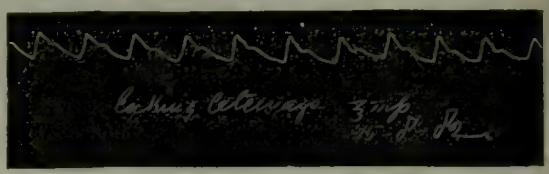
We have much pleasure in drawing the attention of our readers to the following resolution, passed at a meeting of a committee recently appointed. It runs as follows:—"That subscriptions be asked for the purpose of placing in an appropriate position in Guy's Hospital, a bust or other memorial of the late Dr. Hilton Fagge;

and that any surplus of the amount raised, be devoted to aid in the education of his children." Subscriptions may be sent to the treasurer, Dr. Wilks, 72, Grosvenor Street, London, W., or to either of the honorary secretaries, Dr. Frederick Taylor, 11, St. Thomas's Street, S.E.; and Mr. Charters J. Symonds, 16, St. Thomas's Street, S.E.

In the current number of the *Journal of Anatomy and Physiology*, Dr. B. C. Windle publishes three cases of sarcoma of the kidney, and tabulates all the cases he has been able to find. According to the state of the remaining portion of the kidney, he divides the cases into three groups:—In the first the growth commences at the hilus, and spreads on the inside of the pelvis in every direction without invading the proper structure of the organ. In the second group the growth invades the kidney in the course of the blood-vessels between the pyramids. In the third group the growth commences at the hilus, and spreads along the outer surface of the capsule, thus enclosing the kidney in the centre. In the same journal, Mr. A. W. Hare, gives a new method for determining the position of the fissure of Rolando in the living subject. From a study of eleven skulls, he found that the distance from the glabella to the fissure was on an average 55·7 per cent. of the distance from the glabella to the occipital protuberance within very narrow limits. This promises to be a very easily applied rule, we hope it may prove reliable.

In previous reports on the sanitary condition of the Wandsworth District, the subject of uncertified deaths has been commented upon, owing to their prevalence in that locality; it is, therefore, satisfactory to find from the report for the year 1882, that the number of deaths not certified by medical testimony, which had so greatly increased during the year 1881, underwent a very considerable reduction: the figures showing 96 for 1881, against 67 for 1882. It is scarcely necessary to repeat, the report adds, what has been so frequently urged, namely, that this laxity in the registration of deaths requires an amendment of the law, by which the cause of death shall be made in every instance an ascertained fact, as far as human knowledge can make it so. In such view of the case, it may be observed that if in all cases in which the cause of death has not been certified by a registered medical practitioner, a preliminary medical examination were substituted for the unskilled inquiry of the coroner's officer, a large number of the inquests which are now needlessly held might be dispensed with, at the same time that the object of the coroner's court, and consequent security to life, would be more completely attained. This course of procedure would appear to have been adopted in the West Battersea portion of the district, to a certain extent, and, as a result, the return of the number of inquests in that portion shows that 39 were held during the year 1882, as compared with 63 during the year immediately preceding it.

"J. K. B." sends us a sphygmographic tracing of Cetewayo's pulse, which was taken by him when the late Zulu King was living in the Melbury-road. The circumstances under which Cetewayo is reported to have died sufficiently excuse us from breaking through the rule of the *Medical Times* not to report upon the illness of personages, *quâ* personages. "J. K. B." writes:—"As ex-King Cetewayo is stated to have died suddenly of fatty degeneration of the heart, it may interest your readers to know what was the state of his heart when he was in England in August, 1882. In auscultation the heart sounds were absolutely normal, and the appended sphygmographic tracing will show the



healthy state of the arterial system. Cetewayo's main ailment, when in England, was constipation from excessive meat diet, combined with want of exercise."

PUBLIC OPINION AND EXPERIMENTAL PHYSIOLOGY.

I.

The claim put forward by Mr. Freeman in his remarkable speech at Oxford, and reiterated by him in a letter to the *Spectator*, to regard his special study—history—as a branch of science, and himself as a scientific man, makes one vividly realise the danger that always attends success. Science was for ages the Cinderella of the family of knowledge, contemned and scouted by all her sister studies, and now that after long years of patient and conscientious work she has at length achieved fame and recognition, she finds her old persecutors flocking round her to claim a share of her prestige. It is a danger to be guarded against. For while science will gladly see the workers in other studies putting on the scientific spirit, and imitating her painstaking observation and rigid processes of inference, she must firmly protest against their claiming a position to which they have no right. With all due deference to Mr. Freeman, science does not, in the common acceptation, "simply mean knowledge." For the vast majority of people it means "natural science," the study of the laws which govern natural phenomena; and it is an unwarrantable extension of language, and certain to harm the respect in which the term is now held, to apply it to branches of study which have very little prospect of ever being able to attain to that certainty of prediction which is the mark of a science properly so-called. Mr. Freeman, in his letter to the *Spectator*, compares the sciences of history, geology, and physiology. In each, he says, men follow the pursuit for its own sake, and just as zealously whether it leads to any practical result or not. If it does, so much the better; if not, the worker has improved his own mind. But in the two former he has done no harm to man or beast, a claim which the physiologist cannot make. "We are told," says Mr. Freeman, "that this kind of knowledge, *i.e.*, physiology, like the other two, has its practical use in the improve-

ment of the art of medicine. But it is as certain, as in the other two cases, that the votaries of this branch of knowledge follow it for its own sake, whether it leads to such practical results or not. They say, like the historians, that their study is good in itself and improves their own minds." That is a travesty of the opinions and claims of cultivated physiologists, and of the members of the medical profession, who, we are convinced, would be quite as much opposed to vivisection as Mr. Freeman is, if its main object were merely the mental culture of the individual worker. The claim consistently put forward by the physiologists is, that vivisection is justified by the prospect of the knowledge gained by it contributing to the relief of suffering and the prolongation of life. They admit that the practical application of any particular research may not be immediately visible, but they point to innumerable instances in which discoveries, apparently useless at the time, have led to the most far-reaching and beneficent practical results, and they proclaim that there is no item of physiological knowledge, which is not certain sooner or later to be found useful in practice. But to state that vivisection has ever been justified by any responsible representative of science on the ground of self-culture, is little short of an ignorant libel. Science has not yet sunk to such a level of priggish self-consciousness as that.

Where an intelligent man, like Mr. Freeman, so thoroughly misconceives the attitude of the scientific school, it is hardly to be expected that the ordinary lay public will show a truer insight. The vote at Oxford was extremely satisfactory to all who have the welfare of science at heart, but still it is evident that public opinion is very ill informed on the merits of the question. Reasonable men on both sides are content to abide by the decision of Parliament, but as the extreme party amongst the zoophilists still scout all idea of a compromise, the whole battle of vivisection—of its sanction and its value in any circumstances and under any restrictions, or its absolute uselessness, and, therefore, logically, of its total abolition—must continue to be waged; and every member of society who takes an intelligent interest in the mysterious vitality which he shares, and by virtue of which he suffers, in common with the whole animal world, must still hold himself liable to be drawn into the contest. Few men, and perhaps still fewer women, pass through a year of life, without often having their attention directed to some aspect of the subject, and without being called upon to go through that process which they term making up their mind upon it, or, at all events, upon some one of its many practical applications. To medical men, the question, of course, frequently presents itself. The results derived from the practice of vivisection (using that term in its broadest signification) are so continually adduced to strengthen or to confute previous conclusions; to give weight to some new discovery; or to indicate the probable existence of a hitherto unsuspected danger—that every practitioner, if he be not actually crystallising, comes to regard it as at least a recognised method of research. And in the mind of every man whose end is scientific truth—the attainment of which he knows must redound to the benefit of his profession, of his patients, and of himself—there is a natural disposition to receive with hearty welcome any procedure which comes in the guise of a potent and valuable ally.

It is at this point that the discord rises loud and shrill. For there are those who contend, with a pertinacity and vehemence which are in themselves sufficient to command assent in many minds, that this aspect of vivisection is a *dis*guise, and that all and every the results which it has achieved are not merely useless, but absolutely misleading. There have, it is true, been violent champions on both sides; and the medical profession is itself to some extent responsible if, on this question, its opinion is not accorded that full weight which it might have been expected to secure. Activity and energy are of the greatest value in promoting and sustaining any movement: but dignity as well as strength is necessary if we would command respect; whilst caution, tact, calm judgment, and courteous consideration for the sincere—even though mistaken—feelings of our opponents, will do far more, in the long run, to disarm opposition and secure success, than a front of bluff and brutal assertion. We do not wish it to be understood that, in our opinion, this latter represents the position which has been taken up by the profession as a body upon the vivisection question: but the noisiest orators are too often accepted by their audience as the typical exponents of their party's views; and it cannot be denied that if the arguments advanced by the anti-vivisectionist are sometimes not merely wanting in accuracy but absolutely baseless, the replies by which they have been met have been too often violent and inconsiderate. One result is that all the members of a humane and self-denying calling are, in the eyes of the general public, branded with the same extravagant partisanship which has been exhibited by a few: and a second result is that every medical man is expected to respond to any challenge from chance combatants, and to be prepared to do battle *à outrance* in defence of every item of the extreme creed with which he has been credited. No doubt the public are themselves largely to blame for the mistakes into which they so readily fall. It is so much less trouble, and often so eminently self-satisfying, to believe the whole charge rather than take the pains to examine and dismember it, in order that one may finally accept no more of it than is really proved: and people will not take the trouble to assure themselves, for instance, that the vast majority of medical men are decidedly opposed to making legal the performance of vivisection by every young student or new-fledged graduate — or indeed by anyone — without the imposition of any restrictions whatsoever. The practitioner of medicine,—gentle and kind-hearted though he be, and firmly as he believes in the active humanity of his professional brethren—is also a man of intelligence and experience: and he knows that there is "a great deal of human nature" (humanised brute—not brutal—nature is what that phrase really means) in man—far too much, in fact, to make it wise or safe to free every investigator from every restriction. Nor will the public pause to study the signification of the term which it abuses. For most, "vivisection" means—vaguely but terrifically—"experimental torture of living animals;" and it is a matter of little or no moment that, in eight cases out of ten at least, suffering is prevented or minimised in the present by a previous narcosis, and

obviated, as regards the future, by a painless death; while the possibility as to whether the result of such an experiment may not be to achieve a lasting and valuable boon to humanity at large, is one which is usually ignored.

The effort of thinking and working out a subject, which to an active and well-nourished brain gives such pure delight, is an irksome and repulsive toil to the comparatively unexercised organ which fills the average cranium, especially where the result appears to be of a problematical or abstract character. It is so easy to agree to the propriety of having the surface neatly raked to its wonted smoothness: it requires so much more trouble to prove whether or not real good will follow the apparent desecration of our flower beds by the rude steel which turns up rugged but rich clods of earth from the unthought-of depths below. And this moral laziness wears a specially seductive garb, for it appeals not only to man's natural dislike of trouble, but also to his desire for respectability: it says, as it were, "By adopting these views in their entirety, you not only escape the labour of threshing out arguments for your own use, but you will have put into your mouth the ready-made pleas which have been accumulated by generations of the most kind-hearted and sincere of both sexes; and you will range yourself with the party which represents all that is refined and humane in Christendom, as opposed to that which feels and exhibits no compunction and no pity for any of the suffering involved in the prosecution of its own selfish aims." Comparatively few average folk have the moral caution and energy to resist pleading like this—which is all the more insidious because it is never couched in quite such plain language. They have always heard kindness to animals inculcated as a moral duty, whose exercise is especially distinctive of the true gentleman; they would themselves shrink from—and they say, and persuade themselves, that they are always careful to prevent—inflicting any avoidable pain upon the lower animals; and because the mere statement even suffices to make them conscious of something like a moral glow, they forthwith accept the proffered deduction, that the intentional infliction of pain for any purpose must be immoral, and therefore unjustifiable; and so sink back comfortably, content with having solved the difficulty in a manner which is quite satisfactory to themselves, and morally elevating to all concerned. They are firmly decided against re-opening the question upon any ground; they will now do nothing beyond re-asserting the conclusions at which they have arrived—or rather, which they have accepted. It never occurs to them that there can be any question of testing the basis-value of the arguments upon which they rely; they would scout the notion of according a deliberate and impartial examination to those of their opponents; and, above all, they do not entertain a doubt as to being themselves completely qualified, by the necessary practice, observation, and experience, to accurately gauge the value of every piece of evidence adduced on either side. The best of people are liable to be influenced in this way. Not long since the chairman of a meeting at which the question of the justifiability of vivisection was under discussion—a medical man of varied and distinguished attainments—ventured to deliver himself of the opinion, "that no man was ever justified in inflicting pain upon one of the lower animals in order to the attainment of his ends:" which provoked the obvious question, whether he was always prepared to put that principle into practice; whether, for example, if he had received an urgent summons from a patient at a distance—who was represented as being in imminent danger, which the surgeon's presence might be expected to avert or to relieve—he would still feel bound to abstain from using whip or spur as an aid towards speeding him to the rescue? "You have no right," some of these good people say—"even if your results were all that you profess—you have no right to claim that the 'end justifies the means;' it is a Jesuitical and a fallacious precept." And yet upon the general acceptation of this maxim hinges half the business of life, and more than half the possibility of modern civilization. Arguments that are obvious and old are not, on that account, necessarily worthless; and those who sanction the death of millions of sentient beings that they may be—sometimes merely that they may be luxuriously—fed and clothed; who consent to the daily performance of painful operations upon domestic animals for the sake of increasing their value as food, or their docility as beasts of burden—not to mention those who subject whole batches of half-tame birds and timid beasts to wholesale slaughter by a painful and too often lingering death, in the pursuit of so-called "sport"—such persons have no right to say, with respect to the deliberate infliction of suffering upon animals, that in no case does the end justify the means.

And do the people who argue thus ever have the extreme courage of their opinions—that is, when courage is the test? We have never yet heard of an anti-vivisectionist who, in the hour of need, and upon the grounds of a logical and conscientious objection to their origin, refused, either for himself or for his friend, to take advantage of one of the many methods and improvements which are admitted to have been brought at least within the range of practical therapeutics, through the knowledge attained by vivisectional experiment. Such professions, made before the trial, have indeed appeared in print; but there is no evidence that those who made them have elected to submit to medical or surgical treatment in accordance with a system from which had been expunged all the hygienic precautions, all the methods, all the drugs, all the manual and diagnostic delicacy, all the knowledge and experience which, through century after century, have been accumulated, corrected, corroborated, classified, and made available for intelligent application to the human patient, by experiments upon living animals.

CHARITABLE BEQUESTS.—The late Mr. James Benjamin Ball, of Dublin, has left 1,000*l.* each to the Adelaide Hospital, Mercer's Hospital, the City of Dublin Hospital, and the Rotunda Lying-in Hospital; 500*l.* to the Whitworth Hospital, Drumcondra; and 300*l.* to Combe Lying-in Hospital. The late Mr. W. T. Smart, of Brighton, has left 100*l.* to the Sussex County Hospital; and the late Miss Catherine Cain, of Southport, has bequeathed 100*l.* each to the Children's Infirmary, the Lying-in Hospital, and the Royal Infirmary, of Liverpool.

RECENT RESEARCHES ON THE PATHOLOGY OF PNEUMONIA.

For a long time there has been a growing tendency to emphasize the many points of resemblance which acute idiopathic pneumonia presents to the infectious fevers. The acute onset generally marked by a rigor, the well defined constitutional symptoms, the general tendency of the disease to come to a crisis on or about the seventh day, remind us so strongly of the acute fevers; that we are led again and again to consider whether pneumonia ought not to be removed from the group of simple inflammations and transferred to that of the acute infectious diseases. There probably exist few old practitioners who have not been often puzzled at the outset of a case of pneumonia, as to what was the nature of the disease they had before them, it being a matter of doubt whether the case were one of small-pox, typhoid fever, or even of erysipelas, in that rarer form in which constitutional symptoms appear for a day or two before the rash. After a period of from one to four or even five days, the occurrence of signs of local inflammation, extending over a varying portion of one or both lungs, clears up the doubt, yet at first a certain diagnosis has been impossible. The one great reason against classifing pneumonia with the infectious fevers, is of course that in England, at least, it appears to be non-infectious; and yet puzzling outbreaks of several simultaneous cases of pneumonia amongst persons inhabiting the same house or room have been placed on record, and this usually in places where the sanitary arrangements are so bad that enteric fever and erysipelas are also liable to be epidemic. The fact, moreover, that another lung disease, tubercular consumption, still generally considered to be non-infectious, has been traced to a micro-organism, by the inoculation of which it can be produced at will, materially diminishes the force of the argument just quoted, and cannot fail to merit considerable influence on the minds of those who are searching for a more satisfactory explanation than is at present available of the pathological phenomena of pneumonia.

Bearing all these facts in mind, we have noticed with much pleasure two able scientific papers which seem to have a considerable bearing on the problem. The first is an account of some observations on the pneumonia of the Punjaub frontier, by Surgeon George M. Giles, published in the Appendix to the recently issued report of the Army Medical Department for 1881; the other is a paper on the infectious nature of pneumonia, by Martin Mendelsohn, which appeared some weeks ago in the *Zeitschrift für Klinische Medicin*, 1883. Both of these papers seem to us to be of very great importance, and both appear so far to have met with less attention than they deserve. The report of Dr. Giles gives his observations of five cases, and the results of some experiments made on rabbits. The form of pneumonia described by him differs in many respects from the form met with in this country. It appears to be more of the nature of broncho-pneumonia, though always attended, with pleurisy; and it has a somewhat longer duration than the disease with which we are familiar: the crisis coming on the eighth, ninth, or tenth day. Yet, on the whole, the sudden onset of the illness, the high temperature and constitutional symptoms preceding for a short time the development of pulmonary consolidation, the sudden fall of temperature at the crisis, followed by the gradual resolution of the consolidation of the lung, and lastly the nature of the expectoration, all remind us so strongly of ordinary pneumonia that we are compelled to regard it as a variety, and not as an essentially distinct disease. The most interesting part of Dr. Giles's paper lies in the fact that he has proved that in all his patients a peculiar micro-organism was present both in the blood and sputa during the whole of the illness, that these micro-organisms were similar in all the cases in which they were looked for, and that when sputa containing these were injected into rabbits, they, too, were also attacked by pleuro-pneumonia, to which they succumbed; and that the blood pleuritic effusions and lungs of the rabbits were found to be crowded with numerous similar organisms. The paper shows clearly how much an able man can do towards clearing up the nature of a disease, even though the apparatus at his command is very elementary. The paper shows that a form of pneumonia, closely allied to our ordinary acute pneumonia, is in all probability due to the presence of micro-organisms in the blood and lungs, and that the same disease can be conveyed to rabbits, at least, by inoculation; also that, in the opinion of good observers, the pneumonia occurring on the Punjaub frontier is infectious.

The paper of Dr. Mendelsohn, who has had all the advantages of a hospital and laboratory, with suitable apparatus, treats of the ordinary European form of pneumonia. Dr. Mendelsohn firmly believes, that this disease is infectious in its nature, that it depends on the presence of bacteria, and that one form of bacterium is constant in all cases. He has divided his paper into seven sections, and we cannot do better than briefly indicate the several contents of each. The first treats of the epidemic outbreak of cases of pneumonia. The author has collected observations, proving that numerous cases often occur simultaneously in small districts, sometimes among the troops stationed at one place, sometimes in private houses and prisons; and he shows in his next section that these epidemics can often be referred to miasmatic influences, especially in connection with bad sanitary arrangements and deficient ventilation. In the third division of his paper, he has collected numerous cases of apparent infection of one person from another, and he shows that not only are those in immediate connection with the sick in danger of taking the disease, but also that it appears capable of being carried from the sick to others by persons who do not themselves contract it. He next deals with the prevalence of pneumonia, which he shows to be independent of changes of temperature, but to vary with the amount of rain and the consequent rise, and the fall of the subsoil water. The fifth section treats of the micro-organisms of pneumonia. The cause of the disease is, in Dr. Mendelsohn's opinion, probably the bacterium described by Klebs as monas pulmonale, which Leyden and Günther were the first to obtain, by puncturing the living lung. These micrococci are egg-shaped, and generally occur

in pairs, but also in chains of three or four. Similar but larger forms are found in the pleuro-pneumonia of horses. Next, Dr. Mendelsohn states that the time of incubation appears to be about twenty days, and he places pneumonia in that class of infectious diseases, one attack of which predisposes to a second. In infected places strangers are more liable to be affected than natives, and a state of tolerance of the poison appears to be gradually developed. The last section treats of the unity of the poison. One cause lies probably at the root of all cases of pneumonia, the differences in the symptoms in different cases depending on the amount of the poison and the power the individual has of resisting it. Drunkards are especially liable. Exposure to cold is a favouring, not an exciting, cause.

On comparing these papers, we are struck with the points of resemblance which run through both, and especially with the importance assigned by both authors to the bacteria they found. It is also noteworthy how similarly these bacteria have been depicted by both—egg-shaped bodies occurring singly or in short chains. We can only hope that the question, how far these organisms are universally present, may be answered by observers in other countries, and that where they are found experiments may be made, if possible, on rabbits or other animals to determine how far the differences in the symptoms of pneumonia in different parts of the world depend on slight variations of the specific micro-organism. It is a field of enquiry at present almost unentered upon, which, however, more than any other holds out the hope that we may be able, if not to treat pneumonia with any greater certainty of cure, at least to remove, as far as possible, all causes likely to produce it.

REVIEWS AND NOTICES OF BOOKS.

RECENT BOOKS ON DISEASES OF CHILDREN.[1]

The justifiable claim of diseases of children to be regarded as a class by themselves is almost exclusively based on clinical considerations. Strictly speaking, this department of medical study cannot be called a specialty, nor is it in any way comparable with those branches of practice which alone deserve this appellation in the best sense, from requiring some special manipulative skill in the application of diagnostic methods and in surgical treatment. From the pathological point of view, diseases of children are obviously an integral part of general medicine, and only those who possess general medical knowledge can rightly study or successfully treat them. But there are many maladies which are especially incident on childhood, and others whose symptomatology is at that period peculiar, not to mention the physiological characteristics due to the rapid development going on in early life, and some practical difficulties in those methods of diagnosis which are open to us. There is, therefore, not only a justification, but an absolute necessity for the existence of works on the subject from the pens of those who, in addition to a sound medical knowledge, have had a large personal experience.

The first book on our list fulfils these requirements in a manner as rare as it is praiseworthy. It is marked throughout by a consistent adherence to the subject in hand, and a thorough treatment of it, which, while of the utmost use to the student, must compel the admiration of the most experienced practitioner. We miss altogether the initial padding so common and so useless in German books; from the first to the last the matter is rich in value, and there is scarcely an unnecessary phrase. It is indeed quite refreshing to read a work devoted to diseases of children, without having to wade through a practically useless list of statistical averages and anatomical details, and a superfluous, though generally for its ostensible purpose inadequate, réchauffé of pathological facts and theories not peculiar to the material treated of.

Professor Henoch plunges at once into his subject, and those who have any share of his great clinical knowledge will recognise a master-hand in all his work. The book is almost entirely, as the author says, the product of personal experience, and this necessarily lends it a very uncommon value. Thirty-seven years experience must give a careful observer and a clear expositor a good right to teach his fellows: and after a careful perusal of these lectures, we must unhesitatingly say that there is more sound practical knowledge to be derived from them than from any one work on the subject, however good in style and encyclopædic in nature, with which we are acquainted. We can only hope that the merits of this book will, before long, produce a second English edition, in which certain inaccuracies and inelegancies in translation may be avoided, and the dosage and names of medicines may be adapted to English use. One apparently very grave error in figures, probably due to the printer, occurs in the chapter on "Convulsions in childhood," where, on p. 70, the dose of hydrate of chloral is stated to be from 1·0 to 2·0 to 100·0 (!) internally. (The numbers throughout the book apparently denote *grammes*, though this, in an English translation, should have been especially stated.)

It would be impossible, in the short space of this notice, to illustrate adequately the merits of our author's teaching. Everywhere we find traces of extended observation, and remark the absence of those familiar but uncorroborated statements of facts and fancies which in medical literature are so often copied from book to book. It must suffice to quote a few points in illustration. Dr. Henoch, though regarding *craniotabes* as rachitic, examined hundreds of cases, and but rarely found them as described by Elsässer. *Tremor* as a convulsive symptom in young children is noted as being rare, and almost solely due to cerebral tuberculosis or meningitis, or other diseases of the brain, with paralysis or contracture of the limbs. The

[1] Lectures on Diseases of Children. A Handbook for Physicians and Students. By Dr. Edward Henoch, Director of the Clinic and Polyclinic for Diseases of Children in the Royal Charité, and Professor in the University of Berlin. London: Sampson Low, Marston, Searle, and Rivington. 1883.

The Diseases of Children. A Handbook for Practitioners and Students. By Armand Semple, B.A., M.B. Cantab., M.R.C.P., Physician to the North-Eastern Hospital for Children, &c. &c. London: Baillière, Tindall, and Cox. 1884.

The Wasting Diseases of Infants and Children. By Eustace Smith, M.D. London, F.R.C.P., Physician to the East London Hospital for Children, &c. &c. London: J. and A. Churchill. 1884.

remarks on "Spinal Paralysis in Childhood," are of much value: though the author may hereafter see fit to correct his statement that "spastic spinal paralysis" does not correspond to any definite anatomical change. In the present state of knowledge on this matter the possibility of such correspondence should at least be referred to. In the section on Nervous Diseases, we would especially point out the chapters on *Convulsions*, *Hysteria*, *Cerebral Tuberculosis*, and *Meningitis*, as full of useful instruction, and would lay stress on the welcome absence of a gratuitous and scholastic differential diagnosis of "epilepsy" in early childhood. It is better, considering the physiology of this subject, to confess a difficulty in diagnosis than to teach a practically misleading dogma. Under the heading of "Diseases of the Respiratory Organs," the treatment of bronchitis and broncho-pneumonia together is specially to be commended: the clinical, and indeed anatomical, continuity of the affections being constantly and unaccountably overlooked in most books and many lectures. In the chapter on Tuberculosis (p. 166) we find a statement with which most observers who follow their cases to the post-mortem room will probably agree, viz., that the diagnosis of enlargement of the bronchial glands during life is extremely problematical. The lecture on Diphtheria is of great importance; and, apart from moot pathological questions, seems to us at once one of the clearest and truest expositions of the disease that we have seen. But the book must be read and re-read to be duly appreciated. There are but a few points to which exception might be taken: and some of these may be due to the different characteristics of some maladies in Dr. Henoch's field of observation from those seen in England, or to a faulty translation. The statement that paraplegia is almost always present in "chronic hydrocephalus" certainly seems to require revision: and many will question the teaching that choreic movements are *always* increased on volitional effort. Many English observers would probably consider intestinal perforation in fatal cases of typhoid fever in children as more common than Dr. Henoch does, and would lay more stress on the not infrequent acute beginning of this disease. The author rightly accentuates the want of proportion of the nervous symptoms to the temperature in children's typhoid; the frequency of relapses, and of vomiting, and the minor importance of cæcal tenderness and gurgling; the only real fault indeed that we might point out in this very full and instructive chapter being one of omission: no mention being made of the obstinate and often distressing constipation which is so frequent in convalescence, and, being often accompanied by a rise of temperature, hinders us sometimes, in dread of a relapse, from promptly taking the right measures for its relief. Sound clinical knowledge will certainly be increased by the success of this book.

Dr. Semple's book is characterised by most of the faults whose absence from the above work we have already emphasized, and by a lack of all its virtues. It contains much superfluous and inaccurate matter, and appears to be mainly an unequal compilation from other works. On page 4 we read that in infants the pancreas and salivary glands are especially active; on page 38, that the saliva does not appear till the third month. On page 9, the infant constitution is said to be "decidedly nervous," while on page 21 it appears "that the nervous temperament is more especially manifest at or after seven years of age." Those of any clinical experience whatever, will be "surprised to hear" that the temperature is a reliable guide "in young children;" that some abnormal condition (if indeed the author attaches any *practical* meaning to the word abnormal) must be expected from a temperature above 100° or under 97°, or that the thermometer *alone* will indicate the suspicion of scarlet, enteric fever, &c. In all but very experienced hands the thermometer is often exceedingly misleading in the diagnosis of children's maladies. Several of the author's remarks on the treatment of alimentary disorders seem to be as crude and ill-digested as the commoner causes of many of the maladies whose relief they profess to teach. We are told, moreover, under the heading of intestinal obstruction, that when the diagnosis is doubtful, purgatives are to be given, but that when it is certain, purgatives are injurious; and that the treatment is the same in intus-susception. Jaundice is put first among the symptoms of hepatic cirrhosis, and paracentesis is said to be a "last resource" in the treatment of ascites. Further on it appears that ascites in children is most commonly caused by cirrhosis of the liver—a statement astonishing to the clinician and the pathologist alike. No mention is made of calculus in connection with hæmaturia, the only causes of this symptom noticed being purpura, scarlatina, and tuberculosis. Such an omission as this is but one fault out of many which justifies our opening criticism of this book. We should not say that aortic disease is "exceedingly rare in children," rheumatic endocarditis causing it quite as often, proportionately, as it does in adults; and but few who have had experience in aspirating for pleurisy would agree that it is necessary to make an incision in the skin before tapping, or that it is *always* advisable, even in ultimately incising the chest, to place the child under an anæsthetic. Apical pneumonia in children is too frequent and recovery therefrom too complete to justify the remark that it is an indication of a delicate constitution. Nor is it a general belief that salicylic acid should be given in rheumatism *after* the intensity of the fever is lessened. This book verily abounds in error and confusion. The important subjects of laryngitis, diphtheria, &c., are treated most inadequately, no clinical picture of the affections being given. These chapters can be of no practical use. The remarks on nervous diseases are very imperfect, and thrown about in a most disorderly manner, regardless of relative importance. We are told prominently that "Duchenne's paralysis" is more common in the rich than the poor, but are not taught what muscles are affected. Under "chorea" it is stated that the disease is *mostly* limited to one side, that there is usually derangement of the stomach and bowels, that it may be caused by irritation of the spinal cord or its membranes; and this inaccurate teaching is aggravated by the remarkable omission of all mention of heart-murmurs in connexion with chorea, and, under the heading of pathology, of the minute vegetations so often found on the mitral valve in fatal cases. The account

of the fevers is in keeping with the rest of this book, the chapter on typhoid presenting a remarkable contrast with the writing of a clinician like Dr. Henoch: for, however great the experience of the present author may be, we can find but scant traces of it in any part of this book, which is too erroneous and imperfect clinically to be of use to the serious student of medicine, or even to be a safe guide to him who aspires only to the position of a successful examinee.

The last book on the list requires but few words of praise at this late period of its deservedly successful career. It has now reached its fourth edition: and must be admitted by all who study it and follow its precepts to be a safe guide to the management of the diseases of which it treats. The many hints frequently occurring as to the preparation of food for children, and the diet-tables at the end, are not the least valuable part of the book, which in many minor points contains improvements on the previous edition.

The Pedigree of Disease; by JONATHAN HUTCHINSON, F.R.S. London: J. & A. Churchill, 1884.—This little volume contains the six professorial lectures delivered by Mr. Hutchinson at the College of Surgeons in 1881. The subject chosen will be admitted to be one of great importance, and one which cannot be safely ignored if our prognosis is to have a real value, or our treatment to be comprehensive, and yet it is one which has been strangely neglected, during the last quarter of a century at any rate. This we must attribute partly to the more minute study of disease-processes which our modern instruments of precision have rendered possible, and partly to the fact that the study of pathology is so much more fascinating and apparently so much more remunerative than the abstract contemplation of inherited or inheritable proclivities. In the first two lectures, Mr. Hutchinson deals with temperament and idiosyncrasy. The former must not be confounded with diathesis. Temperament is the sum of the physical peculiarities of an individual, exclusive of all definite tendencies to disease, and it is consistent with the prolonged enjoyment of perfect health. Diathesis is any bodily condition, however induced, in virtue of which the individual is, through a long period, or usually through the whole of life, prone to suffer from some peculiar type of disease; diathesis may be inherited or acquired, its effects may be permanent or constant, transitory or recurrent. The term diathesis indicates the proclivity to disease, while dyscrasia indicates actual bad health. In attempting a classification of the different forms of temperament, we have scarcely any other criterion than complexion, and peculiarities of complexion may almost be reduced to a question of the presence or absence of pigmentation. "Temperament is made up from two sources:—1. The hereditary transmission of peculiarities incident to race and family, which for the most part entail no morbid proclivity whatever. 2. Some one or more of the various causes of disease acting perhaps through many generations." The definition of idiosyncrasy, adopted by Mr. Hutchinson, runs as follows:—"It is to a large extent nothing but diathesis brought to a point. It is peculiarity of constitution in some one particular feature developed to a height, which, at first sight, seems inexplicable, and possibly almost absurd. It is individuality run mad." The term is never applied to acquired peculiarities. An idiosyncrasy is congenital and persistent, though it may become modified. It is well shown in such diseases as ichthyosis, xanthelasma, and in reference to certain articles of diet — *e.g.*, eggs, fish, tea — which to certain people under varying conditions may be absolutely poisonous. Tobacco amaurosis and arsenical herpes are both instanced as cases where, without idiosyncrasy, the disease would not be produced. The third lecture deals with idiosyncrasy in relation to drugs—*e.g.*, chloroform, iodides, and bromides—then with its effects on the progress and development of the specific fevers, notably of varicella and syphilis; and next an endeavour is made to show that there are certain conditions which may give proclivity to diphtheria, erysipelas, or carbuncle. This lecture concludes with the following remarks, which Mr. Francis Galton has just done his best to give practical effect to, viz.: "If it should become the custom for parents to record some sort of life-history of their children in permanent form from the birth or infancy onwards, noting all the peculiarities in an individual by the aid of medical observation, not only would much be done in the way of preventing subsequent errors in the treatment of disease, but valuable contributions would be made to our knowledge of its real nature." In the fourth lecture, Mr. Hutchinson speaks more especially of diatheses, making an important distinction between those due to food and those dependent upon climate; the latter are distinctly restricted and endemic, affecting all immigrants who come within their range, and under certain circumstances leave scarcely any exempt. The former are not endemic, they are persistent constitutional conditions, sometimes hereditary, at others not so, which have their origin in connection with food; gout and leprosy are instanced as the types of this form, scrofula and rickets being also in great measure probably food diatheses. This lecture concludes with some remarks on inherited syphilis and the laws which govern its inheritance. In Mr. Hutchinson's view it is not a diathesis which results from the disease, but the germs of the disease itself which are transmitted. In the two last lectures Mr. Hutchinson deals with the relation of pathological habit to diathesis, taking as illustrations of this erysipelas and elephantiasis; he likens the tissues in these affections to a drunkard, who, after each drinking bout, is more liable to an outburst in the future. Very often a diathesis may remain latent until disclosed by certain *revealing* or retrospective symptoms, such as eczema or acne. Iritis, too, he quotes as often the first indication of the gouty diathesis in young adults. Lupus is regarded as the result of an admixture of tendencies to scrofula and cancer, using the latter in its old and wide meaning of malignant disease, and not according to its more modern and more strict pathological interpretation. The catarrhal, rheumatic, gouty, and hæmorrhagic diatheses are in turn dealt with, the last named being regarded as not independent of gout. In concluding this brief notice we will only say that every thoughtful practitioner will read these excellent lectures with profit, and we doubt not with great interest.

Illustrations of the Influence of the Mind upon the Body in Health and Disease. Second Edition, 2 vols., crown 8vo.; by D. H. TUKE, M.D., &c. J. and A. Churchill.—We are glad to welcome a second edition of this interesting and useful book. Consisting, as it does, mainly of records of instances of the occurrence of bodily changes sequent on mental events, and enunciating no important principles to bind the facts together, the book offers little occasion for criticism. Many new facts have been recorded, and the chapters on Physiological and Psychological Principles have been in part rewritten. One of the new facts concerns Dr. Tuke's own experience, and as there can be no doubt of its authenticity, and as it is a very striking one, it may be quoted. He was about to have a tooth extracted under the influence of laughing gas, when, in consequence of an unlooked for *contretemps*, the dentist was unable to administer it. The extraction was therefore performed without it, but the operation was rendered almost painless by the writer vividly imagining pleasant ideas, and mentally repeating to himself, "How delightful! how delightful!" Every one will envy Dr. Tuke his powers of self-control and mental abstraction, and not a few will envy him the possession of ideas which were so pleasant as to preponderate over the wrench of a tooth-drawing. The chapter on the influence of the will upon the voluntary muscles is enriched by a consideration of the facts of "thought reading." Two diagrams have been added, but it is extremely doubtful whether they afford any assistance to the reader in understanding the subject matter of the work. The chapters on psychological and physiological principles are the weak portions of the book.

So long as Dr. Tuke confines himself to the records of occurrences, his narrative power, his simple, clear style, and his conscientious accuracy, render his book both pleasant and profitable; but when he deals with principles and with the reasonings of psychology he exhibits that misapprehension of the main issues involved, which almost every medical writer on mental diseases and mental phenomena has up to the present time displayed. According to Dr. Tuke, not only the special sense-organs, but the special senses, and sensation, special and general, belong to the body and not to the mind. The book is however avowedly written for the purpose of supplying a collection of facts, and not for the discussion of psychological principles, and in its main purpose it is unquestionably successful.

ABSTRACTS AND EXTRACTS.

OBSTETRICS.

On the Prevention and Treatment of Puerperal Septicæmia. A paper read by Dr. T. Gaillard Thomas, on December 6th, 1883, before the New York Academy of Medicine.—After urging the necessity of such a paper at the present time, and describing some of the anatomico-pathological conditions of the parturient state, and the early symptoms of an attack of puerperal septicæmia, he alluded to the difficulty of exactly defining puerperal fever. He would not adopt any definition which did not acknowledge the affection to be septicæmia, no matter what form it assumed. He did not consider "metria" any improvement on the old term. On the other hand, "puerperal septicæmia" conveyed a clear and definite idea of the nature of the disease. Personally, he believed that there was a specific poison, although at present it was impossible to state its exact nature; but it could be introduced into the system in only two ways, viz.: through the atmosphere, or by direct contact of the physicians or nurses' fingers or of clothing or bed-covers with the genital tract. In well-regulated lying-in hospitals positive rules for the prevention of puerperal septicæmia existed; in private obstetrical practice a laxity prevailed which was nearly akin to criminality. The parturient woman should be regarded as a patient about to undergo a capital operation. For prophylaxis in private practice he recommended—1. Clearing the room of every unnecessary article, and sprinkling the floor, walls, ceiling, and furniture with a solution of carbolic acid 10 per cent., or of mercuric chloride ·001 per cent.; 2. Scrupulous cleanliness of nurse and physician, and the use of a disinfecting bath if either has been exposed during the previous fourteen days to the poison of scarlatina or any other septic poison. 3. Vaginal injections of mercuric chloride solution or other antiseptic every four hours throughout labour. 4. The hands, and every instrument or utensil used during labour, to be rinsed with a ·001 per cent. solution of mercuric chloride. 5. Efficient production of the third stage, and the administration of ergot in moderate doses three times daily for at least a week. 6. Careful examination of the genital tract at the end of labour by the physician, who should take nothing for granted, and who must suture a ruptured perinæum, and treat any slight solutions of continuity by the application of ferric sulphate and carbolic acid, and flexible collodion. 7. To give, in six or eight hours, a warm antiseptic vaginal injection, and a vaginal suppository containing iodoform gr. 3 to gr. 5: the injections to be repeated every eight hours, and the suppositories every two or three hours, and kept up for at least ten days. 8. If catheterization is needed, to use only a new gum elastic catheter, previously dipped in an antiseptic solution. 9. The physician should convince himself that the nurse has the ability to use suppositories, syringe, and catheter as required. He strongly condemned the use of intra-uterine injections as a prophylactic, except after very severe operations within the uterus. When septicæmia had occurred, he recommended as treatment—1. Morphia *sub cute*, to allay nervous irritability and pain, employing a new needle, which must be thoroughly cleansed after use. 2. Intra-uterine injections of a warm ·0005 per cent. mercuric chloride solution every three or five hours according to circumstances; ergot and ferric sulphate being always at hand in case of the dislodgment of a thrombus. 3. Reduction of temperature—best effected by Townsend's rubber-coil (a mat composed of a long rubber tube coiled in concentric circles upon itself)—which was placed upon the abdomen, extending from the symphysis pubis to the ensiform cartilage, and through which a constant stream of ice-water was passed. By its means a temperature of 104° F. could be reduced to, and maintained at, 100° F. Its prolonged use was essential, and by keeping hot-water bottles applied to the patient's feet no bad results followed its employment. 4. The use of febrifuges—quinine, Warburg's tincture, salicylate of soda. 5. An ample milk diet, with animal broths. 6. Efficient and abundant assistance. If carbolic acid were employed for intra-uterine injection, a 2-per cent. or 2½-per cent. solution was recommended.—A subsequent speaker pointed out the difficulties in carrying out Dr. Thomas's plan of treatment, especially when the patient was in moderate circumstances.

Gangrene of the Abdominal Integument following Puerperal Parametritis.—Dr. M. Thiede, of Lübeck, relates two cases of the above rare kind, in a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie*. He has not been able to find any previous description of this complication. The first patient, aged 27, delivered of her second child, went on well for eight days. Then she began to have abdominal pain and headache, with sleeplessness and febrile symptoms, and the lochia which were purulent became again sanguineous. The hæmorrhage from the uterus continuing, in spite of general treatment, on the 17th day of the lying-in the interior of the uterus was explored under anæsthesia, some outgrowths from the placental site removed, and the cavity washed out with a carbolic acid solution. From the second day after this treatment the bleeding completely ceased: but febrile symptoms continued, and a firm parametric infiltration developed around the cervix. Signs of cystitis then appeared, and to this was soon added a tender swelling of the integuments on each side along Poupart's ligament. This continued to spread till it reached to within three fingers' breadth of the navel. The swelling was at first hard, then became soft and boggy. On the 23rd day after the operation vesication appeared, then subcutaneous abscesses, and finally the skin sloughed in one piece, leaving a granulating surface reaching from one iliac spine to the other, and to the height already mentioned. Aided by skin grafting, this healed up, and the patient did well. The second patient was aged 25, and had had three children and one miscarriage. A second miscarriage at the third month occurred; and for three days after this the patient went on well. Then came profuse hæmorrhage; and a piece of placenta projecting from the os was removed. This did not stop the bleeding, and therefore, under chloroform, the uterus was explored, the remainder of the placenta removed, and the cavity washed out with carbolic acid. Next day a rigor occurred, and on the 6th day an exudation was to be recognized in the right parametrium, which soon extended behind and to the left of the uterus, and slight cystitis came on. On the 20th day after removal of the placenta, fresh symptoms appeared, severe pain was felt in the lower abdomen, and there was redness, swelling, and tenderness of the skin over the symphysis. In the left inguinal region were inflamed lymphatic vessels. The inflammation spread; vesication, and then gangrene of the skin took place, an ulcer being left measuring about 13 centimetres by 6. There was also suppuration of inguinal glands on both sides. The patient recovered after an illness of about 13 weeks' duration. Dr. Thiede attributes the gangrenous inflammation to septic infection, the skin being predisposed to slough by the pressure and bruising of it necessarily involved in bimanual manipulation of the uterus. We may also mention, points to which Dr. Thiede does not attach much importance, that the patients had been treated, prior to the gangrene, with mercurial inunction, and the application of ice to the hypogastrium. The ice, he says, gave great relief to the pain of the parametritis, so much that when it was removed the patient clamoured for its replacement.

Plaster of Paris Pessaries.—Dr. Lee Read, Professor of Obstetrics and Gynæcology in the Cincinnati College of Medicine and Surgery, describes an improvemens on the method employed by Dr. Dawson, who packed the upper portion of the vagina with absorbent cotton saturated with a mixture of plaster of Paris and water. The main objections to this plan are the persistent pressure necessary to the act of thus packing the vagina; the consequent distortion of the parts, and the liability to cellulitis; and the remarkably short time in which these very absorbent pessaries become fœtid and septic. Dr. Read, therefore, employed a mixture of plaster and water injected from a metallic syringe which was passed into the vagina by the aid of a Sims' speculum, the syringe being gradually withdrawn as its contents were projected. In the bottom of the syringe some dry absorbent cotton was packed, which, being discharged with the plaster, formed an effectual plug, and served the threefold purpose of preventing the escape of the plaster from the vagina, forming a cushioned lower extremity for the plug, and obviating the formation of disagreeable sharp corners. The plaster should remain in the vagina until the secretions have overcome its astringency, when it can be removed without damage to the epithelium; it is then reproduced in rubber, and the vulcanised pessary thus obtained—having a central canal for the escape of secretions—is a satisfactory and valuable instrument. Dr. Reed sometimes treats cases of colpitis with the vaginal plug of plaster of Paris, which is a powerful astringent and an efficient alterant.—*New York Med. Jour.*, Dec. 22, 1883.

Puerperal Diseases.—Dr. Siridey, physician to the Lariboisière Hospital, has just presented to the Académie de Médecine (*Bulletin*, January 22nd) an important work, "Les Maladies Puerpérales," founded on his eleven years' study in his hospital service, into which about 900 women are annually admitted. The opinions held in the work are thus summed up by this author:—1. Essentially puerperal fever has no existence. 2. The diseases of lying-in women are constantly dependent upon two clinical types, which may be distinct or associated, and which correspond to the primary localisation of lesions in the lymphatics or the veins of the uterus. 3. A lying-in woman is simply a patient suffering from a wound, and, as such, is exposed to all the complications of surgical wounds. 4. She does not herself furnish the germs of septicæmia, observation invariably demonstrating the contagion and transmissibility of puerperal diseases, and the infection of their subjects by the mediate or immediate contact of organic substances in a state of putrefaction, &c. 5. Consequently the chief prophylactic indication in puerperal affections consists in placing the lying-in women in the same hygienic conditions as those required in surgical operations.

Ovariotomy in Italy.—Dr. Peruzzi has recently published in the *Raccoglitore Medico* the results of the fourth hundred ovariotomies performed in Italy in the course of eleven months—from June, 1882, to May, 1883. The first hundred occupied eighteen years (1859–77), and the second and third hundred were performed each within two years. The following are the result:—

First hundred,	Recoveries	37,	Deaths	63.
Second „	„	64,	„	36.
Third „	„	74,	„	26.
Fourth „	„	79,	„	21.

Besides the last hundred of the completed ovariotomies, there were also seven incompleted operations, with four recoveries and three deaths.—*Presse Med. Belge*, Jan. 13.

An Antiseptic Post-Partum Pad.—Dr. J. H. Garrigues recommends the following:—After removal of the secundines, the patient is washed with a warm corrosive sublimate solution (1 in 2,000), and a piece of lint 6 inches by 8 inches, folded once, so as to be 3 inches wide, is placed over the vulva; outside this, a piece of oiled muslin 9 inches by 4 inches; over that, a large pad of oakum; and finally the whole is fastened to the binder by a piece of muslin 18 inches square, folded together so as to form a kind of boat, 5 inches wide, and pinned in front and behind at each of its corners. This dressing is renewed four times in the twenty-four hours, and at the same time the genitals are washed with the bichloride solution.—*N. Y. Med. Jour.*, Dec. 29, 1883.

A Plea against Prophylactic Injections after Normal Labour.—Dr. Baruch, under this title, protests, in a paper published in the *New York Medical Journal*, January 5th, against the practice, now becoming prevalent, of employing antiseptic injections after normal labour, for the purpose of prophylaxis. "Sanctioned as it is," he says, "by some of our highest and most justly eminent authorities, the use of prophylactic injections in the puerperal period will surely become a general practice, if the subject be not calmly discussed in the light of experience. If I have aroused attention to the danger which threatens the puerperal woman of the future from this practice, I shall be content. Nothing but a strong sense of duty has prompted me to venture to differ from men whose views I have always regarded with respect, from whom I have learned much in the past, and by whom I expect to be guided largely in the future, when their teachings do not conflict with the results of experience and common prudence."

The Treatment of Ruptured Perinæum by Iodoform.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an article by Dr. C. Behm, on the above subject. He points out that in the region of the vagina and perinæum the efficient application of the ordinary kinds of antiseptic dressing is very difficult, if not impracticable, on account of the unavoidable fouling of them by urine and fæces. Iodoform has the property of closely adhering to wound surfaces, over which it forms a felt-like covering, difficult of detachment. It is, therefore, peculiarly suited to the needs of the ano-vulvar region. The method which Dr. Behm recommends, is the painting the surface of the wound with "Iodoform-collodium" (Iodoform one part, flexible collodium ten parts). He believes that the protective film thus formed does not act as a foreign body, and prevent primary union, but that, on the contrary, by checking secretion, it favours this mode of healing.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, February 20th, 1884.

J. W. Hulke, Esq., F.R.S., President, in the Chair.

Infantile Paralysis.

Dr. Angel Money read notes and showed microscopic sections of the spinal cord from a recent and an old case of infantile paralysis. The recent case was that of a female child, aged two years, who died sixteen weeks after the onset of paralysis of both legs. The old case was that of a boy, aged seven years, who died of diphtheria five years after the commencement of paralysis of the right leg. The limbs of the recent case were much swollen, but did not pit on pressure; they also felt cold and damp. The right limb of the second case was greatly wasted, and considerably shortened, but had no œdema. The microscopical appearances of the two cases presented some striking differences, but Dr. Money believed they were only different stages in the progress of the same pathological affection. In the centre of the lumbar enlargement of the recent case there was great engorgement of the vessels which, indeed, seemed actually blocked with blood; there was great infiltration of the anterior cornua with leucocytes, and the true nerve-cells could not be discriminated. It was further observed that the disease

was not confined to the anterior cornua, but spread away a little in all directions—the morbid appearances were not sharply bounded, but seemed to have ill-defined outlines. The word "splash" would seem best to indicate what was meant. The old case showed almost complete absence of nerve-cells in the right half of the lumbar enlargement, and the anterior cornu was much wasted, being composed of a rather dense nucleated tissue, which stained deeply. The characters of both the spinal cords described, were such as belonged to the midst of the disease—the changes were less marked the farther one went away from the centre of mischief. Dr. Money next spoke of the pathology of the disease. He believed that the majority of cases were of vascular origin. By which was meant the belief that some damage, not of a permanent character, was done to the walls of the blood vessels; and in Cohnheim's view all the phenomena of inflammation ensued on such mischief. Some cases might commence as a hæmatomyelia, but he rather thought that where hæmorrhage did occur it was but an accompaniment of the inflammation; for, again, Cohnheim had shown that where the vascular damage was great, actual blood extravasation took place. It was also known that Charcot and Bouchard had said that hæmorrhage into the grey matter of the spinal cord was always the result of myelitis; but Dr. Money considered that the hæmorrhage and inflammation were but concomitant phenomena, and the result of a previous common cause.

Dr. SHARKEY thought that the capillaries would be in greater number in the grey matter than in the white, and it was the capillary blood supply which was the most important. Then, according to Rolleston, the central nervous system was least likely to be interfered with in its blood supply. It was well known that in starvation the nerve centres suffered least.

Dr. WILKS thought that these theoretical views should be received with caution, the most active parts, functionally, were the most liable to disease, for this reason hemiplegia was very common, the lumbar and cervical enlargements were most actively in use and most liable to disease. The doctrine was not in accord with the views he had always held and taught.

Mr. R. W. PARKER asked how the disease was produced, the spinal cord was so well protected, *e.g.*, from the heat of the sun, and many cases occurred in cold weather. Then, what caused the disease at a particular spot? Many cases, indeed, affected at first a large area of the cord. He would agree that it was a change about the large cells rather than in them.

Dr. CARRINGTON, in regard to the vascular supply of the cord, had found that the blood supply was not nearly so regular or good as was described in books.

Dr. MONEY said that his drawing was very diagrammatic, but his point had been that the grey matter was farthest off from the supply of blood. In regard to the spinal cord being so well guarded, he referred to Moxon's views, and also alluded to the length of the anterior and posterior arteries, it was the pressure rather than the supply that was at fault. He had no reason to explain why one part of the cord more than another should be affected.

Amyotrophic Lateral Sclerosis.

Dr. COXWELL described this case. The patient was a woman, who first lost power in one thumb, then the limbs gradually became affected, and lastly speech. When she came under observation, eighteen months after the onset, she could not stand alone, the faradaic excitability of the muscles of arms and legs was much diminished. She died, with the usual symptoms of bulbar paralysis. At the *post mortem* the cord was atrophied, the crossed pyramidal tract stained deeply, so did the column of Türck. The nerve tubules were much diminished in the lateral columns. In the cervical and dorsal regions multipolar cells were wasted or absent, the grey matter was in places unusually vascular. In the medulla similar changes were found, the nucleus of the hypoglossal nerve being distinctly affected. The case closely agreed with Charcot's description, but the rigidity was less marked, and the onset was unusually definite.

Dr. ORMEROD thought that the order of events was very important; at first there was wasting, but no symptom of lateral sclerosis for some time. It was usually held that the reverse took place, and that the sclerosis commenced in the lateral columns, and spread thence to the grey matter. The case was one of a combined systematic sclerosis.

Dr. BEEVOR referred to a case he had already published in *Brain*—atrophy of hands, bulbar paralysis, then stiffness of the limbs, was the order of events in his case.

Dr. COXWELL referred to the difficulty of deciding where the disease commenced.

Malignant Disease of the Mesentery.

Dr. SAINSBURY described this case. The patient complained of weakness and loss of flesh; then anæmia was noticed, and a tumour in the hypogastrium. There was some fever not explained by the physical signs; later on there was abdominal pain and tenderness, and he died of peritonitis. A large mass was found in the hypogastrium, containing a large cavity, which had ruptured into the peritonæum. It seemed to be confined to the mesentery, and the other viscera were healthy. It was impossible to determine whether it had originated in a gland or not. He referred to a similar case, recorded in the Transactions, vol. xx, by Mr. Arnott, and one by Mr. Callender, in vol. xv. He noted that the tumour was almost confined to the mesentery, and that it had probably undergone necrosis in its centre, and had thus become hollowed out. He discussed the clinical symptoms at some length, and especially the movable nature of the tumour, the cachexia, and the pyrexia to which he had already called attention. The tumour was a round-celled sarcoma.

Mr. DORAN asked as to the presence of ascites. He had found no definite relation between malignant disease of the omentum and ascites, in a somewhat large experience. He asked whether there was any pleurisy in this case.

Dr. SAINSBURY said that no ascites had been recognised during life; the peritonitis was quite recent. There was only an old patch of pleuritis.

Malignant Disease of the Peritonæum.

Dr. HOBSON described the case of a woman who had a large accumulation of fluid in the peritonæum, and was tapped several times; nodular masses could be felt after the tapping. The disease was first recognised after her delivery. She died two months later. At the autopsy the peritonæum was universally adherent, and a multilocular cystic growth was found. Microscopically, the growth did not seem to conform to any of the ordinary types, as the cells were of varied shapes. This case closely resembled one described by Mr. Knowsley Thornton in the Society's Transactions.

Mr. DORAN said that occasionally large multilocular cysts ruptured, setting up small tumours which repeated the character of the original tumour. In a less malignant form, often small growths were secondarily deposited, but without doing much harm.

Two cases of Purpura Hæmorrhagica, in which Bacilli were present.

Mr. WATSON CHEYNE showed some sections from fatal cases of purpura hæmorrhagica. Dr. Russell's case was that of a girl, aged twelve years, who died of purpura; at the *post mortem*, the spleen was not much enlarged; on examining the heart, he found sub-exocardial hæmorrhages, with the capillaries, blocked by plugs of masses of bacilli, some of which contained spores; they had no peculiarities. They had evidently been growing for some time. Dr. Pye Smith's

case was a boy, aged fourteen, who had never bled before. He had ailed ten days, bleeding from gums and nose. Purpuric spots appeared. The hæmorrhage ceased, but he died from anæmia. Ecchymoses of nearly all his membranes, and hæmorrhages in the brain, lungs, tonsil, and testicles were found. On examining the lungs near the hæmorrhages, the vessels were found completely blocked with plugs of organisms, *i.e.*, micrococci forming long chains, they stained well with methylene blue. There were none in the other vessels. In one tonsil, deep down, he found some vessels plugged, but not in the heart, of which, however, only a superficial portion was examined. He concluded that these cases of purpura were associated with bacilli, which plugged the vessels leading to hæmorrhages, the organisms were different in the two cases, he could not explain this. He suggested that the primary affection resulted in such an altered condition of the fluids of the body, that some of the many organisms present in the mouth and alimentary canal, might be able to penetrate into and live in the blood, and thus form emboli.

Dr. PYE-SMITH said his case was a very typical one of purpura hæmorrhagica, there was no doubt that the organisms were micrococci in this case. In purpura mechanical lesions often caused fresh hæmorrhages. The blood was examined during life, but not for micro-organisms.

Dr. MONEY had examined the blood in two cases, and had not succeeded in finding any micro-organism.

Dr. STEPHEN MACKENZIE said it would be hasty to assume that organisms would always be found on the strength of these two cases. He referred to iodic purpura, which could not be attributed to an organism, owing to the rapidity with which the purpura came on. He said this without wishing in the least to disparage the work of Mr. Watson Cheyne.

Mr. BARWELL made a few brief remarks.

Mr. CHEYNE, in reply, said that the examination of the blood was not likely to lead to anything. This enquiry was, he thought, more difficult than that of any of the other forms of bacilli.

Living Specimen.

Mr. DENT showed a woman, aged 57, who had suffered from perforating ulcers of each foot.

Card Specimens.

The PRESIDENT.—Two drawings of cases of cancer of the breast.

Mr. SHATTOCK.—A cast of a double vena cava, the left being the larger.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 6TH, 1884.

DR. GERVIS, President, in the Chair.

Auvard's "Nest."

DR. MATTHEWS DUNCAN exhibited the "nest" or "incubator" of Dr. Auvard. A similar machine had been used for some years in the Paris Maternité by Dr. Tarnier, but upon this Dr. Auvard's was an improvement. It was planned to maintain a uniform temperature. It was simple, cheap, and useful. Dr. Auvard stated that by its use, the mortality of children under 2,000 grammes weight at birth had been reduced from 65 per cent. to 38 per cent. The child was placed in it clothed. The machine was kept warm by hot-water bottles, the air moistened by passing over damp sponges, and ventilation kept up and watched by a little anemometer. Any ordinary nurse could easily manage the whole matter.

Dr. FANCOURT BARNES had seen a similar machine in use at the Hôpital Tenon. He believed that Dr. Tarnier, not Dr. Auvard, was its originator.

Hearson's Incubator.

Dr. GODSON exhibited Hearson's incubator, and introduced its inventor, who explained it.

Monstrosity.

Dr. HORROCKS exhibited this specimen, which belonged either to the order exencephaliens or pseudencephaliens; it was not possible, until it had been dissected, to say which.

Uterus removed per Vaginam.

Dr. W. A. DUNCAN exhibited an entire uterus with epithelioma of the cervix, successfully removed per vaginam, by Schröder's operation.

New Cephalotribe.

Dr. FANCOURT BARNES exhibited a new cephalotribe he had had made. It was long, with a French lock, the perinæal curve, and Aveling's handle-curve. It allowed traction to be made in the brim of the pelvis.

The PRESIDENT was accustomed to use Hicks's cephalotribe.

Dr. ROBERT BARNES had put this instrument to a practical test, having used it in a case of contracted pelvis, in which he had failed to deliver both with his own forceps and with Tarnier's. It worked admirably, and he thought it might be stamped *probatum est.*

The business of the annual meeting was then proceeded with. The list of officers proposed by the Council was accepted by the Society, and the President delivered an address.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 8TH, 1884.

GEORGE P. FIELD, M.R.C.S., President, in the Chair.

UPON taking the Chair for the first time as President, Mr. GEORGE P. FIELD addressed a few words to the meeting, congratulating the Society not only on its successful career in the past, but on its present prosperity, shown by the number of its members and the sustained fulness of its meetings, and especially on the promise of its increasing usefulness in the future, of which no better proof could be given than the titles of the papers to be read at the ensuing meetings during the session. For much of this success the Society was indebted to the untiring zeal of the hon. Secretaries, Dr. W. H. Lamb, whose labours had just come to an end, and Mr. J. Ernest Lane.

Sub-periosteal Hæmorrhage in Infantile Scurvy.

Mr. EDMUND OWEN recorded a case of Infantile Scurvy, the patient, a girl of twenty months, having recently been under his care at St. Mary's Hospital. She was anæmic and of leaden hue, and lay moaning in bed; her right lower extremity was immensely swollen from sub-periosteal hæmorrhage around the femur; the skin was white, tense, œdematous, and glistening, it was never reddened or hot. The gums were swollen, spongy and bleeding; the ribs were beaded, and the radii enlarged at the carpal end. The mother had died of phthisis, and the infant had been brought up on condensed milk and the various patent foods—a typical scurvy diet—with none of that valuable anti-scorbutic, fresh cow's milk. The treatment comprised warmth, cod-liver oil inunctions, fresh cow's milk and water, and the sweetened juice of fresh oranges, and vegetables, together with elevation and compression of the limb. The surface of the femur, explored with a fine canula and trocar, was found extensively stripped of its periosteum, but there was no suppuration. At once the

patient began to improve, and in four weeks its convalescence was completely established, the effused blood being entirely absorbed. Mr. OWEN expressed surprise at such cases being so rarely recorded in London, where many hand-fed children subsisted on a scurvy diet. Possibly some genuine cases of infantile scurvy were overlooked by the practitioner, because the gums did not happen to be spongy; or again, as had been suggested by Dr. Cheadle, the scorbutic origin of certain spongy gums might not be recognised because the other signs of scurvy were absent. The characteristic symptoms of scurvy did not always go hand-in-hand. He concluded with a strongly adverse criticism of the general employment of condensed milk, and of the speciously advertised artificial foods, without any adequate supply of fresh milk; often infants refused cow's milk because it was not sufficiently diluted.

Dr. BUZZARD, from his experience of scurvy in the Crimean war, expressed the opinion that association with rickets was by no means necessary for the production of such a condition as that described by Mr. Owen. He had seen many instances of periosteal hæmorrhage occurring along the front of the tibia for example, and on the inferior maxilla in men suffering from scurvy alone. Nothing could be more important than the observations of Dr. Barlow, Dr. Cheadle, and others, upon the condition found in improperly fed children. Although usual, sponginess of the gums was no necessary symptom of scurvy; he thought it might be absent in about twenty per cent. of the cases, even when the other features were very strongly marked. Another diagnostic point of great importance was the presence of ecchymoses, often overlooked or attributed to accidental bruises. The recognition and appropriate treatment of a scorbutic affection rescued a patient from grave peril, and ensured a recovery remarkably rapid and complete.

Dr. CHEADLE stated that he had studied the disease in seven children, his observations having being the first to draw attention to the subject. He attributed the malady to the use of artificial foods, which lack the fresh vegetable quality, and are generally deficient in nitrogen. This evil should be met, in cases where cow's milk is not tolerated, by raw meat, meat juice and potato-mash. He had, however, seen a case of infantile scurvy, recover completely under the exclusive use of Swiss milk. He endorsed Dr. Buzzard's remarks concerning spongy gums, but in his experience bruises were not often observed.

Dr. SYMES THOMPSON alluded to the causation of pulmonary hæmorrhage from a scorbutic tendency, and gave an instance in point.

Mr. JOHN MORGAN pointed out that the sub-periosteal hæmorrhage showed no tendency to suppuration in scurvy, and submitted that the hæmorrhagic affections might involve the medullary cavity of bone as well as the surface.

Mr. PEPPER suggested that effusions of blood, such as those displayed in the specimens exhibited, were not infrequently the artificial result of injections performed after death. It should be borne in mind in diagnosing rickets, that beading of the ribs might be physiological.

In his reply, Mr. OWEN stated that he had failed to discover in rickets that tenderness of the bones which Sir William Jenner had described.

Deformities of the Fingers and Toes.

In an interesting paper Mr. NOBLE SMITH reviewed the following subjects:—(1.) Congenital hypertrophy of fingers and toes. (2.) Deficiencies of digits. (3.) Rudimentary digits. (4.) Intra-uterine amputations, &c., by the pressure of the umbilical cord, or of fine membranous bands. (5.) Budding of digits at the extremity of a stump. (6.) Double-hand. (7.) Supernumerary digits. (8.) Cleft thumb. (9.) Union of fingers at tips. (10.) Web formations. (11.) Permanent contraction of fingers. The ætiology and the surgical treatment of many of these conditions were discussed in the paper, and illustrative drawings were circulated.

In the ensuing discussion, Dr. THOMPSON and Mr. PEPPER referred to the subject of maternal impressions, and after Mr. NOBLE SMITH'S reply the meeting was adjourned.

GENERAL CORRESPONDENCE.

THE DEBATE ON CHOLERA.

[To the Editor of the Medical Times.]

SIR,—In the leading article, on "The Debates on Cholera at the Epidemiological Society," in the *Medical Times and Gazette* of 16th instant, the following occurs:—

"Setting aside the opinions of such extreme partisans as Inspector-General Lawson, who, as our readers may remember, ignoring entirely the results of recent microzoic pathology, denied in a communication to our pages, last July, that there was any evidence of the existence of a material entity passing from one individual to another in small-pox or scarlatina (though he did not reply to our question as to vaccination!) we may venture to express our belief that the dispute is, as regards most, a battle of words."

This serious accusation is, on the part of the writer, verily something more than "a battle of words," for every allegation in it is groundless. My letters appeared in the numbers for the 4th and 11th August (not July); neither small-pox nor scarlatina was even incidentally alluded to in them; and the question as to vaccination, which it is insinuated I was so much to blame for not answering, is not to be found among the comments appended by the Editor to my first letter. The part played by microzoic organisms in the production of cholera has yet to be determined, and, until this be so, any view adopted regarding their operation is but an assumption, and forms a very unsafe basis for further generalisation.

I leave it for the readers of the *Medical Times and Gazette* to consider how far they can place confidence in the judgment and dicta of a critic, who allows himself to form and to emit opinions for their guidance, so completely at variance with facts.

I am, Sir, &c.,
ROBT. LAWSON,
Inspector-General.

London, February 18th, 1884.

[If in our article, hastily written during the night following the adjourned debate at the Epidemiological Society, we did not fairly represent Inspector-General Lawson's personal views, we owe him an apology, and must express our satisfaction at finding that he is not so extreme a partisan as we thought him; but when a man takes up arms in defence of a friend's opinions, he cannot complain if he is supposed to hold the same, or if an opponent writing from memory, identifies the two. If Mr. Lawson will refer back, as we have since done, he will find that the controversy began on July 21st, when we criticised Surgeon-General Cuningham's paper, in a leader entitled "Credulity, Scepticism and Agnosticism in Science," and he will see that we there denied as strongly as he could wish that cholera and enteric are contagious in the same sense as small-pox and scarlatina. Yet it was this article that called forth his protest in the August numbers, and this it was that contained the appeal to vaccination, and the challenge, also unanswered, to Dr. Cuningham to drink, if he dared, cholera stools. We still maintain that the language used by Dr. Cuningham perfectly justified our criticisms, severe though they may have been. We could fill two pages with extracts to our purpose, but must content ourselves with a few. In p. 60, col. 2 (July 21st), Dr. Cuningham says [the italics are ours], "Germs are supposed to account not only for cholera, *small-pox* and *enteric fever*, but also for *tubercle* and ordinary malarial fever . . . . but, as a matter of fact, do these germs really exist? Have they been found in diseases such as small-pox . . . . Is there a single organism derived from a person suffering from a particular disease which can be said to be the cause and not the consequence of that disease? Is there a single organism found in disease which alone is capable of producing that disease?" He here places small-pox between

cholera and enteric fever, which we do not, while to each of the questions that follow we answer unhesitatingly—Yes. It was in small-pox and cow-pox that such germs were first recognised by Chauveau and Sanderson, and found capable of reproducing the disease when separated from the pus-cells and clear albuminous fluid. And whether or not Spina has found other bacilli indistinguishable from those of tubercle, microscopically and chemically, matters little, though Dr. Cuningham urges it as disproving the specificity of the latter, for this has been placed beyond question by the experiments of Mr. Watson Cheyne, who, with invariable success, produced tubercle in the eyes of rabbits by the inoculation of the special bacillus, after hundreds of cultivations in gelatine. It was these researches in particular which we considered had been ignored by Dr. Cuningham. Dr. Cuningham (page 61, col. 2) says, "I venture to think that there is very little to support the theory, that either cholera *or enteric fever* is due to a specific poison. . . . . You will ask, then, what can be the cause or causes of this *and other diseases?*"—and he goes on to explain them by *forces* rather than by *entities*. "The doctrines," he says, "which have been so commonly preached of late regarding germs, and the danger arising from the sick, have been attended with most disastrous consequences, and there seems every reason to fear that *these disastrous consequences may increase* rather than diminish. Much domestic misery is caused by the removal of a sick person from the midst of his family . . . . . to die in a hospital, unattended by those whose duty, under any circumstances, was to have nursed them in their extremity." Surely, if these earnest warnings have any meaning, they are directed against the notification of infectious diseases, and the establishment of special hospitals for small-pox and fevers generally, and are not intended to refer to cholera alone, if, indeed, at all. With Dr. Cuningham's paper before us we cannot retract a word we have written; the head and front of our offending is that, when Mr. Lawson came forward as the avowed champion of "his friend Dr. Cuningham," we assumed that he held the same views, and after the lapse of six months thought only of the foeman with whom we had actually exchanged blows.

We do not write without any practical acquaintance with our subject, having worked in the midst of cholera albeit in London only; our views on the subject of its ætiology and communicability may have acquired greater precision by study, but are essentially unchanged, and we would invite friendly criticism of them as set forth in our articles on "The Propagation and Prevention of Cholera;" "Credulity, Scepticism, and Agnosticism in Science;" "Dr. Hunter in Egypt," last year; and that on "The Adjourned Debates" in this.

THE WRITER OF THE ARTICLES IN QUESTION.]

P.S.—Unfortunately the postal pressure of St. Valentine precluded proper correction of the last article, in which, besides inaccurate punctuation, which mars the sense in some places, two errors occurring in one sentence, "specialty" for "specificity," and "to be" for "to beg the question," may lead to misapprehension of our meaning.

AMENORRHŒA AND VICARIOUS MENSTRUATION.

[To the Editor of the Medical Times.]

SIR,—I have little to object to in Dr. Bantock's criticisms of my letter on Amenorrhœa and Vicarious Menstruation, seeing that this gentleman's opinion accords in the main with my own; but I feel bound to reply to his expression of surprise at my statement, that amenorrhœa is still treated as a substantive complaint by gynæcologists. I said this advisedly, and will explain my meaning by examples lately under my notice:—that of a young lady with chlorosis, who is taking permanganate of potash because she is informed it has a very special power over the uterus; the case of a lady who is having some instrument applied internally, this being a method of stimulating the uterus, as I am informed, recommended by the late Sir J. Simpson; and thirdly, the case of a young lady, the subject of numerous troubles, amongst which amenorrhœa takes a very prominent place in her mother's eyes, who has her under the care of a well-known gynæcologist, and had a galvanic current assiduously passed through the lower regions of the body for several months, I need scarcely add, without any effect. Of course, I do not allude to the action of mothers who so frequently take their chlorotic daughters to specialists.

Your obedient servant,
SAMUEL WILKS.

Grosvenor Street,
February 16th, 1884.

VICARIOUS MENSTRUATION.

[To the Editor of the Medical Times.]

SIR,—I think with such a mass of evidence as that presented in section 1,143, 2 and 3 of the *Medical Digest*, together with an equal number of cases that have been since recorded, which will appear in the "Appendix," no one can doubt that there is some connection between the appearance of blood in different parts of the body and the menstrual crisis.

Yours obediently,
RICHD. HEALE, M.D. Lond.

60, *Boundary Road, South Hampstead, N.W.*
February 20th, 1884.

NEW INVENTIONS & IMPROVEMENTS.

THE WYETH HYPODERMIC CASE.

THE Wyeth compressed hypodermic tablets, introduced into this country by Messrs. Burroughs, Wellcome & Co. of 7, Snow Hill, E.C., have been so favourably received, and are so widely used by the profession, that we need only refer in brief terms to the hypodermic case recently introduced by the same firm. It contains a hypodermic syringe with two needles and sixteen small tubes, holding as many different kinds of hypodermic tablets,

forming a very complete therapeutic armamentarium. The tubes are retained in their places by little springs, which act very effectively. The case before us contains tablets of sulphate and bimeconate of morphia in different doses, atropia singly, and combined with morphia, each in two different doses, and tablets of strychnine, apomorphia, perchloride of mercury, digitalin, pilocarpin and aconitia. The hypodermic method of drug exhibition has two great advantages over other modes of administration. In the first place, it involves a certain amount of trouble and ceremony, and is not likely to be lightly adopted, or without some definite therapeutic end in view; and in the second place, it renders polypharmacy, or at any

rate simultaneous polypharmacy, impossible. The hypodermic syringe bears to the medicine phial somewhat the same relation that the consultant bears to the general practitioner—it is only to be used when there is something serious the matter.

PINE EXTRACT (FOR BATHS).

Under the name of "Pine Extract," Messrs. Christy and Co., of 155, Fenchurch Street, E.C., have introduced a preparation of the active principles of the pine, made from the fresh needles, which has been widely used as an addition to baths at Homburg, Grund, and other German watering-places. There can be no doubt as to the stimulating influence which the oleo-resins of the pine family exert, in a concentrated form, upon the skin, and in an extremely diluted form upon the mucous membranes. The idea of applying them in a diluted form to the skin, not with any definite object, as to cure a patch of eczema or psoriasis, but with the view of exerting a mild stimulation on the whole surface of that important and sensitive organ, is by no means a new one. Tar-water was a well known and much lauded specific in the last century, and a decoction made from fir tops is a domestic remedy in France, widely used both for external application and for inhalation. For infants, with their sensitive skins, Christy's Pine Extract, used in the daily bath, provides a perfectly safe means of general stimulation, difficult to obtain in other ways; and it would be worth trying in the case of adults, in whom there is a want of tone in the skin, and an undue tendency to perspire. It certainly provides a more rational means of treating such functional disturbance, if it is to be treated, than the exhibition of internal or hypodermic remedies.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, February 14th, 1884:—

Hall, William Geo., Swindon, Wilts.
Hill, Geo. Wm., Sydney-street, South Kensington, S.W.
Livermore, Wm. Leppingwell, Queen's-road, Finsbury-park, N.
Martin, Thos. Berkeley, Hylton-road, Sunderland.
Nicholson, Henry Gilbert, St. Peter's-square, Hereford.
Waters, Avery Clough, Mornington-road, Bow, E.

The following gentleman also, on the same day passed the Primary Professional Examination:—

Thomas, Edwin Clifton, of the London Hospital.

Army Medical Department.—List of Candidates who were successful for appointments as Surgeons in Her Majesty's British Medical Service at the competitive examination in London, on February 4th, 1884. The marks shown are those which were gained in order of merit:—J. R. Barefoot, 2,440; R. H. Clement, 2,420; G. D. Hunter, 2,335; W. C. Beevor, 2,300; L. E. Anderson, 2,275; G. B. Russell, 2,250; A. E. C. Spence, 2,220; J. R. Mallins, 2,200; R. J. McCormack, 2,180; H. N. Thompson, 2,169; J. I. P. Doyle, 2,145; N. Manders, 2,120; L. R. Colledge, 2,100; S. F. Freyer, 2,075; C. Birt, 2,070; R. S. F. Henderson, 2,020; H. Mitchell, 2,000; S. Butterworth, 1,990; C. J. Holmes, 1,930; J. R. Lane, 1,920.

Naval Medical Department.—At the competition for Commissioners in the Medical Service of the Royal Navy, held on the 4th February and following days, in the Hall of the University of London, Burlington-gardens, the undermentioned gentlemen were the successful candidates. The marks shown are those which were gained in order of merit:—F. M. Puddicombe, 2,425; D. S. Gunn, 2,230; H. J. Gordon, 2,220; H. Harris, 2,200; E. Corcoran, 2,145; Thomas J. Lloyd, 2,145; J. L. Smith, 2,140; J. H. Thomas, 2,130; F. J. Lilly, 2,120; J. Dowson, 2,070; G. F. Dean, 2,055; G. Welch, 2,050; H. F. Iliewicz, 2,030.

The Indian Medical Service.—The following candidates were successful at the recent competitive examination. The marks shown are those which were gained in order of merit:—J. H. T. Walsh, 2,564; H. Hendley, 2,110; H. E. Banatvala, 2,102; G. H. Fink, 2,071; W. G. P. Alpin, 2,040. There were twenty-one candidates for the five appointments, and all were reported qualified.

Lady Medical Students.—At the present time there are 45 lady medical students in Paris, the great majority of whom are Sclavs. At Liège the number has increased this year from five to 26. In Switzerland there are 68—viz., seven at Geneva, 33 at Zürich, and 28 at Bern; none studying at the Basle Faculty. Pretty well received in France, and thought but little of in Switzerland, lady medical students at St. Petersburg, if not actually imprisoned, are compelled to board in a kind of barrack, under the superintendence of the authorities; so that it is not surprising that whenever they can, these medical aspirants resort to Paris, where they meet with a more liberal hospitality.—*Gazette Méd.*, February 16th.

The Medical Times and Gazette.—Our courteous contemporary the *Boston Medical and Surgical Journal*, thus appreciates the new stage in our progress which we have lately entered upon. "The *Medical Times and Gazette* comes to us in its first issue for 1884, in an enlarged and much improved form. Its table of contents indicates a high order of excellence, and in general this periodical is evidently to become, if it is not so now, one of the most useful of the English medical publications."

Improved Sanitary State of Rome.—Professor Scalzi, a member of the Superior Council of Health, in his report to the Academy of Medicine at Rome, states that while from 1871 to 1880, in a population of 270,495, the mortality was only 5,798 (21·43 per 1,000). During the same period 1861–70, it amounted to 5,785, in a population of 207,956, or 27·81 per 1,000. Thus, during the later decade, there has been a mortality lower by 6·38 per 1,000, than during the preceding ten years.

Society for Relief of Widows and Orphans of Medical Men.—An extraordinary Court of Directors of the Society was held on January 23rd, to receive the resignation of Sir George Burrows, Bart., President (Sir Henry Pitman, V.P., in the chair). Mr. Charles Hawkins, V.P., moved, and Dr. Quain, Treasurer, seconded, the following resolution: "The Court of Directors, in accepting the resignation of Sir George Burrows as President of the Society, desire to place on record its high appreciation and grateful sense of the valuable services he has rendered in this capacity. The constant watchful and benevolent interest which, for seventeen years as President, he has taken in the affairs of the Society has in a great measure contributed to its successful management and its present prosperous condition, and this Court feels confident that Sir George Burrows, on retiring from the office of President, will carry with him the affectionate regard of the entire Court of Directors, and the esteem and gratitude of every member of the Society." Mr. Charles Hawkins moved, and Dr. Quain seconded, "That Sir James Paget, Bart., be nominated as President in the place of Sir George Burrows, Bart., resigned, and that an extraordinary general meeting be called for Friday, February 8th." In accordance with the above resolution, an extraordinary general meeting of the Society was held on Friday, February 8th, Dr. Harvey Owen, V.P., in the chair, and Sir James Paget, Bart., was unanimously elected President of the Society. The members present adopted the resolution carried at the extraordinary Court of Directors, on the resignation of Sir George Burrows, Bart., and requested the Secretary to forward a copy of it to the late President.

International Health Exhibition.—Preparations for the holding of this exhibition are proceeding rapidly. The general committee now numbers nearly 400 members, and from these seventeen sub-committees have been formed. These have all been doing valuable work in advising the executive council as to the nature of objects which it is desirable should be fully illustrated, in obtaining the co-operation of many persons of eminence in the various branches on which the exhibition will treat, and in super-

vising the applications for space. The allotment of space, which has been largely applied for, is being rapidly proceeded with, and applicants will soon be informed of the decision of the executive council with regard to their applications. In response to a request made by His Royal Highness the Prince of Wales, president of the exhibition, the eight Water Companies of London have resolved to exhibit, in a pavilion which is being erected for them, their appliances for the supply, filtration, &c., of water, together with diagrams showing the various processes and localities; and a powerful sub-committee, under the active chairmanship of Colonel Sir Francis Bolton, has been formed to carry out this branch of the exhibition. It is impossible, as yet, to give any definite information with regard to foreign countries; but, so far as we can judge at present, Belgium, China, and India will be the best represented. A Royal Commission has been appointed in Belgium, and the Consul-General in London is their active representative here. To China has been allotted the space which it occupied last year at the Fisheries Exhibition, and a Chinese Tea Garden, Restaurant and Shop will not be the least interesting objects in the exhibition. India is to be adjacent to China, and strenuous exertions are being made to secure the united action of many of the principal tea planters in India, so as to insure a good and representative show of the Indian tea-growing industry.

The Operations in the Red Sea.—It has been decided that the strong detachment of the Army Hospital Corps, which has been ordered to Egypt, will proceed direct to Suakim. It had been previously arranged that the detachment would go to Cairo in relief of the company of the corps already *en route* from there to the scene of operations. Immediately on receipt of the news of Baker Pasha's defeat, Surgeon-General J. Irvine ordered a detachment of medical officers to Suakim, and, with those now *en route* and in readiness to proceed, the medical force at that place will suffice for any emergency. General Stephenson has expressed to Dr. Irvine his approval of the promptness of action of the medical department of the army of occupation in Egypt.

East London Nursing Society.—The annual meeting of this Society was held on Monday. The report mentioned that Princess Christian had consented to become president of the institution. During the year the Society had added two districts to its list, making a total of fifteen parishes worked by the Society. The total receipts for the past year amounted to 1,183*l.* 11*s.* 9*d.*, and the expenditure to 961*l.* 15*s.* 11*d.* The number of cases attended by the Society's nurses was 2,060, and the number of visits paid to patients 43,137.

Navy Medical Service.—The following gentlemen have been appointed surgeons of Her Majesty's Fleet:—Messrs. Francis M. Puddicombe, Donald S. Gunn, Henry J. Gordon, Henry Harries, Edmund Corcoran, John L. Thomas, James L. Smith, M.B., John H. Thomas, Frederick J. Lilly, John Dowson, George F. Dean, M.B., George Welch, and Henry F. Iliewicz.

Nursing in the Navy.—The Lords of the Admiralty have decided to abolish the present staff of hospital nurses, and to replace them by men chosen from the Fleet, who are to receive special training at the hospitals. They will thence be drafted to sea; but, on paying off, will return to their hospitals instead of being sent to the depôt ships as at present.

Contagious Diseases at Aldershot.—The sanitary officer at Aldershot, Deputy-Surgeon-General Thompson, reports that since the suspension of the restrictions imposed by the Contagious Diseases Acts in May last, the influx of vagrant prostitutes has immensely increased, bringing in their train, infection, disease, and dirt, and many other unsanitary influences, thus, no doubt, affecting the health of the troops in the vicinity. The admissions to the military hospitals had increased 50 per cent., while the admissions to the Lock Hospital were nil; the fact is, that women will not now go to this institution until their cases are hopeless. The number of prostitutes had increased twenty per cent.

Deaths from Eating Tinned Meat.—Two boys, residing at Glasgow, died suddenly last week after partaking of a portion of tinned mutton. A surgeon who was called after the death of the boy Webster, certified that he had died from the effects of poison. From enquiry subsequently instituted, it was ascertained that twelve or fifteen persons had been supplied from the same tin, and that in each case sickness, accompanied by vomiting and purging, had followed on partaking of the meat. The body of the boy Miller is to be exhumed, and the police are enquiring into the case.

M. Pasteur.—The National Society for the Encouragement of Agriculture, at the fifth anniversary banquet on Friday last, presented its annual Cup of Honour to M. Pasteur. In returning thanks, M. Pasteur said he was not insensible to praise, but yet praise troubled him, because it belonged to the things of yesterday, and true science always looked forward to new achievements. "There is a great field still to explore," he added. "How many plagues and diseases are there yet to subdue! But have confidence; new methods are discovered, and methods are the soul of science. The great fact evidenced by our meeting here to-night is, the alliance between science and practice. You were the first to believe in the triumph of the experimental method. You have enabled me to carry into the domain of fact, what formerly would have remained in the region of hypothesis. Your farms have been, so to say, branch establishments to my laboratory. The faith which animated me you have shared, and you have largely contributed to help me to add to the wealth of France, which has abundantly requited me."

Lectures at the Royal College of Surgeons.—Prof. Flower will commence his course of nine lectures on the principal types of the human species, in the Theatre of the Royal College of Surgeons, on Monday next, the 25th instant, at four o'clock. The following is the programme of the course, which will conclude on Friday, March 14th:—Introduction: Anthropology and Ethnology; Physical or Zoological Anthropology; Nature and extent of the differences between the permanent types or races of Men, illustrated by comparison between the European and the Tasmanian native; Methods of estimating the differential characters of the various modifications of the human species,—Elements of Craniometry; Characteristics of the Black, or frizzly-haired races, in their typical and modified forms; Characteristics of the Yellow, or so-called Mongolian races; Characteristics of the White, or so-called Caucasian races; Races not readily grouped under either of the above principal types; Classification of the races of the human species.

The Chemical Lung.—On Thursday next, at the Parkes Museum, Dr. Richard Neale will explain the theory and action of the chemical lung adapted to sick-rooms, infectious wards, and other places. Dr. B. W. Richardson will take the chair at 8 p.m.

Royal Institution.—Professor Tyndall will begin a course of six lectures on "The Older Electricity; its Phenomena and Investigators," on Thursday next (February 28th), illustrated by experiments; and Captain Abney, R.E., will begin a course of six lectures on "Photographic Action, considered as the Work of Radiation," on Saturday (March 1st). Professor Hughes will give a discourse on Friday evening next, on "Theory of Magnetism," illustrated by experiments.

Poor-Law Medical Officers' Association.—At a meeting of the Council of the Poor-Law Medical Officers' Association, held at their rooms, 3, Bolt Court, on the 19th of February, it was resolved that a memorial should be addressed to the President and Fellows of the Royal College of Physicians, the President and Council of the Royal College of Surgeons, and the Master and Wardens of the Society of Apothecaries, praying that they will severally memorialise Her Majesty's Government in favour of an amendment of the Poor-Law Medical Officers' Superannuation Act, whereby its present permissive clauses may be made compulsory.

Royal College of Surgeons of England.—At a meeting of the Board of Examiners in Dental Surgery on

the 18th, 19th; and 20th inst., the following gentlemen, having passed the required examination, were admitted Licentiates in Dental Surgery, viz. :—Messrs. Herbert Apperly, Stroud, Gloucestershire ; A. W. Percy Ayres, Stratford Place, N.W.; S. Charles Buckland, Wimbledon Park ; A. Makinson Fox, Teddington ; Harry Baldwin, Moore Street, S.W. ; Stephen Mundell, Castley, near Leeds ; R. Denison Pedley, member 18th July, 1883, Railway Approach, London Bridge.

The City Dispensary.—The ninty-fifth annual festival was held on Tuesday evening, at the Albion Tavern, the Lord Mayor presiding. At the close of the evening, donations to the amount of 380*l.* 7*s.* were announced.

Edinburgh University Tercentenary.—The following programme has been issued of the ceremonies by which the close of the 300th session of the Edinburgh University will be celebrated. The festival is to extend over Wednesday, Thursday, and Friday, 16th, 17th, and 18th of April. It is proposed that on Tuesday evening a grand reception shall be given by the magistrates and council in the Museum of Science and Art. On Wednesday the new College Buildings will be formally opened, and it is understood that the Senatus are endeavouring to get a member of the Royal family to undertake this duty. The proceedings on this day will begin with a reception by the Senatus in their hall, then there will be a religious service in St. Giles', and afterwards the opening of the College Buildings will take place. On Thursday, or on one or other of the specified days, there will be a graduation ceremonial, at which a number of honorary degrees will be conferred. On Thursday evening there will be a grand banquet, probably in the Corn Exchange ; on Friday afternoon a students' concert, and on the evening of that day a ball. It is not unlikely that in connection with the celebrations an illumination of the principal streets of the city will be recommended by the magistrates and council, though this has not been finally determined.

Calcutta Exhibition.—Messrs. W. A. Ross and Co., of Belfast, have been awarded two Gold Medals at the Calcutta Exhibition ; one for their Aërated Waters, and another for their Lime Juice. In addition to these they have received a Silver Medal for excellence in Cordials.

APPOINTMENTS.

Angus, J. A., M.R.C.S.—Medical Superintendent to the Hospital for Incurables, Newcastle-on-Tyne.

Baynes, James, jun.—Reappointed Analyst for one year, York (East Riding).

Daly, Charles A., L.R.C.S. Ire., L.K. & Q.C.P. Ire.—Medical Officer to the Houley District, Huddersfield Union.

Fairer, Matthew R., M.B., M.C. Edin.—Medical Officer to the Workhouse and the Kirkby Stephen District, East Ward Union.

Fitch, R.A., M.R.C.S., L.R.C.P.—Resident Surgeon to the Birmingham General Dispensary.

Gayton, William, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer to the North-Western District Asylum, Metropolitan Asylum District.

Gibbes, H., M.D.—Lecturer on Morbid Histology in the Medical School of the Westminster Hospital.

Good, Fredk. T., M.R.C.S. Eng., L.S.A.—Medical Officer to the Second District, St. Neot's Union.

Gray, E. B., M.D., M.R.C.S.—Honorary Physician to the Radcliffe Infirmary, Oxford.

Hargreaves, J. B., F.R.C.S.—Consulting Surgeon to the Imperial Union Accidental Assurance Company for the Leeds District.

Hutchinson, John G., L.R.C.S. Edin., L.R.C.P. Edin.—Medical Officer to the Kineton District, Stratford-on-Avon Union.

Lane, W. A., M.S., Lond., F.R.C.S.—Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street.

Maguire, Robert, M.D. Lond., M.R.C.P.—Pathologist to the Manchester Royal Infirmary, Demonstrator and Assistant Lecturer on Pathology in the Owens' College, Victoria University.

Salter, S. T., M.A., M.B.—House Surgeon to the Seamen's Hospital, Greenwich.

Simmons, H., L.S.A.—Assistant House Surgeon to the London Temperance Hospital, Hampstead Road.

Smith, James W., M.D., C.M., Edin.—Medical Officer to the Ryton District, Gateshead Union.

DEATHS.

Bushnan, J. S., M.D., &c., on February 17th, aged 76.

Carmichael, W., M.D., late Staff Surgeon R.N., at Mentone, on February 7th, aged 47.

Goldsbro', Charles Field, M.D., J.P., at Parnell, Auckland, New Zealand, on December 20th, 1883.

Hobbs, William, Surgeon Royal Navy (retired), at 6, Windsor-terrace, Douglas, on February 4th, aged 78.

Leslie, Armand, M.R.C.S., near Tokar, on February 4th.

VACANCIES.

Bedford General Infirmary and Fever Hospital. — Resident Surgeon. (*For particulars see Advertisement.*)

Bromsgrove Union, Romsley District.—Medical Officer. Area 4,366 acres. Population 686. Salary £12 per annum.

Chorlton Union.—Assistant Resident Medical Officer. Salary £120 per annum.

Queen Charlotte's Lying-in Hospital, St. Marylebone Road, W. —Resident Medical Officer. Candidates must be qualified, and have passed examination in Midwifery. The Appointment is for four months. Applications, with copies of testimonials, to be sent to the Secretary up to February 23.

Rochester and District Friendly Societies Medical Association.—Resident Medical Officer. Salary £200 per annum, &c. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold a Medical or Surgical Diploma, and be registered. Private practice prohibited. Applications, stating age, whether married or single, with testimonials, to be sent to H. T. Kybett, 55, High-street, Chatham, Kent, of whom further particulars may be obtained, on or before February 23.

Royal South London Dispensary, St. George's Cross, Lambeth Road, S.E.—Honorary District Surgeon. Applications to be sent to Mr. Hentsch, at the Dispensary, on or before February 29.

The General Hospital, Birmingham.—Resident Medical Officer. (*For particulars see Advertisement.*)

The Hospital for Women, Soho Square, W.—Assistant Physician. —Also, Administrator of Anæsthetics. (*For particulars see Advertisement.*)

Wonford House Hospital for the Insane, near Exeter.—Resident Medical Superintendent. Salary £500 a year, with furnished residence, board, washing, and attendance. Candidates must be registered both in Medicine and Surgery, and not less than 30 years of age. Applications, stating age, experience in the treatment of the insane, &c., whether married or single, with testimonials of recent date, to be addressed to the President, Committee of Management, Wonford House, Exeter, endorsed M.S., on or before March 11.

NOTES, QUERIES, AND REPLIES.

Royal College of Surgeons.—The following were the questions submitted to the nine candidates for the diploma in Dental Surgery, at a meeting of the Board on the 18th instant, when they were required to answer at least one of the two questions, both on Anatomy and Physiology, and on Surgery and Pathology, between two and four o'clock, p.m., viz. :—Anatomy and Physiology : 1. Give the precise attachments of all the Muscles connected with the Lower Jaw, exclusive of those of expression. 2. Mention the Nerves distributed to the Mouth, and state what you know respecting the functions attributed to each.—Surgery and Pathology : 1. Enumerate the several causes which prevent or hinder Movement of the Lower Jaw, and indicate the treatment you consider appropriate to each case. 2. Describe the Pathological and Clinical differences between an Epithelioma and an Epulis.

The following were the questions on Dental Anatomy and Physiology, and Dental Surgery and Pathology, in which the candidates were required to answer at least two of the three questions of each subject, viz. :—Dental Anatomy and Physiology : 1. Give the general Dental Formula of Marsupialia. Point out the leading resemblances and differences between their teeth and those of Placental Mammals, illustrating your answer by reference to an animal belonging to each class. 2. Describe the structure and development of Cementum, comparing it with Bone. What is its general distribution upon the teeth of Mammalia? 3. Name the periods of (i.) commencement of Calcification of the several Permanent Teeth, (ii.) of Eruption of the same, (iii.) (approximately) of completion of their Roots.—Dental Surgery and Pathology : 1. If during extraction a Tooth slip into the Throat, what complications may arise? what symptoms will denote its position? and what will be the appropriate treatment? 2. Mention the symptoms on which you would rely, and the tests you would employ in diagnosing Odontalgia from Neuralgia. 3. Describe the "transparent zone" of Dental Caries. What evidence exists as to its nature?

A young Licentiate.—The following gentlemen are members of the Dental Board of the College of Surgeons, according to the calendar of that institution :—Messrs. T. Holmes (Chairman), J. C. Forster, John Wood, F.R.S., Alfred Coleman, Augustus Winterbottom, and C. S. Tomes, F.R.S. All are Fellows of the College by examination, except the last-named gentleman, who is a Member. The Board was established in 1860, and was composed of Sir Wm. Lawrence, Bart., F.R.S. (as Chairman), and Messrs. J. H. Green, F.R.S., J. M. Arnott, F.R.S., Thomas Bell, F.R.S., John Tomes, F.R.S., and Arnold Rogers, F.R.C.S. ; with the exception of Messrs. Arnott and J. Tomes, all have gone over to the majority.

Senex.—We are grateful for your criticisms. We are well aware that the arrangement you complain of has its disadvantages, but we were not the first to introduce it into journalism, and we did not adopt it without due consideration.

Dr. R. L.—The article is not suitable for our pages.

X.P.—You will be able to get it through Williams and Norgate.

COMMUNICATIONS RECEIVED—

Dr. S. Wilks, F.R.S., London; Dr. C. Browne, London; Mr. W. Tyrrell, Malvern; Dr. T. R. Lewis, Southampton; Mr. E. Clark, London; The Director-General, Navy Medical Department, London; The Director-General, Army Medical Department, London; The Secretary, International Health Exhibition, London; The Secretary, Apothecaries' Society, London; Mr. T. M. Stone, Wimbledon; The Secretary, Obstetrical Society of London; The Secretary, Medical Society of London; The Hon. Secretary, Medical Society, Charing Cross Hospital; Dr. J. W. Moore, Dublin; Inspector-General Lawson, London; Dr. Shelly, Hertford; Sir W. Guyer Hunter; Dr. Tibard, London; Dr. Hughes Bennett, London; Dr. Isambard Owen, London; Mr. Chatto, London; Dr. Willoughby, London; Dr. Clifford Beale, London; Dr. Cholmeley, London; Mr. Barton, London; The Editor, Rivista, Clinica e Terapeutica, Naples; Dr. Richard Neale, London; Mr. J. W. Barnes, London; The Registrar-General for Scotland, Edinburgh; Dr. M. Granville, London; The Sanitary Commissioner for the Punjaub, Lahore; The Registrar-General for Queensland, Brisbane; The Director, Anthropological Institute of Great Britain and Ireland, London; The Secretary, The Parkes Museum of Hygiene, London; Mr. J. Bellamy, Local Government Board, London; The Military Secretary, India Office, London; The Secretary, Royal Medical and Chirurgical Society, London; The Director, Dr. Barnardo's Home for Destitute Children, London.

BOOKS RECEIVED—

Suggestions for a Plan of taking Notes of Medical Cases, by Geo. F. Duffey, M.D.—Opinions of the Press on the London Municipal Government.—Medical Act Amendment Bill.—An Appeal to the Surgeons of the London Medical Service.—Report on the London Water Supply, for the month ending January 31st, 1884.—Pulse, Wave Velocity, by A. T. Keyt, M.D.—Importation of Foreign Animals, and the Foot-and-Mouth Disease. — On Cardiac Aneurysms, by J. Wickham Legg.—A Guide to the Study of Ear Disease, by P. M'Bride, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—Science Mediche—Weekblad—Canada Lancet—Giornale Internazionale—Dominion Sanitary Journal—Rivista, Clinica e Terapeutica — The Journal of Anatomy and Physiology—The Journal of the British Dental Association—North Carolina Medical Journal—The Dublin Journal of Medical Science — The Planet — Société Médicale — Revue d'Hygiene.

APPOINTMENTS FOR THE WEEK.

February 23. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

25. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London.—Drs. Cayley, Samuel West, Gilbert Smith, A. T. Myers, and Mahomed, will read Papers embodying "The Results obtained in the London Hospitals by the Cold Bath Treatment of Enteric Fever."—Discussion.

Royal College of Surgeons of England, 4 p.m.—Prof. W. H Flower, LL.D., F.R.S., F.R.C.S., will deliver his First Lecture "On the Principal Types of the Human Species."

26. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Royal Institution, 4 p.m.—Prof. A. Geikie, "Scenery of the British Isles."

Anthropological Institute of Great Britain and Ireland, 8 p.m.—The Institute will meet at 4, St. Martin's Place, W.C., when the following Papers will be read:—By the Rev. Lorimer Fison, M.A., "On the Nanga, or Sacred Stone Enclosure of Wainimala, Fiji;" by the Rev. R. H. Codrington, M.A., "On the Melanesian Languages."

Royal Medical and Chirurgical Society, 8.30 p.m.—Mr. Thomas F. Chavasse, "On Neurotomy of the Second Division of the Fifth Nerve;" Mr. Christopher Heath, "A Case of Amputation of the Arm and Scapula for Ossifying Sarcoma—Recovery." Dr. Heneage Gibbes, will show Microscopic Specimens of Putrefactive Organisms at 8 p.m.

27. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Hunterian Society, 8 p.m.—Mr. R. Clement Lucas, "On Injuries to the Kidney;" Mr. Poland, "A case of Acute Suppuration of the Hip and Elbow Joints."

Royal College of Surgeons of England, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Second Lecture "On the Principal Types of the Human Species."

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Parkes Museum of Hygiene, 8 p.m.—Dr. H. C. Bartlett, F.C.S., and Dr. Richard Neale will deliver Addresses "On the Purification of the Air in Living Rooms, Sick Wards, &c." Dr. B. W. Richardson, F.R.S., will take the Chair.

Royal Institution, 3 p.m. — Prof. Tyndall, "The Older Electricity."

29. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of Charing Cross Hospital, 8 p.m.—Meeting. H. Montague Murray, Esq., M.B., will read a Paper "On the Value of Phrenological Theories." Dr. J. Mitchell Bruce in the Chair.

Royal College of Surgeons of England, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Third Lecture "On the Principal Types of the Human Species."

Royal Institution, 9 p.m.—Prof. Hughes, "Theory of Magnetism."

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CLINICAL LECTURES

By J. MATTHEWS DUNCAN, M.D., F.R.S.,

Physician-accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital.

Lecture VII.—ON CHRONIC INVERSION OF THE UTERUS.

Inversion of the uterus is possible at any time, but is justly regarded as generally an accident of delivery at or near the full term. It is one of the most interesting and grave in the whole of midwifery practice, its importance being not of the greatest, only on account of its rarity. Its production and treatment, and many other matters concerning it, do not come into lectures on the diseases of women. But whether produced in the last stage of delivery, or in the unimpregnated female, it becomes a chronic disease if the woman survives and the organ is not replaced; and then it is truly one of the diseases of women, and we occasionally have a case in "Martha."

One point in its production should be considered here, namely, its occurrence without marked symptoms, or rather, without any special pain or constitutional disturbance. This is not usual; for generally it occurs in the third stage of labour or immediately after it, and then there is hæmorrhage and prostration, or collapse, great beyond all proportion to the amount of blood lost. The first case of recent inversion which I saw was one to which I was called some distance in the country; and, although I went at once, the patient was dead before my arrival, and had not had much loss of blood. The next case I saw was a case of chronic inversion, which we succeeded in replacing with great difficulty; it illustrates the point to which I now direct your attention. The patient was a doctor's wife, and she had the usual care and attention at her confinement, and all was supposed to go well. That inversion had taken place was not discovered till her child was a year old, and then accidentally, while enquiries were being made into her case, which was one of weakness, sacrache, and whites. Another case has come under my care, where the woman was supposed by her husband and friends to do very well in her confinement, while the doctor knew that the womb had become inverted. She made a good recovery, suckled her child, and long delayed applying to me to have her womb replaced. It was replaced, and she subsequently bore children. You are, therefore, not to suppose that this grand disease, associated in your minds with great sufferings, and consequences, has always grand symptoms at its beginning leading you to suspect its presence; it may occur without any, or with few and trifling symptoms, and little disturbance of health, at first or afterwards.

The symptoms of chronic inversion are sacrache,

leucorrhœal, or other discharges, and loss of blood, and these may vary in persistence and in amount. In a case not long ago in "Martha," the woman was very anæmic from great hæmorrhages, and in her the chronic inversion was peculiar, having been caused by a fibroid attached to the fundus, which had to be removed before the uterus was replaced. It is well worth your while to ponder the symptoms of chronic inversion and the consequences of it, when you study the subject of the so-called minor displacements. Here you have a most exaggerated form of displacement; but you have with it no such tremendous consequences as are attributed to the comparatively paltry versions and flexions. At the time of its production it is often truly an awful disease; but when it becomes chronic it loses this character, while it retains its own great though limited importance.

Another matter of great interest in the pathology of the uterus is the completeness of the involution, notwithstanding the inversion. In all the cases of chronic inversion which I have seen, the uterus was reduced to its natural size, and I have noticed it even remarkably small — not undersized, but small. It is a mobile, smooth, velvety-surfaced, rounded, pear-shaped mass, lying in the upper vagina, the small end of the pear being encircled by the cervix uteri. It is not tender, and, though sensitive, can be freely touched without the patient greatly complaining. The openings of the tubes have been seen on it, and they have been catheterised; but I have not been able to make them out in the cases that I have observed. All I have seen is a uniform bright and smooth surface, not necessarily bleeding when touched, but easily made to yield bloody oozing.

I have said that the inverted uterus hangs through the cervix. If the uterus is low down, or is pulled upon, then the cervix becomes inverted completely, even to the external os, and this leads me to an important matter which has practical bearings. The disease is essentially inversion, not of the uterus but of the body of the uterus. The body is quite a different organ from the cervix, and it is the inversion of the body that gives the disease all its important characters. There may be no inversion of the cervix; and if there is even complete inversion, it is of no moment; it can very easily be completely undone. It is, indeed, to be regretted that the cervix is made a part of the uterus, for this leads to many erroneous notions; it would be advantageous to have for it a different name, for it is physiologically and pathologically nearly as different from the uterus proper or uterine body above it, as it is from the vagina below it.

During the production of inversion, the uterus may be only partially displaced; and a partial inversion of the placental insertion, with a cup-like depression on the peritonæal surface may be felt in the third stage of labour; or a cup-like peritonæal depression may be seen on a womb which has expressed a polypus from its cavity into the cavity of the cervix or into the vagina. These are truly commencing inversions, not completed or real inversions. A chronic, partial, or not real inversion may be seen in some cases of continued hæmorrhage after delivery; the placental area being relaxed and projecting into the uterine cavity. But, disregarding the unimportant cervix, the displacement in a chronic uncomplicated inversion is always complete. I, at least, have not seen any partial inversion, and it is difficult to imagine a pathology for such a state.

A recently inverted uterus may be spontaneously replaced, but such a fortunate issue very rarely comes to a chronic case. The organ may be ulcerated, may be inflamed, may yield much discharge, or may bleed freely. It has been known to die and slough off, and it is natural to attribute this to constriction by the cervix, or by the lowest layer of fibres of the body, a view which seems to the practitioner to find support in the great difficulty he has in getting this lowest contracted ring dilated. But the pathology of this sloughing is surely not so simple a matter, for there is no tight constriction of any part; such constriction is to be imagined, but it has never been seen or described. The condition may find an analogy in the occasional sloughing of a polypus, whose stalk passes through the cervix; yet is not tightly constricted by it, not more constricted than it was when it was all alive, not so constricted as to arrest circulation and strangle. The difficulty alluded to, as experienced by the practitioner, is not from constriction, but from rigidity or undilatability.

These two events, removal by sloughing and spontaneous replacement, suggest the treatment in cases of chronic inversion. Formerly, the treatment by removal was regarded as the mode of cure—if that can be called cure which involves considerable danger—and, if successful, leaves the woman sterile. It is now resorted to only when artificial replacement is not successful. In some cases nothing is done, and the ulterior history of such I do not know by actual experience, but I do not doubt that they may live in a quite tolerable way, and may after the menopause become as good as cured, the displacement giving little or no trouble.

Many methods of removal have been practised. In "Martha" I have not had an opportunity of showing you the operation. There are two dangers—bleeding and peritonitis. You may pull down the uterus, holding it by volsella, attached above your proposed incision. Then you amputate by scissors, or a sweep of a bistoury. Then you arrest bleeding, if there is any. Then you use strong sutures through the peritonæum to close the opening made by the amputation. During all these proceedings you use measures to secure aseptic cleanliness.

I have said that formerly cases of chronic inversion were either let alone, or the uterus was amputated; and, if you look up old teaching regarding this disease, you will find careful statements of the number of hours, or perhaps days, between the inversion and the replacement, so great was the fear of the condition becoming chronic, and therefore regarded as incurable by replacement. Now, that is, within the last two or three decades, all this is completely changed; we regard no case, however chronic, as incurable by replacement, till experiment has shown it to be so. Replacement should be done at once—as quickly as may be—after the inversion; of such interferences we do not here speak, because the state is then very different from that of chronic inversion. It is after a case has become chronic that we now regard replacement as feasible, as the regular practice; and I am not aware that, when a case has become chronic, there is any more difficulty in replacement after the lapse of years than after the lapse of weeks or months. It is natural to suppose that peritonæal adhesions or cohesions may render replacement impossible; but I am not of this opinion. No doubt general chronic matting, or growing together, of parts may produce insuperable difficulties; but cohesions will in time disappear for the most part, and those persistent may be disjoined by the process of replacement: of this, however, I have no proof to give you.

There is nothing new in the mere replacement: that is a treatment occurring as naturally to the surgeon as reduction in a case of dislocation of a bone. The novelty is in replacement after the disease has lasted long; in the demonstration that a uterus inverted for years is as easily reduced, or nearly so, as a uterus inverted for only a few weeks; and this is the very opposite of what was taught not long ago, the opposite of what, for example, I was taught as a student by my great teacher. Many women reap the advantage

derivable from this novelty—this great change in doctrine and practice.

Some changes, or novelties, in practice are little in themselves, but great from the wideness or extent of their application and utility. Others are great in themselves as artificial anæsthesia. Others are great from the importance of the principle involved in the change. Some, like vaccination, may have a combination of greatnesses. The change in regard to inversion, is great in itself and in the principle involved; but, unlike vaccination, the change has very limited scope in practice. Inversion is rare: were it common, the change would sound loud in the ears of mankind.

Now what is this great change or novelty in principle? It is the recognition that the result is to be attained not by a strong or violent effort, not by great force, but by a small force long applied. Not great force and short time, but little force and long time. Not the driving a nail, or lifting a weight, but the bending a bow or pulling a fish by hook out of a stream. Not the rapid opening of the womb in forced delivery, but the gradual opening in natural labour. Formerly, a great effort was made by taxis, as in the reduction of a hernia, and if it failed the case was hopeless; now the taxis is tried, and if it fails the pressure is kept up till yielding comes and the difficulty is overcome.

The failure to recognise this principle of treatment was not the only error of former practitioners, they had erroneous notions of the source of the difficulty, and used erroneous practices founded on those notions. For instance, some thought the cervix was the cause of difficulty, and that, by dividing it, the reduction would be easy. But the cervix offers only trivial resistance; it dilates easily and readily, offering no strong constriction, and it is replaced without trouble. The ordinary error is to suppose that the difficulty is caused by constriction, whether in the cervix or in the part of the uterine body, near it or anywhere else. I show you here the body of the uterus amputated for chronic inversion; if you take it and try to undo the inversion you will soon be satisfied that the cervix offers no important resistance, for there is no cervix attached to it. You will also quickly satisfy yourself that constriction is not the cause of the difficulty, for there is no constriction. No cervix and no constriction, and the uterus in your hand, not deeply concealed in the woman's body, and yet reduction or undoing the inversion as difficult as ever, almost impossible. You may have a good notion of the difficulty by trying to invert an unimpregnated uterus, or an india-rubber ball resembling it. In the natural uterus there is as much constriction as in the inverted: that is, there is none, all parts being equally tight. The operation would indeed be impracticable were the tissues composing the uterine body not endowed with other qualities besides elasticity and distensibility, namely, with the quality of muscular relaxation. I believe the capability of replacement is mainly due to elasticity and distensibility, and partly to muscular relaxation, not relaxation of any constricting band, but of the whole uterine tissues. All operations founded on the idea of a special constriction are failures, being based on erroneous theory.

Now for the operation. You may first make a trial of immediate replacement. The woman, anæsthetised, is placed in the position for bimanual examination; the right hand is passed into the vagina; pressure is by it exerted on the fundus uteri, while counter pressure is maintained by the left hand on the peritonæal uterine cup through the hypogastric flap. Without the counter pressure the vagina would be undoubtedly stretched and, it may be, injured, and the right hand would pass far into the abdomen to follow the retreating or ascending uterus. The pressure on the fundus by the right hand is variously modified, this way or that, directly, obliquely, the rule generally held in mind being to replace first the highest part or that nearest the cervix, and so on. The pressure soon pushes the body within the cervix; and you may, therefore, suppose you are succeeding, when, in reality, you have not touched the real difficulty. Efforts may be continued long; even for hours. I have persevered till the woman was exhausted and I myself fatigued, and have failed, and I have also succeeded. This process may be called acute replacement, and should always be used in acute inversion, that is, when the inversion comes after delivery. At this time it should be strenuously urged till you succeed; sometimes it is very easy.

In chronic inversion the attempts at acute replacement often, indeed generally, fail, and then you resort to the new operation of chronic replacement, that is, you keep up the pressure on the fundus till the organ is worn out and yields. This may be effected in a few hours, or it may take days. Much has yet to be done to perfect this process, and it may, by the ingenuity of gynæcologists, be made easier and gentler. At first the pressure was kept up by relays of assistants, now it is done by machinery.

I show you here the instruments we have used in "Martha." Any one is like a stethescope with the ear-piece removed. The cup-like end receives the fundus uteri. At the ear-piece end are attached elastic bands, which are connected with a horizontal bandage around the body above the iliac crests. By the elastic bands the pressure is kept up. We estimated the pressure used in Mrs. C.'s case as above one and below two pounds.

The instrument causes much pain, and narcotics are required to allay it. Suddenly the woman feels the pain diminished; she may be squeamish or sick to vomiting; the elastic bands are loose; the uterus is replaced. The cup of the instrument is now lodged in the cavity of the uterine body, and so enclosed as to be with difficulty extracted. This extraction is done by the same process inverted as pushed it in, only it is done at a sitting.

After replacement of the uterus a woman readily conceives, and successfully passes through pregnancy.

Cases of partial chronic inversion by a fibroid are not very rare. I show you two from the museum. In them a fibrous polypus has, in its descent, or as it has been forced into the cervix, pulled down the uterine wall with it, making a deep depression on the peritonæal surface. In both these cases it is the fundus that is partially inverted. In one of these two, one side only of the fundus is pulled in, the uterine end of one tube dipping into the cavity while the other is in its natural site. Sometimes it has happened to be a side of the uterus that is inverted. In all such cases you are liable to be misled, not suspecting the inversion, because the push indicates the natural length of the uterine cavity, or even an exaggerated length. In all cases of separation of a fibroid from the uterus you should keep in mind the possibility of this partial inversion, lest, in cutting through the supposed attachment, you cut through the inverted portion and make a large opening into the peritonæum, an unfortunate accident which has occurred. Danger may generally be avoided by enucleating the fibroid instead of separating it by knife or ecraseur.

Naval Medical Service.—The following appointments were made on Saturday at the Admiralty:—W. H. Putsey, staff surgeon, to the Boscawen, vice Clarke; the appointment of Staff-Surgeon Trevan having been cancelled; C. E. Geoghegan, surgeon, to the Flirt; D. T. Hoskyn, surgeon, to the Shannon, vice C. E. Geoghegan; J. A. M'Adam, surgeon, to the Duncan, vice Armstrong; John Acheson, M.D., surgeon, to the Duke of Wellington.

CASES OF SPINAL DISEASE, ILLUSTRATING THE CLINICAL HISTORY OF SPINAL SCLEROSIS.

By JAS. RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

(*Continued from page* 242.)

I NOW report two cases in which the spasmodic condition of the lower extremities was unquestionably of secondary formation; dependent upon prior disease, involving the entire thickness of the white matter of the cord in a limited extent. It is in the white matter of the cord that the originating lesion resides in such cases (Charcot); and the nature of the lesion, in the opinion of M. Charcot, is of a destructive character, so far as the white fibres are concerned. The motor cell, it is stated by the author I have just quoted, by its "autonomy" generally resists the invasion of the morbid process; but he quotes some interesting cases, which prove this rule to be by no means universal—cases, "perhaps, not so uncommon as is usually believed," in which the extension of the diseased process to the grey matter was proved by that change in the nutrition of the affected muscles, and in their electrical relations, which is known to attend injury to the motor cells of that portion of the cord. Dr. Gowers would assent to M. Charcot's remark, that such exceptional cases are less infrequent than is supposed, for he remarks (*op. cit.* p. 50), "It is possible that the position [of the general commencement of the morbid process on the white column] will need reconsideration, and that the degeneration in the lateral columns is sometimes, at least, secondary to, or simultaneous with, the disease in the cornua."

I may refer to an interesting observation by M. Charcot respecting the anatomical arrangement of the diseased part of the cord, when both the lateral column and the cornua are involved; an observation applicable to either of the two opinions respecting the origin of the lesion just stated. The degenerated part of the cord, he states, is usually separated from the injured grey matter by a white tract; and he infers from this arrangement that no direct extension through the agency of the connective tissue is effected, but rather through the course of the nerve fibres.

I may quote an interesting case of my own, formerly reported fully, in which, unquestionably, the extension to the grey matter took place from the lateral columns, and in which the usual consequence of the disease, reaching the anterior cornea, was very clearly exhibited in the condition of the muscles. The lower limbs had been in a state of permanent spasmodic contraction for a period of five years, dating from the commencement of the disease, and their muscular nutrition was preserved; the extension to the grey matter was attended by sudden development of very high temperature, and by constitutional irritation threatening the patient's life. The consequence was at once displayed by the muscles; their tonic contraction was at once brought to an end in one lower extremity, the reflexes were extinguished, and the muscles rigidly contracted up to that moment, hung flaccid like loose bags, and began at once to waste. At the same time there was anæsthesia over a limited area. The other lower extremity was being invaded by a similar process, of slower character, when the patient left the hospital. As the arms were at first somewhat affected also, the attack might be likened to one of acute infantile paralysis in the adult, superinduced on the other disease.

The two cases I have selected illustrate the sclerotic change, which I infer to have taken place in two different stages. In the former of the two patients, the change may be traced from its commencement; it pursues a very characteristic course; in the gradual exaltation of the irritability of the deep reflexes, concurrently with the establishing of the paralytic condition and of loss of power in the bladder, the approach towards permanent tonic contraction of the limbs may be distinctly traced. In the second patient, the sclerotic process may be supposed to have advanced further, and the condition of the lower limbs to be established, in permanent tonic contraction. In this latter case it will be remarked, that were the early period of the history, that namely of prior paralysis and anæsthesia, neglected, the phenomena would be those presented by the case of supposed primary sclerosis, just reported. In one particular the second of these two cases will be found to differ from the first, in the mode in which the rigidity came on. Whilst in the first patient exaltation of the reflexes was apparent from the first, and steadily but slowly increased in the second, according to the patient's report, paralysis had existed through two years, and in the second year was complete, before any sign of stiffness manifested itself; at the end of that time rigidity began, and was complete in six months. This observation illustrates the difference which exists among the phenomena in different cases of the class, a variation which of course must depend on corresponding varieties, in the position and character of the primary lesion. A striking peculiarity is presented by the second case in the recovery of power over the muscles of one thigh, and over the muscles moving both thighs at the hips, and yet the knee-jerk was absent in the recovered limb. The case, also, illustrates the changes which take place in the tissues around the joints of the affected limbs, when the muscular contraction has become permanent, a change by which the articular appendages become altered, in adaptation to the changed condition in which they are placed.

The progress and symptoms of the initiatory period, that of the pre-existing disease, must of course differ with the case. In the first patient, the nature of the lesion and its progress were probably clear: myelitis of limited extent, it would appear, originating in the syphilitic poison. In the second patient, the symptoms did not explain so clearly the nature of the disease, but the presence of disease, as a condition introducing the condition of sclerosis, was as distinct as in the other patient.

Limited acute myelitis, probably of syphilitic origin—Paraplegia and loss of power in the bladder—Gradual increase in irritability of the deep reflexes, tending towards permanent tonic contraction.

A. L., aged 36, was admitted February 3rd, 1880. There was nothing special to note in his family history, nor in his personal, excepting the following. He had been a man of loose habits; he had soft chancre eleven years ago, gonorrhœa seven years, and again two years ago. On a prescription from the Eye Hospital, May, 1882, was inscribed "Specific Iritis." Eighteen months ago he had a sore on his finger, and a rash appeared upon his body; at the Lock Hospital he was told that he had secondary syphilis.

Three weeks before admission, after some exposure to cold, he complained of occasional pain at the bottom of his back, and had several rigors. About January 19th, he experienced difficulty in passing urine; and on the 28th he passed urine, by voluntary effort, for the last time. On the same day (28th) his feet and ankles became weak; the lower limbs grew more and more useless during the two following days, and tactile sensibility was dull. He had acute pain in the hips and knees and upper part of the thighs when attempting to move the lower limbs, with tingling in his feet and

twitches in his legs; he describes attacks of "convulsions" in his lower limbs, after which he was unable to move his legs or his toes. There has also been some aching in the upper lumbar region. His bowels had been confined, but on two occasions, after an aperient, they had acted sharply without his consciousness.

The patient's general health does not seem to have suffered, though he has slept badly. For two days he had some aching in the fingers of either hand.

When admitted, he presented the aspect of a fairly healthy man; he lay generally on his right side with his knees flexed; he was quite unable to stand, though he could move his legs in bed, and he could not sit upright without some help. The grasp of the hands was firm, that of the left rather stronger than of the right. The use of a catheter was necessary. Tactile sensibility in the lower extremities was probably normal, excepting that ice and hot water were only recognised as moderately cold and warm. Faradic sensibility was more acute in the left than in the right leg, but in neither was there marked departure from the normal standard.

The state of the reflexes was of greater interest in connection with the patient's subsequent history. The right knee-jerk was decidedly in excess, and also the direct contraction of the right vastus; on the left side the jerk was less in excess. Marked clonos was present on the right side, to a lower degree on the left; there was slight movement in the right leg from the front tap. The superficial reflexes did not transgress the normal type; but no plantar reflex could be obtained in the right foot.

By ophthalmoscopic examination, Mr. Priestley Smith discovered traces of old iritis; the lower half of the right fundus presented a white patch, occasioned by detachment of the retina, probably of syphilitic origin. The left eye was healthy. During his residence the patient suffered from two or three attacks of ophthalmia, in which iritis was with difficulty repressed.

In the future history of the case, the symptom which attracted principal attention was the condition of the reflexes. In the middle period of the case in the hospital, their condition was affected by an intercurrent attack of inflammation, indicated by high temperature; but their steady augmentation in irritability, and the increase of tremor, were clearly marked, and the tendency to the development of tonic rigidity became very apparent.

During the first month of his residence the notes are defective; but at the end of the month it is noted that a considerable amount of tremor had made its appearance in the lower limbs, when an attempt was made to raise them, being most marked in the left leg; with this coincided very active clonos, and much muscular irritability. The superficial reflexes, on the other hand, were low. A month later (March 30th), coincidently with a sharp attack of fever with high temperature, the tremors had much increased and affected the limbs when they were at rest; the muscles of the calf did not bear the slightest traction from the foot, nor those of the thigh from the patella, without the production of active clonos. A day or two later the patient is described as crying out with flashes of pain, shooting from the feet up the leg. There was also pain in the lower part of the lumbar region, especially on moving. These pains were of temporary character. Tactile sensibility was somewhat dulled.

On April 14th, with return of rigors and high temperature, considerable rigidity was noted in each lower extremity, yet was easily overcome; tactile sensibility was more impaired; the superficial reflexes, except the plantar, continued low. The rigidity gradually lessened in the right leg, sensibility was nearly recovered in the left extremity, but remained dull in the right. When the last note was made on June 9th, before the patient left the hospital at the end of July—the temperature having settled down to normal during the preceding month—both lower limbs were rigid, and the feet inverted; clonos was produced with still greater facility, even by flipping the skin; motor power remained, just sufficiently to render the patient able to flex and extend the limbs in bed. Five months later the patient called at the hospital; he could just succeed in raising his legs from the bed. Muscular nutrition of lower extremities was perfect; but the least attempt at passive motion, or handling the limbs, caused complete rigidity in extension, easily overcome. There was active knee-jerk. Tactile sensibility was impaired in one limb, normal in the opposite. It was observed that reflex action was preternaturally active in both arms, on tapping the flexor tendons or the radius. The urine was passed involuntarily. The catheter had been required during the entire period of hospital residence, and much trouble had been produced by cystitis, which rendered constant washing of the bladder necessary.

Treatment, which was vigorously directed towards the supposed syphilitic element in the case, proved entirely fruitless, and therefore need not be described. At one time the patient's health failed considerably, but on the occasion of his last visit he was in good bodily condition.

Gradual access of paralysis through one year; then sudden increase with anæsthesia—Commencement of rigidity at the end of the second year.

W. S., aged 33, a brewer, was admitted into the Birmingham General Hospital on September 7th, 1883. His disease, which was of three years' duration, commenced with pain at the back of the head, and in the muscles at the upper part of the back; his sight, too, was confused. The pain in the head was often severe. During the same time his walking became impaired. One day, especially in damp weather, he could hardly drag one leg before the other; on another day he walked quite well; often he had to keep his bed for two days, on account of languor and want of power in his lower extremities. About the end of the first year of his illness he had been ailing on one particular day, when he was seized in the evening with pain and a sense of weight at the bottom of the abdomen, which drew him down; the pain lasted only for that evening. On the following morning he left his bed, and went into another room, but in the evening he could not return without assistance, and he has never walked since. His legs were not stiff; they were perfectly loose, and "could be put anywhere," but "he could do nothing with them." At the same time he entirely lost sensation in his lower extremities and in the lower part of the abdomen; a pin could be thrust into his legs without his knowing it, and his leg has been hanging out of bed "unawares to himself!" In a month sensation began to return, and gradually became normal. He has never had much pain. There was only temporary and slight trouble with his bladder.

The stiffness has been coming on for twelve months, and has been complete for six months. He is positive that during the whole second year of his illness the limbs, though paralysed, were perfectly lax. The right knee has escaped the stiffness altogether, though both lower extremities had been affected with paralysis, but the right thigh had partially regained power. He had only slight tremor. He lost flesh during the first year of his illness, and when the complete paralysis came on, he only weighed ten stones; he has recovered two stones during the last nine months.

He had a "small pock" on the penis nine years ago, two days after blotches came over him, but they lasted only two or three days. He has had no other venereal

affection. He indulged freely in intercourse at an early age, and at present is subject to nocturnal emissions. He does not have erections. He admits hard drinking of ale and spirits for five years, up to two years ago. His liver is healthy, apparently; his urine is free from albumen.

The patient looks in excellent health; muscular nutrition is perfect. The right knee-joint is perfectly mobile, and can be freely moved by the patient himself, as also can both limbs at the hip-joint. The left lower extremity, and the right at the ankle joint, are in tonic rigidity, the feet being inverted; the tarso-metatarsal joint is strongly bent, hollowing the sole of the foot, and the toes are rigidly flexed.

As regards the reflexes, the only point which requires notice is the entire absence of the knee-jerk on the right side, although the muscles are free from spasmodic contraction and obey the will with a certain power; nor does any spasmodic movement follow the tap on the muscles of that limb. There is no clonos, and no tremor; no cremaster and very slight plantar reflex; the abdominal reflex is active. Tactile sensibility is normal. The only urinary trouble is that the "water comes too quickly." I omitted to examine the eyes with the ophthalmoscope, but Dr. Bond found the discs healthy.

The patient left the hospital unrelieved. The chief treatment consisted of scoring the back with the hot iron, the use of iodide of potassium, afterwards of belladonna and atropine. It is to be noticed, that although the atropine produced its full physiological effects, no relaxations took place in the state of spasm in the lower extremities; and that when under the influence of chloroform, none but questionable diminution of the contraction took place. Whilst in the state of unconsciousness, Dr. Bond found the ankles and the joints of the feet fixed, either by changed condition of the ligaments, or by adhesion, or by both. The left knee was so firmly fixed, that it was impossible to rupture the retaining agent without the employment of an unjustifiable amount of force. The operation of forcible extension, in the case of the ankles, was not followed by any beneficial result, and some swelling, with a good deal of pain, remained for some days.

(*To be continued.*)

NOTE ON THE TREATMENT OF ENTERIC FEVER BY THE EXTERNAL APPLICATION OF COLD.

By DAVID W. FINLAY, B.A., M.D., M.R.C.P.,
Assistant Physician to the Middlesex Hospital.

One of the most important points brought forward in the discussion on this subject, at the meetings of the Medical Society, is the fact that, under the antipyretic treatment, the proportion of deaths from intestinal lesions has increased; and if this could be held to be due to the bath, it would go far to discourage its use. There is no good reason, however, to suppose that the two things stand to each other in the relation of cause and effect; the true explanation is rather to be looked for in the varying character and severity of particular epidemics. Of the cases which I have lately had charge of, three have died—all of perforation; and all have been treated on the plan lately under discussion.

But in order to appreciate the significance of this, it is necessary to know something about the cases themselves. The following brief notes will be helpful in this direction. The first was a female, aged 30, who had been ill a fortnight before admission, and had had a good deal of diarrhœa. On the evening of the day of admission, she had a temperature of 104·6°, at which the bath was employed. This was the only bath she had, cold sponging being afterwards substituted. Her diarrhœa continued during her stay in the hospital, and perforation took place on the twenty-second day of the fever, the last sponging having been on the seventeenth.

The second case was that of a man, 24 years of age, who had just passed through an attack of acute rheumatism and enteric fever combined, and died on the eleventh day of a relapse of his enteric fever. He was bathed when his temperature was 103·8°, on the fourth day of his relapse, the bath being followed by compresses on the chest and abdomen. Next day he had a second bath, when his temperature was 103°, and again compresses. Two days later, he had a third bath and compresses as before. This was the last bath he had, and he died of perforation four days later.

The third case was a female, 21 years of age, who had had abdominal pains and diarrhœa for ten days before admission. She had three baths in all, her average temperature being 103° when bathed. She perforated on the fourth day of her stay in the hospital, having had persistent diarrhœa from the time of her admission.

Now the first and third cases had been long ill with severe attacks before coming under treatment, and the other had been depressed by his primary attack, complicated, as it was, by acute rheumatism; so that looking to the circumstances of each case, I should say, not that perforation took place in consequence of antipyretic treatment, but in spite of it.

And I think we should expect that a high degree of pyrexia, or long continued pyrexia, would *favour* perforation, looking to the effect which it has in causing degeneration of muscular structure.

We know that the heart suffers from this degeneration, hence pulmonary congestion.

We know that the external muscles of the body also suffer, and I have had under my care a case in which, during an effort by a delirious patient to get out of bed, the rectus abdominis on each side was ruptured.

The same degeneration must affect the muscular coat of the intestines, leading to distension of the bowels, and accumulation of fæcal matter, which are just the conditions likely to end in rupture.

From this, it would follow, that the best way to guard against perforation is to keep down the temperature.

Almost all are agreed as to the dangers arising from a high degree or long continuance of pyrexia in enteric fever; and as to the power possessed by the cold bath of reducing this pyrexia; and if the moderating of temperature be good in itself, it may be asked, what have we to set against it on the other side of the account?

On this point we look in vain for anything definite or conclusive. We have facts in abundance on the one side, nothing but theory on the other.

New Test for Pus in the Urine.—A few drops of hydrogen peroxide brought into contact with pus will produce an effervescence similar to that caused by hydrochloric acid on a carbonate. The action continues until all the pus is destroyed, so that it cannot be recognised microscopically. It affords the simplest and most delicate test for pus in the urine, the smallest quantity being easily detected.—*New York Medical Record*, January 19th.

REMARKS ON SIR W. G. HUNTER'S REPORT ON THE CHOLERA IN EGYPT.*

By Surgeon-General J. MURRAY.

Dr. Hunter considers cholera an endemic disease, arising in the locality of Damietta in the same manner as it arises in Bengal, which is called the cradle of the disease. I consider that the characteristic of an endemic disease, such as ague, is, that it is produced in a certain locality; but is not communicable from the sick to the healthy out of that locality—therefore, if cholera may be so communicated, it is not, in my opinion, an endemic disease. The frequency of its appearance in Bengal is an undoubted fact, but it does not appear so constantly as small-pox, which is a typical epidemic disease, transmissible through the clothes of the sick, as well as by inoculation, and certainly more frequently by personal contact than cholera. Frequency of occurrence no more constitutes a claim for this disease to be classed as endemic than the constant appearance of small-pox in Bengal or venereal disease in London would class them as endemic diseases. The practical objection to this misnomer is, that those who use it are supposed to imply that in their opinion it is not communicable.

Cholera has the same symptoms and character, whether arising in the damp climate of Bengal, the hot and dry climate of central India and Scinde, or the cold frozen climate of Russia. It progresses from hot to cold countries, and *vice versâ* from cold to hot ones, across thousands of miles of land and water, and yet some writers call it an endemic disease, or an endemic disease assuming a new form. It is misleading to call the different stages of the same disease by the names of separate diseases. The physician who is unable to diagnose cholera till it has reached the stage of collapse and suppression of urine will lose the best opportunity of saving life, whilst the body is still amenable to the action of remedies. The hospital physician who admits cholera patients promiscuously into a general hospital, subjects the other patients to great danger. Out of the fourteen cases that occurred at Ramleh during this Egyptian epidemic, eleven occurred in patients already in hospital for other diseases. In quoting the immunity of the inmates of hospitals, it is the practice to illustrate the point by tabulating the immunity of hospital attendants, without alluding to hospital patients. The history of the disease at Ramleh, in this Egyptian epidemic, is an illustration of what is not uncommon in India. The propriety of changing the name of the disease in the hospital register, under which the patient has been admitted, is not always attended to, when another disease supervenes which proves fatal. I was under the impression that the question of communicability had been settled, in the opinion of the profession in India, by the history of the Hurdwar epidemic of 1867, when nearly three millions of pilgrims were assembled, and cholera broke out on the 12th of April, and followed their progress homewards for 500 miles; appearing simultaneously with their arrival in the various towns and villages, and spreading over the districts. Under instructions from Government, I called for the opinions of the Medical Officers of H.M.'s and the Indian services, amongst other points, on the communicability of cholera. Replies were furnished by 505, of whom 478 answered in the affirmative—Yes; five answered in the negative—No; and 22 were doubtful. As to the different channels through which the disease was transmitted, viz.:—i. from the person; ii. from place; iii. by atmosphere; iv. by water; v. through evacuations, there was a slight difference of opinion in reference to personal contact, but on the five questions, out of 2,525 opinions, 2,113 were "yes," 90 "no," and 322 doubtful. The Hurdwar epidemic of 1879 was a literal repetition of that of 1867, the only difference being that the number of pilgrims was a little under one million, instead of being nearly three, as on the previous occasion; and that the districts were affected a few days earlier where railways had been introduced, by which the pilgrims were conveyed more rapidly, the reports being the same that the first cases were pilgrims. I was in hopes this corroborative evidence would have convinced the doubting, and more mature judgment corrected the negative views; but in this I am disappointed. Dr. Brydon's opinion that the simultaneous appearance of the cholera, and the arrival of the pilgrims in 1867, was merely a coincidence with the arrival of his ærial epidemic atmosphere, or Dr. Cuningham's suggestion that the pilgrims in 1879 being very tired and weak, were affected by the villages and and not the villages by them, do not rest on any solid foundation. I do not understand this ærial epidemic influence any more than the production of the disease at Damietta by spontaneous generation mentioned by Dr. Hunter. The explanation perhaps would be more comprehensible if he would inform us whether he considers that the cholera germ or lower vitality was at once produced in its full virulent power, or if, like other vitalities, it was gradually developed from some milder or more primitive form as is now generally supposed to be the usual course.

The search for the germ by the microscope is very interesting, though its non-detection would merely be negative evidence. The hope of producing a milder form of the disease by cultivation, which might protect from cholera, loses much of its importance from the fact that vaccination does not afford a *more* effectual protection from small-pox than a previous attack of small-pox itself, and that one attack of cholera affords no appreciable protection from a second or third attack, as was shown by the returns of the Central Prison at Agra during four epidemics in the successive years 1860–61–62–63, when the history of 800 cases was carefully investigated. More extended knowledge of the disease will probably explain many of the cases which are now called of spontaneous origin; particularly a knowledge of the period during which the germ may remain dormant, inside or outside the body, and then be endued with activity by surrounding circumstances, and what constitutes these circumstances? Our experience of the dormant period *in the body* shows that in some instances it does not exceed a few minutes, while in others it extends to hours or days; it rarely exceeds three or four days, but occasionally it continues in the stage of diarrhœa one or two weeks. Personal experience may influence my attaching too much importance to the rapid action of the poison, which I have myself felt and have witnessed in others.

[I may here mention a few instances which strongly impressed me at the time, on which each may form his own opinion. On one occasion, in 1856, when inspecting the hospital of the Central Gaol at Agra, during a very severe epidemic, I saw a row of fourteen dead bodies arranged in the dead house, and then entered the cholera ward. When there I was affected by a sudden shock in the epigastric region, which was immediately followed by a deadening sensation which rapidly extended over the body to the extremities. To avoid alarm or panic amongst the hospital attendants, I asked the native doctor if he had a good supply of quinine in stock and to show it me. As I walked through the hospital the dead feeling extended all over my body. I had forgotten that I had ordered the native doctor to show me the quinine, but he did so and said,

* Delivered at the Epidemiological Society, on January 9th, 1884.

"Look, sahib, there is plenty." I took a large quantity in my hand and put it in my mouth; it had no more taste than chalk. I entered my carriage and told the coachman to drive home, and I continued to chew the quinine. Gradually it began to taste bitter, and a sense of warmth appeared in the stomach, which gradually extended, and I was feeling comfortable when I reached home, and took two cholera pills and lay down. I soon fell asleep, and awoke free from uneasiness and danger. On another occasion, in 1861, on inspecting the European hospitals, I saw the clergyman speaking to a cholera patient in the Artillery Hospital. He suddenly went to the verandah and was violently sick, vomiting a watery fluid. I immediately gave him a couple of cholera pills, and took him home and put him to bed, where he soon fell asleep, and had no further signs of disease. On the same morning, when inspecting the hospital of the European regiment, I saw the officer of the day, who was visiting the hospital, vomiting in the verandah, and he was attended to by the surgeon of the regiment. In this case the disease advanced to the stage of collapse, and proved fatal in a few hours. On the same day, the officer commanding the artillery and two of the carrying party attending the funeral of one of the artillery-men were attacked with cholera during the day, and the company-officer and one of the men died, the former during the day, the latter on the following. On another occasion, in 1856, Dr. Farquhar accompanied me to the hospital of the Central Prison, and half-an-hour after we left, he was attacked with vomiting during our visit to the Thompson Hospital, and he immediately took two cholera pills, and we drove home, when he lay down and soon fell asleep, and awoke well. On another occasion, at Indore, in 1848, after seeing a number of cholera cases from the bazaar, at the door of the jail hospital, I went home, and after breakfast, I was suddenly seized with profuse watery purging. I immediately took two cholera pills and lay down, and soon fell asleep. I had no more looseness, and only light-coloured evacuations for one or two days.]

The period during which the germ may remain dormant, but viable *outside the body*, is various. In water it is very short, the disease coming into action on the following day, where water was the channel of communication, as at Jogh Kelan, in the Punjaub, and at Moradabad, during the epidemic of 1867. The addition of water to the dormant germs in dry soil acts with similar rapidity in rousing it into activity, as seen in the action of the cyclone wave in Bengal, in 1875 and 1879, and this coincidence, if nothing further, is recorded in numerous instances after a fall of rain at the commencement of the rainy season, or after heavy showers on other occasions. This would afford a simple explanation of many of the instances recorded as of spontaneous generation in Bengal and other parts of India, where the germ may have been deposited the previous year, or perhaps at an older date. Several years are indicated in some cases, as when the workmen were attacked immediately on opening the grave of some road-makers, who had died of cholera four years previously.

The outbreak of severe attacks of cholera at large assemblies of people at fairs and marriages, is of frequent occurrence in India. The first on record was at Hurdwar, in 1785, where it is stated that 20,000 died in one day. There was a slight attack at the Koom-ke-Mela, in 1855, and very severe attacks in 1867 and 1879. There were severe attacks at Mahadeo, in 1861 and 1865, and at Allahabad, in 1880. The records of outbreaks at fairs all over India, are innumerable; taking place in some instances in districts where the disease has been some time prevalent in a mild form, and in others where the disease had been in a severe form in the previous year. It is not always practicable to trace the spark that fires the magazine. We may imagine that the unsanitary state of the ground stimulates the germ dormant in the soil. I see no necessity for imagining a spontaneous origin of the disease at these fairs. Of the various agencies that appear to excite the dormant stage of the germ when outside the body, water is one of the most general and powerful. Outbreaks after a fall of rain are frequently recorded, especially at the beginning of the rainy season. The attack at Hurdwar, in 1867, on the 12th April, had been preceded by a heavy fall of rain on the 11th.

The connection of *season* with the course of the disease is so intimate as to preclude the probability of its being merely a coincidence. The disease, during the cold season, is so rarely seen as to be considered dormant all over India, with the exception of Lower Bengal and some parts of the Madras coast, which are subject to cyclone waves. That it is not temperature alone that causes this intermission is evident from the history of the disease in Europe, where it has raged at far lower temperatures than exist in the cold season in India. Neither is it moisture alone which facilitates its action, as the climate is dry in the Upper Provinces and the Punjaub in the month of April when the Hurdwar epidemics of 1867 and 1879 prevailed; neither is it high temperature alone, as this is wanting in Europe, especially in Russia. The unsanitary state which I have supposed capable of developing (not creating) the cholera germ is, unquestionably, a powerful auxiliary in promoting the progress of the disease to the more advanced and dangerous stages, and in diminishing the power of the body in throwing off or mitigating the disease. The efficiency of the precautionary measures to be adopted on the approach of an epidemic in the isolation of the sick and removal from a tainted locality, will depend on their accordance with these views.

CARBOLIC ACID POISONING IN A CHILD—RECOVERY.

By F. HEWITT OLIVER, Maidstone.

David G. W., aged two years, was brought to me at 1.30 a.m. on December 11th, 1883, by his father and mother, the father stating that ten minutes previously he gave the child from a cup, carbolic acid in mistake for cold tea. Immediately the child had swallowed it he cried out and complained of pain about his mouth, throat, and stomach; the father then discovered his mistake, and immediately brought him to me.

1.30 a.m.—(Ten minutes after taking the poison.) The child is quite senseless, with contracted pupils not responding to light, insensible conjunctivæ, muscles over the whole body relaxed; he is discharging a good deal of frothy mucus from the mouth, about the angles of which there is slight corrosion. The whole body is cold, the temperature being 94·8°. I immediately poured some three or four ounces of olive oil down his throat, most of which he swallowed; gave him an emetic of sulphate of zinc, and administered ten minims of ether hypodermically.

1.45 a.m.—The emetic has not acted; brandy ʒij given, diluted with olive oil.

2 a.m.—Pupils and conjunctivæ unaltered, pulse clearly perceptible, surface of body cold and clammy; temperature 95·6°, respirations 35 in the minute, and stertorous.

3 a.m.—For the last hour there has been no change.

3.15 a.m.—Respirations 36 and irregular; for a few moments slow and laboured, then rapid and shallow. Pulse 130 and irregular, brandy ʒij repeated, after which he opened his eyes and cried lustily, then dropped back exhausted and senseless; the feet, hands, and face are colder; friction applied.

3.30 a.m.—A decided improvement; he has opened his eyes and looked round, conjunctivæ are sensitive respirations 36 and laboured, external strabismus of right eye, pulse 92 and fuller. Temperature 96°. The child cries lustily.

4 a.m.—Respirations 37. He vomited matter smelling faintly of the acid.

4.15 a.m.—Respirations 40. Pupils and conjunctivæ again senseless. Pulse 120, feeble and intermittent. The corrosions about mouth and tongue are now well marked. He again vomited, the ejecta smelling strongly of the acid, and containing brown streaks. Brandy ʒij repeated.

4.30 a.m.—Breathing still hurried and laboured, but quieter; he frequently cries out, sits up, and opens his eyes, pupils now respond feebly. Pulse fuller and regular.

I now ordered his removal home, with instructions to his parents to wrap him in warm blankets, with hot water bottles to his hands and feet, and to give him nothing but milk and brandy.

9 a.m.—He has slept a good deal, and is in a warm glow; there are symptoms of laryngitis, the breathing is hurried and sometimes laborious, and the face blanched. He takes brandy and milk well.

December 12th, 9 a.m.—Cough very troublesome; cries out and complains of pain about throat, thorax, and epigastrium; does not take nourishment so well.

2 p.m.—Inflammation is extending to bronchial tubes of both lungs.

December 13th, 11 a.m.—A fair night, taking nourishment well, and breathing a little easier.

After this he went through a smart attack of bronchitis, from which, under appropriate treatment, he gradually recovered, and at the present time (January 10th, 1884) is running about playing with other children, and is, in fact, quite himself again.

The child appears to have swallowed at least half an ounce of McDougall's "Patent Sewage Carbolic Acid," which I understand is a "crude acid containing about 30 per cent. carbolic acid, the remainder being tar oils." I am not aware of any case on record in which so large a dose was taken without a fatal result.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

CASES OF STRANGULATED HERNIA—OPERATION—ATTEMPT AT A RADICAL CURE—WITH REMARKS.

By BERNARD PITTS, M.C., F.R.C.S.,
Assistant Surgeon to the Hospital.

Case I.

Henry S., aged 37, bricklayer, was admitted to St. Thomas's Hospital, February 24th, 1879, with a strangulated right inguinal hernia, of about the size of a duck's egg. The patient stated that he had had a rupture for twenty years, but never worn a truss. For several years he had been unable to reduce the whole of the swelling.

The symptoms of strangulation commenced on the 22nd, and pain, vomiting, and obstruction of the bowels had been continuous since. Failing with taxis to make any alteration in the hernia, I cut down on, and opened the sac. A large mass of matted omentum was found, and behind this was a small knuckle of dark intestine. Having separated some adhesions, the gut was returned, and the omentum removed after tying the pedicle with a silk ligature. The sac was then dissected up, and the greater portion cut away. The cut edges of the remaining portion, or neck, of the sac were then inverted, and the opening closed by means of catgut sutures. The external wound was then brought together with silk sutures, a drain being provided at its lower part.

The operation was performed with antiseptic precautions. The man recovered rapidly, and left the hospital in three weeks' time, wearing a truss.

This patient was examined on February 25th, 1884, five years after the operation. He had been engaged ever since in very heavy manual labour as a bricklayer, but had always worn a truss whilst at work. There was a small bubonocele perceptible when he coughed. The hernia had, however, never once descended into the scrotal region, and has not given him the slightest pain or discomfort. There has been no increase in the size of the swelling for the last three or four years.

Case II.

William M., aged 16, was admitted to Edward Ward on October 13th, 1877, with strangulated right inguinal hernia. He had suffered from hernia since childhood, but had never worn a truss. On the evening of October 12th, the rupture which is constantly in the scrotum, became enlarged and painful. Sickness at once commenced.

On examination the hernia was found to be of large size, of cylindrical shape, tender, and without impulse. I tried taxis under an anæsthetic, but was obliged to open the sac. A coil of much congested intestine was returned, and a large piece of omentum removed. The testicle was at the back of the sac, but of nearly normal size. A drainage tube was introduced, and the wound closed by wire sutures, and dry lint applied as a dressing. Convalescence was retarded by a sharp attack of orchitis; but the boy left the hospital on November 27th quite well, and wearing a truss.

This patient was again admitted into the hospital under my care on the evening of December 27th, 1880, with strangulated inguinal hernia of the same side.

After the last operation the hernia reappeared, fourteen days subsequent to leaving the hospital. He managed, however, to keep it well under control for about a year with his truss, but afterwards the hernia generally came down whenever he took the truss off. A few hours before admission the hernia came down a little larger than usual, whilst walking with his truss on. Pain and sickness directly ensued, and he came to the hospital.

On examination a tense hernia, of cylindrical shape, was seen in the right inguinal region. The testicle could be felt below the swelling. The patient was suffering a good deal of pain, and was frequently sick. Ice was applied for two hours without any relief. So taxis under anæsthetic was attempted. I was compelled, however, to make an incision through the old cicatrix, and found a constricting band in the upper third of the inguinal canal. The sac was opened, and the congested bowel returned, and some adherent omentum removed. The testicle was separated by adhesion from the hernial sac. I now removed the sac, tying the neck of it with stout catgut. The old cicatrix was then excised, and parts brought together with silk sutures, a drainage tube being placed at the lower part of the

wound. The operation was done with antiseptic precautions. The wound healed without any trouble, and he left the hospital on January 24th, wearing a truss.

He has been under observation since, and was last seen February 12th, 1884. The hernia has never reappeared; there is only a very slight impulse on coughing opposite the internal ring. The inguinal canal is closed, and does not permit the introduction of the finger. Since his operation he has been constantly engaged in heavy lifting work, and he continues to wear a light truss.

Case III.

Alfred Cozens, aged fourteen months, was admitted to Victoria Ward, on September 12th, 1881, with right inguinal hernia strangulated. A tense swelling was found in his scrotum, of the size of a hen's egg. The mother had been unable for the last 30 hours to reduce the hernia; before this she had had no difficulty in the reduction. Having failed by hot bath and manipulation under chloroform to return the bowel, I operated, and on opening the sac found the cæcum, which, however, was not adherent. After freeing a constriction at the neck of the sac, the bowel was readily returned into the abdominal cavity. I then dissected away a portion of the sac, and closed its mouth with catgut. The sides of the inguinal canal were brought together by silk sutures. The wound healed slowly, but the child left the hospital quite well at the end of six weeks. I last saw the patient in October, 1883—two years after the operation. There was not the slightest sign of any return, and the inguinal canal remained quite closed. A light truss, at my request, had been worn, but permission was now given to the mother to discontinue it, for we considered that the hernia was absolutely cured. The mother expressed great thankfulness that the strangulation had occurred, for before that event she was constantly engaged in reducing the swelling, and had great trouble in getting any truss to act efficiently.

Case IV.

Charles E., aged nineteen, engineer, admitted to St. Thomas's Hospital, June 17th, 1883, with right inguinal hernia strangulated. A swelling in the groin was first noticed five years ago, it gradually increased in size, but always disappeared on lying down. The symptoms of strangulation commenced early on the morning of admission, and he was brought to the hospital about five in the afternoon. He was then much collapsed with pain. The tumour was pear-shaped, and occupied the right side of the scrotum. An ice-bag was applied, and subcutaneous injection of morphia given. After a short trial of the application of ice, taxis under anæsthetic was attempted, and, failing to reduce the hernia, I operated, and after opening the sac, and relieving a constriction at its neck, I returned the bowel into the abdominal cavity and removed some omentum, placing a ligature on it as high as possible. The testicle was found in the hernial sac, and was normal in appearance. The hernia was, therefore, of the congenital form. The sac was removed in part, and its neck ligatured with stout catgut. Catgut sutures were also employed to bring the sides of the inguinal canal together; a drainage tube was introduced, and the external wound closed with silk sutures.

Antiseptic dressings were applied. The patient made a good recovery, but had a rise of temperature for a few days, due to orchitis, and suppuration requiring a counter opening at the bottom of the scrotum.

He left the hospital on July 18th well, and wearing a truss. He has been under observation now for eight months, and there is no sign of any recurrence of the hernia. The finger cannot be introduced into the inguinal canal, which is closed by adhesive inflammation.

Case V.

William P., aged 45, baker, was admitted to St. Thomas's Hospital on August 20th, 1881, with a large femoral hernia, irreducible, and apparently strangulated.

He had had a hernia for fifteen years, and for the last eight years it had remained irreducible, and of about the same size, namely, rather larger than his head.

On August 22nd, I was compelled, by the symptoms, to operate, and had to open the sac. The contents consisted of the cæcum, with several feet of small intestine, and a large quantity of omentum. I removed the omentum, returned the small bowel, and then separated the adhesions of the cæcum, and ascending colon to the sac, and returned this part of the intestine also.

The sac was next dissected away; the portion of sac removed measured 26 inches in circumference, and was very thick, and cartilaginous in places. A number of stout catgut sutures were then passed through the cut edges of the neck of the sac, and the abdominal cavity thus shut off. All redundant skin was also removed, and parts brought together by silk sutures. The man made a good recovery. This case is recorded at length in Volume XI. of the St. Thomas's Hospital Reports. I have briefly referred to it in order to mention the present condition.

He has worn a truss with large pad ever since whilst at work, and has remained free from his old burden of a large irreducible hernia. With the truss on, no swelling is perceptible; but on removing the truss, and coughing, a swelling of the size of a large egg makes its appearance at the upper part of the cicatrix. His present condition may, therefore, be considered as very satisfactory. This patient was last seen on February 16th, 1884, nearly three years after the operation.

Case VI.

Frances V., aged 46, laundry-woman, was admitted on the evening of August 30th, 1882, to St. Thomas's Hospital, with the following history:—She had suffered from right femoral hernia for twenty years, and on August 30th, 1880, was operated on at Guy's Hospital for strangulation of the same. The hernia was then about the size of two fists. A year afterwards the increasing size of the hernia rendered her truss useless, and it became as large as a child's head, but was always reducible. On December 4th, 1882, during a violent fit of sneezing, the coverings suddenly gave way, and about a foot of intestine escaped through the rent. For this condition of things she was brought to St. Thomas's Hospital. After returning the prolapsed bowel—and the intestine that still remained in the sac—I proceeded to attempt a radical cure, by dissecting away, and removing the thickened sac, and bringing the cut edges of the neck of the sac into approximation by catgut sutures, and then removing all redundant skin. She left the hospital early in January, 1883. I last saw the woman on the 7th of February, 1884—fourteen months after the operation. By the aid of a truss she had been able to keep the hernia completely under control. When the truss is removed, and the patient stands up and coughs, a swelling appears beneath Poupart's ligament nearly as large as a child's fist. There has been no increase in this reappearance during the last few months. She has thus got rid of an immense burden.

This case was read before the Medical Society last year.

Case VII.

Clara F., aged 54, was admitted to St. Thomas's Hospital, July 5th, 1881, with right femoral hernia strangulated. The symptoms had existed three days.

She had been subject to right femoral hernia for four years, and left femoral for twelve years.

On examination a tense swelling of the size of a hen's egg was found in the right groin; the abdomen was distended and tender, and the patient much collapsed. I operated immediately, without attempting taxis, and on opening the sac a small very dark knuckle of intestine was found, and reduced after division of a constriction at the neck of the sac. A portion of omentum was removed, and a considerable quantity of fluid escaped from the peritonæal cavity.

In this case the sac was removed, but I did not place any ligature around its neck. A drainage tube was introduced into the abdominal cavity, and antiseptic dressings applied. The drainage was removed at the first dressing, and the patient made a satisfactory recovery, and left the hospital on August 8th, wearing a truss.

I saw her for the first time afterwards on February 27th, 1884, about two years and a half after the operation, and found to my surprise that the hernia had not only never made its appearance again, but I could not discover the slightest impulse when the patient was standing up and coughing. The left femoral hernia was in much the same condition as when she was in the hospital. This woman had continued to wear a truss according to advice; she had not been leading a very active life, but had suffered for years from a very troublesome cough. She was recommended to still continue wearing a light double truss.

Remarks.—These cases came under my care, for the most part, whilst Resident Assistant-Surgeon at St. Thomas's Hospital, and I am indebted to the surgeons for their kindness in allowing me to take charge of them.

They represent those cases of strangulated hernia, where an attempt at a radical cure was made, and where one has been able to note the after-condition of the patients.

I have ventured to record them, in order to show what a very considerable advantage is obtained by endeavouring, when operating for the relief of strangulation, to place the patient in the best possible condition for after-comfort. The incision for the relief of a constriction, necessarily tends to enlarge the aperture, and often, as a result of this unavoidable weakening of the abdominal wall, the hernia tends to increase greatly in size.

There can be, however, very little doubt, that without much increased risk, this tendency can be overcome, and the patient placed on recovery even in a better state as regards liability to further protrusion, than before the strangulation occurred. A sufficient time, varying from five years to one year, has elapsed since these cases were operated on, to enable one to form an estimate of the advantage gained, and I have no hesitation in stating that they are all in a far more satisfactory condition, than if one had been contented with doing, what was merely absolutely necessary to relieve immediate symptoms. This is more especially shown by cases 2 and 6, for both these had been the subjects of a previous operation for strangulated bowel, and in both the hernial protusion increased in size very shortly afterwards. Since the second operation for strangulation (which was combined with radical cure), number 2 has had no return of his hernia, although more than three years have elapsed, and number 6, instead of the very large protusion which followed the first operation, has been placed by the second in a condition of comparative comfort.

Much depends on the nature of the case, and the degree of strangulation, as to whether the abdominal cavity may be completely shut off, or the operation prolonged by an attempt at a radical cure. In old people I have always been contented with simply relieving the strangulation. When the recovery of the intestine is doubtful, as in Case 7, it would be highly dangerous to close the mouth of the sac; but the sac itself may be safely removed, or a portion of it, near its neck excised. This proceeding hardly involves any increased shock, or lengthening of the operation, and decreases the liability to recurrence considerably. Case 7 affords a good example of the advantage thus derived.

In dealing, however, with very large herniæ, as in Cases 5 and 6, the closure of the mouth of the sac is not only an additional security against protrusion, but the shutting off in this way of the abdominal cavity, must have an important influence on the chance of recovery. The rapid adhesion of the peritonæal surfaces to one another, prevents, in a great measure, the possibility of any septic process gaining access to the peritonæal cavity.

In femoral herniæ of large size, whatever relief may be afforded by removing the sac, the crural opening must remain dilated. In Cases 5 and 6, at the time of operation, three fingers could easily be passed through the ring into the abdominal cavity.

An inguinal hernia naturally gives the best chance of a satisfactory result, for one is able, besides removing the sac, and closing its mouth, to bring the sides of the canal together, as for example in Cases 3 and 4.

In Case 2 no sutures were used for the inguinal canal, and yet the result is a good one, and proves that much may be gained by merely removing the sac. In operating on a similar case, I would, however, now employ sutures for the internal ring and canal.

When the hernia is of the congenital form, as in Case 4, of course a partial removal of the sac is alone possible, and special care is required not to injure the cord.

The question naturally presents itself—What is the best course to adopt, when strangulation has been relieved by an extra-peritonæal operation? The removal of the sac, or at any rate a wide ring of it, seems so essential for a radical cure, and the increased risk (with antiseptic precautions) so small, that in a young, healthy subject, it would appear quite a justifiable measure to adopt. Supposing, however, that one is dealing with a very large hernia, as in Case 5, then the increased risk to life, would, I believe negative the attempt. I should certainly have felt quite satisfied with relieving the constriction; the sac, however, having been of necessity opened, I felt bound to do the best I could, to rid the man of his burden, although the operation was in this case, in consequence, greatly prolonged.

I have not had the opportunity for attempting a radical cure in any case of strangulated umbilical hernia, but probably in certain cases such an attempt would be desirable.

How long should an apparently successful case of radical cure wear a truss? Although much tempted in several of the cases to allow the patient to leave off the truss, I feel that the risk of recurrence is too great to run, more especially as they have all been in serious danger once, and in two instances, twice, from strangulation. The child alone has been granted this indulgence. It would be desirable that those who have had larger experience in this or other forms of radical cure should give the profession the benefit of the later results of their cases.

The Dorpat University.—In January of this year, the total number of students at Dorpat was 1,530, and of this exactly one half (765) belonged to the medical faculty, viz.:—652 medical, and 113 pharmaceutical students. Then follow the juridical faculty with 265 students, the theological faculty with 202, the historico-philological faculty with 184, and the physico-mathematical faculty with 114 students.—*St. Petersburger Medicinische Wochenschrift*, February 9th.

Medical Times and Gazette.

SATURDAY, MARCH 1, 1884.

Politics and party fights have so absorbed Parliament, that very little of special interest to medical men has occurred during the week; but the appointment of a Royal Commission to enquire into the housing of the working classes, will have been hailed with great satisfaction by the profession at large. No body of men are better acquainted than are medical men with the deplorably bad condition of the vast majority of the houses inhabited by the working classes, and with the frightful overcrowding of even the worst of these houses; and none can so well and fully appreciate the extent and gravity of the evils caused by such conditions. We have often dwelt, in these pages, on the physical and moral deterioration inevitably consequent on overcrowding, in even fairly well-built and provided dwellings; and have pointed out that those evils are enormously intensified when, as is so generally the case, those dwellings are badly built, are without proper drainage and sewerage, and are deficient in light, in ventilation, and in water supply. We are, therefore, very glad that the problem of finding how such evils can be effectually remedied, has at last been recognised as a national matter. Many attempts, excellent and successful so far as it has been possible to carry them out, to meet the evils have been made, and are being made by private individuals; and, to some extent, by corporations; and here and there such efforts may have been sufficient. But in large towns and cities, and most markedly in the province of overcrowded houses, called London, private benevolence cannot do more than nibble at the fringes of the subject. Lord Salisbury, in moving for the Royal Commision, dwelt on the greatness of the work to be done, and on the difficulties that beset the question to be enquired into; but though it would not be easy to exaggerate these, the difficulties have to be faced, and the work required has to be done for the sake of society in the future; and the very magnitude and difficulty of the work make it all the more a worthy task for a great and wealthy people to perform, and above all to perform well and wisely.

The Government accepted Lord Salisbury's motion, but with the omission of the words limiting the enquiry to "populous places," so that it will extend to the housing of the poor in country places as well as in towns. The Commission is a strong one, and the fact that the Prince of Wales is a member of it gives an additional and most welcome guarantee that the enquiry made will be a thoroughly searching one. The Commission will assuredly have no difficulty in obtaining evidence, should they need any, as to the disgraceful condition of masses of the dwelling-houses which the working classes are obliged to inhabit, but they will most desire and need information from all who have had actual experience in devising and carrying out schemes for supplying improved dwellings for the classes concerned, and who, be they individuals, companies, or corporations, have acquired a practical knowledge of the requirements that have to be met, the difficulties that must be overcome, and the dangers that ought to be avoided. The absence of certain names of well-known specialists, if we may so call them, in this subject from the Commission is doubtless due to the belief that they can render more valuable service as witnesses than as members of the Commission. The two greatest difficulties that have to be encountered are, how to provide in all instances fitting and satisfactory dwellings for the working classes before actually turning them out of those that have to be improved or destroyed; and how decent and wholesome house-room is to be provided for those workers who find two or three shillings a week for rent a very heavy burden. This rent difficulty has to be met somehow, if unhealthy and demoralising homes and dangerous overcrowding are to be done away with; and the former difficulty has to be overcome, or the destruction of rookeries and slums in one district can only lead, as it has already led, to the creation of new, and perhaps still worse, slums and rookeries in neighbouring districts.

The objects of the Metropolitan Board of Works Bill, which was read a second time in the Lower House on Wednesday, are twofold:—Firstly, to clearly define and enlarge the powers of the Board to impose rates upon the inhabitants of the metropolis for carrying out any scheme that may to the Board seem to be for the good of the ratepayers; and, secondly, to empower the Board to assist any ratepayer who has undertaken to "work out a great principle," *e. g.*, to assist him to fight a water company or a gas company, should either be imposing illegally high rates. This seems very kind and paternal on the part of the Board, but may one ask, who will protect the ratepayers against the Board of Works?

At the last meeting of the Clinical Society, on February 22nd, Mr. Mansell Moullin read a paper on "Thrombosis of the Vena Cava," and exhibited a living subject in whom he had diagnosed the presence of this condition. Mr. Clement Lucas brought forward a case of Charcot's joint disease, which gave rise to a discussion upon somewhat the same lines as the debate at the Pathological Society a short time ago, upon the same subject. Additional interest was, however, infused into it by a short speech by Dr. Moxon, whose voice has of late years been too seldom heard at the Societies. In a few sentences, enlivened by some characteristically delicate touches of sarcasm, he justified his own scepticism as to the immediate connection subsisting between arthritis and locomotor ataxy, and showed that the too close observation of cases of spinal cord disease, might lead to the accumulation of a mass of "epiphenomena," quite as characteristic of simple visceral disorders as of any deep-seated nervous lesion. Dr. Buzzard, on the other hand, maintained his view of the central origin of the disease, which he was inclined to localise in the medulla oblongata, whilst Dr. Julius Althaus spoke with equal confidence as to the influence of peripheral neuritis in its production.

Mr. Noble Smith read a paper "On Dislocation of Semi-lunar Cartilages," which was followed by a short debate, in the course of which two practical points of some importance were elicited. Treatment by complete rest was strongly condemned by more than one speaker, and the use of free movement insisted upon, after the dislocated cartilage is fully replaced and fixed by the apparatus described by Mr. Noble Smith, and devised by Sir James Paget. A useful method of reduction was also mentioned by Mr. Tyson. Several living specimens of interest were exhibited, of which we publish a list in another column.

We are requested to state that the Committee appointed by the Clinical Society to investigate myxœdema, have drawn up a schedule of enquiry. A copy will be forwarded to any gentleman who has had cases of this disease under his care, on application to Dr. Hadden, 21, Welbeck-street, London, W.

The discussion at the Medical Society on the cold-bath treatment of enteric fever, opened last week by Dr. Sidney Coupland, was continued, and after a prolonged and interesting discussion, was brought to a close on Monday evening last. Sir Joseph Fayrer, the President, contributed a curious example of the soothing and non-injurious effect of even long-continued application of cold water to the head. In certain parts of India it appears that mothers who must go out to work place their infants under running water, the body is swathed in clothes, and so placed that it cannot get wet, the stream of water is then so conducted that it trickles over the head and then runs off. Children thus treated remain asleep for many hours together. The typhoid discussion was animated, but as will be seen by our subsequent comments, it turned warmly in support of Dr. Coupland's contention. Even after being prolonged to a late hour, the list of speakers was not exhausted. Under the circumstances, we thought it a little unusual that precedence was given to a paper (which was read by the Secretary), the author of which was not present; while several gentlemen were present, who had signified their wish to speak, and had come expressly to do so.

Dr. Cayley resumed the discussion, and announced himself as a firm believer in the value of the antipyrexial treatment, quoting from a wide experience, both at the Fever and the Middlesex Hospitals. He criticised Dr. Bristowe's conclusions, and pointed out that the two cases which had so impressed him (Dr. Bristowe) with the dangers of the cold bath, could not be regarded as instances of the antipyrexial plan of treatment as advocated by Dr. Coupland in his opening paper. Indeed, he (Dr. Cayley) questioned whether it was advisable to adopt this treatment as a last resort; for its full value could only be expected in cases in which it had been commenced early, and before a patient's vitality had been lowered by the excessive tissue change incidental to long continued high temperature. As regards the value of statistics, he agreed that they should be carefully used; but with proper precautions, in experienced hands, and conforming to certain canons, they might be of the greatest service. He alluded to the effects of age, nationality, characters of different epidemics, and various other causes as influencing mortality returns, and concluded a brilliant speech with the following conclusions:—The cold-bath treatment, when judicially carried out (1) answered the physiological requirements of the case; it kept down metabolism, and thus lessened the "typhoid state." It had a stimulant effect on the vaso-motor system, and prevented granular degeneration and softening of the tissues. (2) The symptoms were materially alleviated, when the temperature was *kept down continuously*. (3) Complications were less frequent and less severe, as the tissues were better able to resist the effects of the disease. (4). Mortality was reduced.

Dr. Samuel West commenced by quoting Liebermeister's opinion that the temperature was the real index of the severity of fever; and then expressed the opinion that this was a one-sided theory, and that, therefore, we were not justified in attributing any favourable results which followed cold-bathing, to the fact that the temperature had been lowered; in other words, that we were not justified in arguing from results. As regards statistics, they were often fallacious, either because of the inaccuracy of the observations, or from insufficiency of the data, or various disturbing causes. Nevertheless, Dr. West quoted the statistics from St. Bartholomew's Hospital for the past 23 years: which were interesting, as bearing out the generally accepted view that the disease is more severe in some years than in others, irrespective of treatment. Appreciating the unreliability, therefore, of mere statistics, he secured the written opinion of the physicians; and as being the general impressions of a wide experience, he thought they would be interesting. It was remarkable, too, how nearly they coincided; thus it was necessary to read only one, and he selected the opinion of Dr. Andrew. This physician never used the bath in ordinary cases, with a temperature under 105° F. He was guided also by the character of the epidemic. He preferred milder measures, such as cradles to keep off the clothes, and a lighter supply of bed-clothing, and a lowered temperature of the room; but thought the bath necessary in hyper-pyrexia. Dr. West's own view was that the cold-water treatment was based on a one-sided view of the process of fever.

Dr. Gilbart Smith had been surprised to hear Dr. Bristowe assert that this plan of treatment had been given up in many hospitals. He showed that in some form or other it was still used largely, and with success, at the London Hospital; and he quoted the statistics of typhoid fever, treated from 1878–1883, giving a total of 456 cases, with a death-rate of 14·9 per cent. He thought it would be well if, owing to the fatigue and trouble of lifting patients into and out of the baths, similar effects could be obtained by other and less troublesome methods, as, for instance, by cooled air; for quiet, he thought, was more valuable than any good that could be got from sponging or bathing; hence, he would reserve these methods for the severer cases only.

Dr. A. T. Myers contributed the statistics and the results of treatment obtained at St. George's Hospital. He said the rejection of statistics amounted to the rejection of the whole method of inductive philosophy; and that the faults lay not in the statistics themselves, but in the logic of those who used statistics. He was particularly struck with Dr. Coupland's figures; of 52 cases admitted during the first and second week of the disease not one had died, whereas, on the "alcohol and expectancy" treatment pursued at St. George's Hospital, no such differences could be traced in the cases admitted early and those which were admitted late on in the disease. The total mortality in St. George's for the past six years amounted to 24 per cent. He believed this might be explained, in part, by the individualism of the patients, and partly by the strict use which was made of the term typhoid fever, only typical cases being included. Dr. Mahomed's paper endorsed the value of the method; he believed that a judicious use of the bath would save about six per cent. of the now fatal cases; habits had much to do with the cause of a fever, and the cold bath was useful in checking bad habits; he would not use them below 70° F., and would not extend them beyond five minutes; the impression of greater cold and longer periods was too profound; he cautioned against an injudicious use of this remedy.

Dr. Broadbent's testimony in favour of cold bathing was emphatic: he said even if he had come to the discussion with an unfavourable opinion, he should have had to change it after Dr. Coupland's and Dr. Cayley's papers; a case for cold bathing had never been better made out than by these speakers. He pronounced himself in its favour, not on these grounds only, but as the result of a long and varied experience of fever cases. Dr. Maclagan took an opposite view: cold bathing, he said, could not fail to drive the blood to the internal organs, and must necessarily increase the dangers of bowel lesions, a fact clearly brought out by the statistics before them. Dr. Sansom added his testimony in favour of the practice, which, he said, he had himself adopted, in one way or another, since 1871. Dr. Fowler had been connected with several hospitals; at one he had seen the alcohol treatment tried; at another the expectant method; and at his present hospital, the Middlesex, cold bathing was the plan adopted; he had no hesitation in expressing his adhesion to the last-named plan of treatment. Dr. Coupland, in reply, was pleased to find such a large preponderance of evidence in favour of the plan he had advocated; and as a reply to an objection which had been raised by one or two speakers, he read from a letter just received from a private practitioner, formerly one of his house-physicians, at the Middlesex Hospital, the following statements:—"I find no difficulty in carrying out the bathing of typhoid patients in their own homes," and "however much opposition there may be on the part of friends at first, they are soon convinced of the beneficial effects of the bath."

At the Royal Medical and Chirurgical Society, on Tuesday Mr. Chavasse, of Birmingham, read a paper on "Neurectomy of the Second Division of the Fifth Nerve, including Meckel's Ganglion." Surgeons are well acquainted with cases of intractable neuralgia which sometimes resist every treatment, and they will be grateful to Mr. Chavasse for introducing to their notice an operation which promises to be of some real service. The paper will be found fully reported in another part of this journal. At the same meeting, Dr. Gibbes showed a remarkable series of microscopic preparations of putrefactive bacteria. They were admirable specimens of double and triple staining, and thanks to the use of well-constructed condensers (on Dr. Gibbes' own model) the bacteria were unusually clear and distinct. Mr. Heath exhibited a man from whom he had removed the upper extremity, including the scapula and part of the clavicle. This operation only appears to have been carried out in some eleven or twelve other instances.

The annual meeting of the Royal Medical and Chirurgical Society will be held this (Saturday) evening, when the following list of officers and other members of Council will be balloted for:—President—*George Johnson, M.D., F.R.S. Vice-presidents—*William Overend Priestley, M.D.; Reginald Edward Thompson, M.D.; Richard Barwell; William Scovell Savory, F.R.S. Treasurers—Charles Bland Radcliffe, M.D.; John Cooper Forster. Secretaries—Richard Douglas Powell, M.D.; Matthew Berkeley Hill. Librarians—Wilson Fox, M.D., F.R.S; John Whitaker Hulke, F.R.S. Other members of Council—George Fielding Blandford, M.D.; Dyce Duckworth, M.D.; Samuel Jones Gee, M.D.; Frederick William Pavy, M.D., F.R.S.; *Charles Theodore Williams, M.D.; *John Croft; *Sir William MacCormac; *Thomas Pickering Pick; *William Sedgwick; William Spencer Watson. (Those gentlemen to whose names an asterisk is prefixed, were not on the Council, or did not fill the same office last year.) Sundry minor changes in the by-laws will also be proposed. The Council, we find, being anxious to increase the number of old standard works in the library, invite Fellows to inform the Resident Librarian, when opportunities occur for obtaining such books. We have noted with satisfaction the increased vitality and interest which have characterised the meetings during the past two sessions; and hope, and doubt not, that under the new President, this increased vigour will continue to manifest itself.

The sub-committee, nominated by the President, after the last meeting of the Royal Medical and Chirurgical Society, to report further on the microscopical preparations of cholera exhibited to the Society, have reported as follows:—"We have examined the microscopical preparations exhibited to the Society on February 12th, 1884, and have found in them the micro-organisms described by Dr. Straus; but do not observe any features of the bacilli in the tissues that can be considered as specific. (Signed) E. Klein, M.D., F.R.S.; Heneage Gibbes, M.D.; Victor Horsley, B.S., F.R.C.S."

Dr. Angel Money writes, with reference to our last week's note on his paper on "Infantile Paralysis," read at the meeting of the Pathological Society, "you say Dr. Money contending that the chief cause was a

faulty blood supply and not an inflammation of the grey matter. This statement does not exactly represent what I maintained at the meeting of the Pathological Society. I believe that inflammation of the grey matter undoubtedly exists in cases of infantile palsy, and that this inflammation is the result of vascular disorder."

The new Military Medical Society of Woolwich have recently been discussing how antiseptic surgery may be carried out on the field of battle and in war—a subject of vital importance at any time, but especially so in these days of gigantic and universal armaments. It is quite impossible to say how many lives might not have been saved in the late wars, could such a system have been at all adequately carried out. A paper by Surgeon-Major Godwin introduced the subject. He entered into the now well-worn theory of inflammation and suppuration, and pointed out how they were no necessary result of a wound, and that repair could be obtained without them, and with greatly diminished risk to life and limb. He then pleaded for the introduction of *Listerism* as routine treatment in all military hospitals and schools, in order that army surgeons, and indeed the whole department, might have a thorough grasp of the subject and be familiar with its every detail; this, he said, would be the first step towards its introduction into actual warfare. Reference was made by several speakers to the necessity of every surgeon being familiar with the treatment, and provided with the means of carrying it out. It was of no use, they urged, if not done thoroughly and continuously, and to be really effective it should be commenced before decomposition had taken place; for this process once set up was difficult to arrest, wound fever set in, and death was only too often the result. The chief difficulty lay in providing adequate measures at the front. This, it seems to us, is only to be done by the surgeons in charge of the first or field-stations being thoroughly imbued with a sense of the importance of asepsis, and provided with the means of properly carrying out its principles. No amount of subsequent care and skill at the transfer and dressing stations will avail, unless this first condition can be accomplished.

It is needless to say that Sir Joseph Lister, in the course of the debate, spoke with his accustomed enthusiasm in favour of the project He referred especially to the value of corrosive sublimate solutions as being in some respects superior to carbolic acid, in that they were non-volatile, and therefore useful for cleaning sponges, hands, instruments, &c. He spoke also of iodoform and its advantages, and mode of use. There were many other speakers, including the Director-General, who in an excellent speech, while expressing his full approval of the idea, drew attention to the material difficulties of the question; he showed the insufficiency of all the hitherto suggested methods for providing each man with a complete occlusive and antiseptic dressing for first use. Apart from other difficulties, he said, he could not rely on the soldiers themselves. On the other hand, he was in favour of all army surgeons being well drilled in the use of the antiseptic methods, and well provided with the means of carrying them out on the field.

We are a little inclined to join issue with Sir James Hanbury, who seemed to think that our greatest difficulties will be experienced in colonial and distant, rather than in European wars, for in the latter we have "all the resources of civilisation to fall back upon." The facilities of transport, by passing the wounded rapidly through a large number of hands, in our opinion, will immensely complicate the question; besides which, if past experience be worth anything, the strain on the department will be proportionately greater owing to the larger numbers engaged and wounded. In our colonies and outlying countries, the numbers engaged are much smaller, and the wounded have a better chance of early and efficient attention. In a recent work, Dr. Brown gave his Zulu experiences, and recorded instances of bullet wounds healing by the first intention; a result, we venture to think, which was never attained during the Franco-German war. On the other hand, the immense amount of human life concerned after a large battle in a European country—as, for instance, on the 14th, 16th, and 18th August, 1870—renders the need for antiseptic surgery the more pressing, and its attainment the more difficult. *Apropos* of the suppression of the carbolic spray, we are inclined to think that, whereas in small wars, and with few wounded to attend to, it may be safe to operate without it; in large wars, with necessarily overcrowded, ill-adapted, and badly ventilated wards, its use will prove of the highest value, not to say of absolute necessity.

In a recent number of the *Centralblatt für Chirurgie*, Dr. Lesser made a suggestion as to how a first antiseptic dressing might be constructed so as to be conveniently carried by the soldier. He would give each man one less than the normal twenty cartridges, and would replace this by a cartridge-case filled with an antiseptic powder, a mixture of iodoform and boracic acid. In addition, the man is to have a bandage soaked in spermaceti, a little absorbent wool, and a three-cornered handkerchief. The mode of use is simple—the wound is sprinkled with the powder, one or two turns of the bandage are then made over this, then the wool is put on and over this again the remainder of the bandage, and, finally, the three-cornered handkerchief. "In this way, the cartridge, which carries death for the enemy, carries for us the means of healing wounds antiseptically, and so saves the lives and health of our wounded soldiers." We sincerely hope that some practical outcome will be the result of this discussion.

The success which has attended the formation of the Medical Sickness Annuity and Life Assurance Society at so early a period of its development, when the profession as a whole have hardly acquired a knowledge of its existence, is in the highest degree satisfactory. Over 40 gentlemen in various parts of the kingdom have consented to act on the General Committee, and from their number a Provisional Executive Committee, which has already held several meetings, has been formed. The advantages offered to those who assure in this Society are as follows:—1. A certain sum per week (from two to four guineas),

according to amount of premium, during illness. 2. An annuity after 65 years of age. 3. A certain sum at death. The Society is based on principles of purely mutual assurance, the whole of the funds becoming the property of the members, whose liability is strictly confined to the quarterly premiums. The Society will be registered under the Friendly Societies Act.

It cannot be too widely known that, though this Society took form at a meeting held during the session of the British Medical Association at Liverpool, it has no direct connection with that body, but is open to all registered medical practitioners in the United Kingdom. The number of gentlemen who have joined is already sufficient to augur well for its future success. The opinion of Mr. Neison, F.I.A., as a leading actuary, has been obtained on the rules and tables, and, after examination, he has certified that in his opinion they form a sound basis for the work of the Society. Copies may be had of the Secretary, Mr. C. J. Radley, at the temporary offices of the Society, 26, Wynne-road, Brixton, S.W.

There was a general rise of the death-rate throughout the country last week. The increase in London was not so marked as elsewhere, for while in the metropolis the deaths only mounted from 1,528 to 1,552, and the death-rate from 19·8 to 20·2, in the 27 other great towns (whose aggregate population is three-quarters of a million more than that of London), the number of deaths rose from 1,839 to 1,986, and the death-rate from 20·1 to 21·1 per 1,000. In the eight large towns of Scotland the increase was still more marked, the death-rate having shot up from 20·9 to 22·6. This rise in the death-rate is not connected with any marked increase in the fatality of zymotic diseases; for in London the zymotic death-rate stands at exactly the same point as last week, viz., 2·7; in the 28 large towns it has only gone up a decimal point, from 2·6 to 2·7; and even in the Scottish towns, where the general death-rate has risen by 1·7, the zymotic rate has only risen 0·2.

The London returns contain nothing especially noteworthy, except that small-pox appears to be somewhat on the increase, the metropolitan asylum hospitals being fuller than they have been since August year. A death in Guy's Hospital was recorded from "malignant pustule." The following table shows, at a glance, the comparative prevalence of the different zymotic diseases in London during the first eight weeks of the present year.

Diseases.	1st Week.	2nd Week.	3rd Week.	4th Week.	5th Week.	6th Week.	7th Week.	8th Week.	Total.
Small-pox	6	2	5	2	1	4	2	4	26
Measles	48	47	42	42	30	19	35	42	305
Scarlet Fever	33	38	34	32	33	34	22	37	283
Diphtheria	16	15	16	16	23	19	26	14	145
Whooping-cough	68	63	69	80	85	78	83	82	608
Enteric Fever	12	17	24	20	14	21	21	12	141
"Fever"	2	3	2	2	2	1	1	0	13
Diarrhœa and Dysentery	8	4	10	9	7	10	17	17	82
Simple Cholera	–	–	–	–	1	–	1	–	2
Total zymotic deaths	193	189	202	203	196	186	208	208	1,585
Zymotic death-rate	2·5	2·5	2·6	2·6	2·5	2·4	2·7	2·7	—

The Registrar-General for Ireland has just issued his return for the last quarter of last year. The birth-rate was 21·2, or 1·1 below the five years' average, and the death-rate 16·2, or 1·2 below the average. The number of deaths registered during the quarter were 2,236 fewer than the number registered in the corresponding quarter of 1882, though the deaths from zymotic disease were higher by 87 than in that quarter. Even with this increase, however, the zymotic death-rate of Ireland for the quarter in question, viz., 1·6, compares most favourably with that of England, which during the same quarter was 2·27. The following represents the respective mortalities from the chief zymotic diseases in the two countries during the quarter:—Small-pox, England 731, Ireland 2; measles, England 2,493, Ireland 142; scarlet fever, England 4,197, Ireland 599; whooping-cough, England 1,794, Ireland 418; diphtheria, England 1,227 Ireland 59; diarrhœa, England 3,148, Ireland 317. In the English returns the fevers are all placed under one head, the deaths from all the different forms during the quarter numbering 2,197; in Ireland the deaths number 413, distributed as follows: typhus 182, enteric 175, simple continued and ill-defined fever 56. When we remember that the population of England is about five times as numerous as that of Ireland, it will be seen that, in spite of his unsanitariness, Paddy beats us hollow in his resistance to all the zymotic diseases, except whooping-cough and fever. In England 11·8 per cent. of the total deaths during the quarter were due to zymotic disease; in Ireland only 9·6 per cent., and this figure is much higher than the average.

A death under anæsthetics occurred at the New Hospital for Women, on the 22nd ultimo. The patient was a woman, aged 32, who suffered from extensive disease of the kidneys—as was verified *post mortem*—and went into hospital by the advice of her family doctor. It was found necessary to perform an operation, and the A,C,E, mixture was administered by Mrs. Marshall, one of the medical officers of the hospital. The patient was six or seven minutes getting under, and the operation had scarcely begun when respiration stopped. It was kept up artificially for an hour and a half, but without avail. Mrs. Garrett Anderson, who gave evidence at the inquest, considered that death was due to syncope.

The *Morning Post*, which is always well informed on medical topics, has published a very sensible article on anæsthetics. Commenting on the satisfactory statement that only nine deaths are reported in the medical journals to have occurred in the United Kingdom from the use of anæsthetics in 1883, whereas 28 were reported in 1882, and fifteen in 1881, it calls attention to the fact that in many of these cases the fatal result may have been due, not to the anæsthetic, but to the operation. It is exceedingly difficult, it continues, to differentiate the two causes, and in the old days when chloroform was unknown there were numerous deaths from sudden stoppage of the heart's action, caused by mere fright before any application of the surgeon's knife.

SPEAKING of nitrous oxide, the *Morning Post* fears that the growing practice, especially among dentists, of administering it single-handed, will be productive of mischief, and will tend to discredit its employment, even in a proper fashion, and it doubts "whether the theory and practice of this and other anæsthetics is sufficiently taught in some of our medical schools. A special certificate from an expert is required to qualify a medical practitioner for performing the very simple operation of vaccination; and it might be well to apply at least an equal test to the student's knowledge of the art of sending his patient to the realms of happy unconsciousness, and, what is more, of bringing the patient back again."

NOT long since, we called attention to the discreditable condition, from a sanitary point of view, of a large proportion of the better class of houses in London. Our contention is borne out by the report of the Council of the London Sanitary Protection Association, presented at the general meeting, held on the 23rd ultimo. Of 404 houses inspected by the engineers of the Association, during 1883, most of them being private dwellings in London and the neighbourhood, two per cent. were found to have their drains utterly closed, and entirely unconnected with the sewer, so that all the foul matter sent down the sinks and soil-pipes simply soaked into the ground at the basement of the houses. In twenty per cent., the soil-pipes were leaking, allowing sewer gas, and in many cases liquid sewage, to escape into the houses; in 23 per cent., the overflow-pipes from the cisterns led directly into the drains, allowing the sewer gas to contaminate the water in the cisterns, and in many cases to pass freely into the houses; while in 67 per cent., the waste-pipes from the baths and sinks were not properly disconnected from the sewers. These figures are very startling, as showing in how large a proportion of otherwise well-formed houses the very A. B. C. of sanitary science is disregarded. There is no doubt that both the London Sanitary Protection Association and the Sanitary Assurance Association—both of which have held their third annual meetings since our last number appeared—are doing most valuable work towards the improvement of the health of the better classes.

IN one of the most striking scenes of a novel published not long ago, the hero is represented as surreptitiously peering through the windows of a gymnasium and watching the heroine performing on the trapeze. The exercise is not recorded to have had any injurious effect on the performer, but Mr. Percy Dunn has written to a morning paper, strongly condemning the use of such violent athletics by ladies. It is essential to recollect, he writes, that inasmuch as the muscular development of woman is naturally less than that of man, there are many reasons for believing that any attempt to engage in severe muscular exercise is bound to produce in woman some distortion of the frame. For instance, the large mass of muscles composing the abdominal wall developes much more readily than do the muscles of the back. This, together with the fact that the generality of movements in gymnastics implies a bending forward of the upper part of the body, causes the girl to stoop, and the back in time exhibits an ungraceful rotundity.

MR. DUNN further complains: — Many girls are allowed to "take up" gymnastics who are physically unfit for any such exercise, and to require one such girl to perform a severe gymnastic feat savours of an unpardonable indiscretion, when on the completion of her task she retires to a seat, breathless and deadly pale, indicating the extent to which her heart has suffered from the exertion. He, therefore, thinks that no parellel bars exercise, no trapeze, no horizontal bar or ladder exercise should be permitted; but dumb-bell practice *ad libitum*, combined with as much drilling as may be desirable; and lastly, no girl should be allowed to enter a gymnastic class unless she can produce a medical certificate that she does not suffer from any organic insufficiency which might be aggravated by the physical efforts indulged in.

WE hesitate to criticise Mr. Dunn's anatomical circulation; but arguing from that light of nature which is so kind to the student, the practitioner, and even to the writer, we should have been inclined to contend that hypertrophy of the abdominal muscles was impossible without an equal hypertrophy on the part of their antagonists, especially as in any position approaching the erect, the latter have to work against the force of gravity, which is usually an ally of the abdominal muscles. Besides, we fancy it would have fared very much better with many married ladies, both in pregnancy and confinement, if they had cultivated their abdominal muscles in their youth. Is not a round back due much more to unantagonised pectorals than to unantagonised abdominals?

A FANCY-DRESS ball was given at Willis' Rooms on Tuesday week, in aid of the fund for establishing the New National Italian Hospital, which has recently been opened at 41, Queen Street, Bloomsbury, the guests including most of the more prominent and influential members of the Italian colony in the metropolis. The hospital, which is likely to benefit substantially by the entertainment, owes its existence mainly to the philanthropic efforts of Cavalier Ortelli, who has contributed 150,000 lire, while it has been zealously supported by the Italian Ambassador, Count Nigra. Signor Sperati has also contributed large sums of money to the project. As in the case of the German Hospital at Dalston, it is not proposed to draw a hard-and-fast line in the matter of the nationality of the patient, although of course it will be devoted mainly to succouring the compatriots of those to whose efforts its addition to the long list of benevolent institutions in London has been almost exclusively owing. At present it only makes up eighteen beds, but it has room for thirty; and it is intended to add a dispensary for out-patients. Its staff consists of four medical officers, attending in turns, and the nursing is in the charge of skilful Sisters of Charity from the principal Italian hospitals.

The purity of our food supply never fails to form an interesting topic. Most articles of food are capable of adulteration, and it often becomes a question whether we are prepared to put up with this, rather than as to the precise amount of damage likely to result from the added materials. Copper has been regarded as an advantage as a nervine tonic, dilution of milk is constantly advised in the artificial feeding of infants, but we all wish to know, as far as possible, the precise nature and proportions of the added ingredients, and for greater security on these points, we prefer making the addition ourselves. Purity does not, however, depend solely on absence of intentional adulterations. In fact, it is certain that the sins of omission, of ignorance, and neglect on the part of our food purveyors have far more dangerous consequences to health than their wilful sophistication of the wares they sell. A hundred deaths have been probably caused by carelessness as to dairy drainage and water supply, for one that is traceable to adulteration in the popular sense of the term.

At the last meeting of the Lambeth Vestry, the medical officer reported the results of an inspection of the bake-houses in the parish, in one hundred and thirty-four of which improvements were found necessary. Many were declared to be in a highly unsanitary state, and in some sewage was found percolating through the floor. The high temperature to which bread is exposed in the baking no doubt takes the sting out of any germs that the dough may have contracted relations with. Still, it is not pleasant to think of our staff of life being possibly made in a deadly atmosphere; and where there is such carelessness as to the simplest sanitary rules, it is difficult to get over the idea that there may be equal want of care as to cleanliness in other respects. Those who have read the report on the state of London bake-houses, presented to the Government by Mr. Tremenheere some twenty years ago, will well remember the horrible descriptions he gave of his experience in those loathsome cellars—the festoons of cobwebs hanging from the rafters, the animals crawling about the kneading-trough, the smells from the drains, and the perspiration dropping from the faces of the bakers into the dough as they kneaded it. In the district of an energetic health officer, such scandals are happily impossible now, but the experience of the Lambeth inspectors shows that it requires strict and constant supervision to keep the bakers up to the sanitary mark.

It is no excuse that other countries are even behind us in the matter of sanitation; still there are some, whom it may console to read what an American contemporary found in certain transatlantic bake-houses. "In one place we found the cat and dog asleep in the kneading-trough, fowls running around and perching on the various utensils, and a general air of filth and lack of thrift. In one shop the kneading-trough was connected with the sewer, by means of an untrapped waste-pipe; in another the soil-pipe had burst, and the floor was flooded with liquid filth. The baker said that 'that always happened after a rain-storm.' I have seen a baker mixing his bread with hand and arm covered with the eruption of eczema. He said that 'the doctor told him the dough was good for the disease.'"

Talking of food, it is curious what mistaken notions prevail about the preparation of various articles. A short time since a speaker in the cause of temperance urged the disuse of alcohol, as it was not a natural product, but resulted from fermentative decomposition. Hard words and true, and likely to catch the popular fancy and largely spread. But what a discovery to make! Why not have gone a step farther, to describe other forms of fermentation, the obvious result of which would have been the wholesale elimination of some of our commonest articles of diet? Without entering into the question of how far all plant life gains tissue from the fixation of carbon from carbonic acid—the ghost of decayed tissues—it might be worth remarking that the objection urged would apply also to bread. Our indebtedness to materials which are not "natural products" will not cease until we agree to discard all the works of man, even railways, houses, and clothes; and we venture to hope that the day is yet distant when the most rabid abstainer would urge such a course. Even in a good cause truth should be regarded, and truthful inferences encouraged.

There are, and have been for some time, says the *Army and Navy Gazette*, two vacancies on the list of Inspectors-General of Hospitals and Fleets. At the end of this month, Deputy-Inspector-General James N. Dick, now in charge of Malta Hospital, will have completed the necessary period of service for promotion, and will be gazetted to one of the vacancies. Another officer is also qualified, but, for some unaccountable reason, has not yet been promoted.

A correspondent writing to us from Glasgow, with regard to our article on "The Lash" in a recent issue, says:—"I lived in Toronto, Canada, for some years, and tried my best, through the press there, to fight against the use of the lash. One case there, about two years ago, roused great indignation. An exceedingly graphic, and therefore horrible, report of its infliction was ably written by a reporter to one of the local papers, so that the public for once realised what the penalty really meant. In that case also the penalty had been ordered in two instalments. Several writers, including myself, made the press ring with the subject, and finally the second instalment was remitted. I do not think there have been any 'repeated floggings' adjudged since."

The French ministry has requested an opinion from the Paris Academy of Medicine, as to the propriety of allowing the importation of American pork, considering the danger of introducing trichinosis into France. If the same request had been addressed to the Academy before an arbitrary ministerial decree prohibited its import, the answer received might have done something towards preventing that mistaken course of policy, which has inflicted much hardship on the

working classes in France. The Academy appointed a committee consisting of Professors Bouley, Brouardel, Chatin, Colin, Laboulbène, with Dr. Proust as reporter. Dr. Proust's report has been very favourably received and generally agreed to, for Professor Paul Bert's eccentric statement that trichinosis prevails extensively in France, but has been mistaken for typhoid fever, has produced little or no effect. The Academy finally resolved—1. An epidemic of trichinosis cannot be confounded with one of typhoid fever, for though in one of its phases it may present symptoms of a typhoid character, there is no identity between the two diseases, and the evolution of trichinosis will always allow of its diagnosis being established. The symptoms, progress, duration, pathological anatomy, and nature of the two diseases, are absolutely different, both in isolated cases and in the epidemic form. 2. No case of trichinosis has as yet been observed in France or England, as a consequence of the consumption of salted provisions brought from America, and the importation of such food should be permitted. 3. It would be advantageous to create a common understanding with the countries importing trichinosed meats in relation to the special measures to be enforced as a guarantee at the export ports. 4. Instructions should be prepared and widely distributed, insisting upon the effectual cooking of such meats, and all tradesmen selling them should affix to them these instructions.

At a meeting of the Conseil d' Hygiène Publique, M. Leblanc reported that rabies and hydrophobia in Paris continue to sensibly diminish in the Department of the Seine. In 1881, the number of cases of rabies verified was 615 ; in 1882, 276 ; and in 1883, 182. In 1881, there were 729 animals bitten; in 1882, 294; and in 1883, 198. The same rate of decrease has been observed in the number of persons bitten, viz., 156 in 1881, 67 in 1882, and 45 in 1883. The best result of all, however, is the decrease of cases of hydrophobia, which have declined from seventeen in 1881 to eleven in 1882, and to six in 1883.

On Monday last M. Pasteur communicated to the Paris Academy of Science some very interesting results of his recent experiments with the poison of rabies. He finds that if the virus is brought into direct contact with the brain, an acute attack invariably follows, but that if it is injected into the veins, the result is more often a chronic form of the disease, unaccompanied by barking or ferocity. Fowls and pigeons inoculated with the poison show signs of the disease, but recover from it. The infection can be communicated by inoculation with portions of the spinal cord or nerves of an animal suffering from rabies. But the most interesting statement made by M. Pasteur is that he can render dogs insusceptible of the infection, by inoculating them with a modified virus.

Prof. Kowalewski, of Odessa, has received a call to the Zoological Chair at the new University of Marseilles, the salary being 15,000 francs per annum.

An Anthropological Society has been founded at Bordeaux, with Dr. Azam as president, and Dr. Testut as vice-president, both being members of the Faculty of Medicine of Bordeaux.

The death of an Italian practitioner, who once played a conspicuous part in the revolutionary movement, is recorded. Dr. Caspar Belcredi, who died near Bergamo on the 16th ultimo, in the 84th year of his age, was the oldest survivor of the "Young Italy" party, and was once Mazzini's private secretary. He was born at Pavia, and came of a noble stock ; he devoted himself to the study of medicine, joined the revolutionary party in 1833, was compelled soon after to flee to Switzerland, and subsequently practised for some years in France. He returned to his native country under the amnesty of 1839, but having become again implicated in the revolutionary propaganda, had again to take flight in 1847, England being now his refuge. It was at this time that he became secretary to Mazzini. In 1859, he was again allowed to return to Italy, where he settled down at Bergamo, gave up politics, and achieved a considerable reputation as a physician.

According to the *Pharmaceutische Zeitung*, the proposed medical reform in Prussia will include the appointment of Local Sanitary Councillors, and the establishment of Councils of Provincial Physicians, which would be expected to assemble at least once a-year. No provision is to be made for the representation of the apothecaries.

Some weeks ago we announced the fact, that the Berlin Medical Faculty, at the request of the Minister of Public Instruction, had taken the question of vivisection into its earnest consideration, and it had come to an unanimous conclusion as to the opinion upon the subject, which it wished to be submitted to the Legislature during the approaching discussion. The Committee holds that vivisection is absolutely necessary, whether for the purposes of scientific enquiry or medical education ; and that without its aid, progress in physiological investigation is not possible, nor can the student attain a proper idea of some of the most important vital processes. A series of experiments upon animals are indicated, which are essential for medical instruction, if the laws of the influence of the nervous system on digestion, circulation, &c., are to be thoroughly understood and rendered capable of practical application for the restoration of health ; the present time, moreover, is one in which medical science may be expected to derive especial advantage from these experiments in the investigation of epidemic and contagious diseases, and the determination of the efficacy of the various measures employed for their prevention. The regulations regarding water supply, the removal and disinfection of excreta, &c., could never have been determined upon without the aid of experiments. Numerous striking examples are furnished of the enormous importance and great utility of such experiments in relation to the State and society, and to the progress of science. The report is from the pen of Geheim-Rath Professor Dubois-Reymond, whose colleagues on the Committee were Professors Virchow, Westphal, and Leibrich.

Jubilees are of never-ceasing occurrence in Germany and Austria, and with so large a number of professors to fall back upon, the source of supply for a succession of such festivities is not likely to fall short. Institutions are also to have their turn. The Würzburg University lately celebrated its 300th anniversary, and it has just been resolved at a meeting of the staff, that the centenary of the Wiener Allgemeine Krankenhaus, which was founded by Joseph II. in 1784, shall be celebrated with considerable ceremony during the summer of the present year. Its vast clinical capabilities, and the great advance it has contributed to the progress of pathological anatomy, and indeed to that of every branch of medical science, are known and appreciated throughout the medical world. The real centenary of the hospital would occur in August, but a Committee, consisting of Professors von Braun. von Dittel, Kundrat, and von Schrötter, have decided that the celebration shall take place in June instead. During August academic enthusiasm is generally on the wane in Vienna, or is transferred to some distant city, where the attractions of a Congress are happily commingled with labours of a lighter sort.

A curious book has just been published in Sweden. It is written by a mad-doctor, and has been set up, printed and bound by his patients. This is how it happened. Amongst the inmates of the Konradsberg Lunatic Asylum at Stockholm, there happened to be a compositor, and a supply of type and a small hand-press were provided to give him occupation and amusement. One by one several other inmates became interested in the matter, and were instructed by their fellow-patient in the art of type-setting. Dr. Björnstrom, the medical chief of the asylum, gave his support to their efforts, holding that such an occupation not only provides for the insane a pleasant and useful amusement, but also, like all regular mechanical labour, tends towards their cure. He, therefore, introduced a complete printing press into the asylum, entrusted it to a patient who happened to have been a printer, and directed that all his patients who showed any inclination for the work should be instructed in its use. The thing now was to find "copy," and here again Dr Björnstrom was not at fault. He had written a work on "Diseases of the Mind and Abnormal Psychical Conditions, regarded from the Forensic standpoint." He at once entrusted the manuscript to his patients, with the result that they have turned out a book of 202 pages, the type, binding and general appearance of which are such, that no one would ever suspect that they were entirely the work of the class of unfortunates, to whose sufferings its pages are devoted.

The journalistic enterprise of the profession throughout the world is so vigorous that, if we were to herald the birth of every new medical journal that comes into our hands, we should be heralding one or more every week. The last new "bantling," for so it modestly describes itself, which appeals for notice, is one which the medical press in England may cordially welcome, and wish prosperity to. It is called the *South African Medical Journal*, and is a sheet of sixteen pages, published at East London, a town on the Buffalo river, which has risen in the short space of half-a-dozen years from being a little German village to be the third port in the Cape Colony, and an important centre of commercial activity. This is not the first medical journal that has been published in South Africa. Several decades ago, a paper was started in Cape Town, edited by Dr. Ebden, but it only lived for a year, and fell through when its editor entered the Indian medical service. After many years service in India, Dr. Ebden returned to Cape Colony, and in July last took a principle share in the formation of the South African Medical Association, with which the new journal promises to cordially co-operate.

The editor of the *South African Medical Journal* introduces his enterprise to his readers in a very modest preface, in which he apologises for his first issue ; but he has managed to put together a paper of much more interesting and varied character, than many of his bulkier contemporaries in the mother-country and other colonies. He has collected several interesting papers, but if the following extract, from one of his leading articles, is not grossly libellous, he will find the ethical function of his journal quite as important as the scientific. "None can deny," he writes, "that our ethical tone, bad as it is in England, is worse here. We know of town after town in the colony, where for a patient to suggest a consultation is to mortally offend, where the courteous assistance of one practitioner to another is a thing unknown, and where patients, in the temporary absence of their own attendant, are left to the tender mercies of chance."

Here, in London, we are rather given to be wantonly amused at the tried country practitioner, whose plaintive protest against his rival, Dr. A. B.'s treatment of him in reference to the case of Mrs. C. D., appears so frequently in small print in the *Lancet;* but we imagine that the *South African Medical Journal* might do a good work, if it could provide a similar column, in which such reprobates as Dr. A. B. might read the bare anonymous recital of their peccadilloes. Possibly they might then have the good taste to feel conscience-smitten, and take pains to avoid such alphabetical strictures in the future ; while others, trembling on the verge of ethical trespass might be kept in the right road by the fear of the matter-of-fact compositors in East London. In that town, we are glad to read, "cordial friendliness exists on all sides, and fraternal assistance is given and received," so that the editor need have no fear of reprisals.

The appointment of Sir W. Guyer Hunter, as Knight Commander of the most distinguished Order of St. Michael and St. George, was notified in the *London Gazette* of Friday week.

Dr. Bristowe's report on the Sanitary Acts, in their relation to the very poor, appearing, as it does, just after the appointment of a Royal Commission to investigate the whole subject of the dwellings of the poor, deserves and will, we hope, receive the careful attention and consideration of those whose duty it is to endeavour to probe this great matter thoroughly. As the out-

spoken opinion of one who has had many years' practical experience, we consider it especially welcome just now; for surely none are so well qualified to speak on this question as those whose business it has been to enquire into the sanitary condition of such dwellings. The problem is beset with far greater difficulties than many even of those who consider themselves quite competent to pass an opinion would admit, and is not by any means to be solved offhand on general principles or theoretical grounds. The habits of the class for whom it is proposed to legislate, cannot be revolutionised by Act of Parliament, and, as Dr. Bristowe very justly observes, slovenliness, improvidence, recklessness, dishonesty, offences against the seventh commandment, lie beyond the immediate scope of the sanitary authorities. Amongst the many difficulties in carrying out the Sanitary Acts to which Dr. Bristowe alludes are some which would not suggest themselves to those benevolent philanthropists who have made up their minds after a few days' cursory inspection. Of these we shall only mention the difficulty that frequently arises in determining what constitutes a nuisance or injury to health; dirt and entire absence of any pretence at tidiness would make a great impression on one unaccustomed to such a state, but do not in themselves imply a condition injurious to health, nor is such a tenement of necessity unfit for human habitation. If habits of personal cleanliness could somehow be impressed upon the lowest classes, so as to become a second nature with them (the very opposite being at present the fact), then we believe that the greatest obstacle would have been overcome, and improvements in their dwellings would follow without the aid of State or parish intervention.

The March number of *Blackwood* contains a passionate attack on the Medical Act of last, and presumably of this, year. It is evidently of home growth, being written in the interest of the Scottish Colleges, and in a thoroughly partisan spirit. No attempt is made at a judicial consideration of the question, and the arguments on the other side are quietly ignored. We are not concerned to defend Mr. Mundella's Act, but it is, on the face of it, an absurd contention that a measure, mainly founded on the recommendations of a Royal Commission, passed by the House of Lords after very thorough consideration, and accepted as a fair settlement of the question by the body of medical opinion outside the corporation cliques, should be such a villanous one as the writer in *Blackwood* tries to make out. Many of his objections to it are utterly trivial, and others are altogether beside the mark. It is a pity that the Edinburgh Colleges and their supporters, self-constituted or otherwise, cannot understand that they will find no sympathy south of the border. They have for years rendered more or less futile the attempts to improve medical education in England, by keeping the standard of their examinations considerably below the minimum of the English standard, and in consequence have attracted and passed men who have utterly failed to get an English qualification. For our own part, we see no reason why the Legislature should be expected to deal tenderly with the Scottish Corporations. Certainly the medical jingo who writes in *Blackwood* has not provided us with any.

THE COLD-BATH TREATMENT OF ENTERIC FEVER.

The Medical Society of London has just concluded a most instructive discussion on the above subject. When we remember how wide-spread is the disease, how insidious its onset, how rich and poor alike suffer, what a severe type it not infrequently assumes, and what a high death-rate it occasions, it will be conceded that few more important subjects could have occupied the time and attention of the Fellows. We have given the pith of the discussion in another part of this journal, and it now only remains for us to gather up the threads, and place before our readers the lessons which may not unfairly be deduced.

Dr. Sidney Coupland, to whom the Society was indebted for the initiation of the discussion, contended that the cold-bath treatment, *when commenced early, and carried out systematically*, tended to abort the disease, to minimise the sequelæ, to hasten recovery, and to lower the mortality of typhoid fever. His arguments were chiefly based on 89 personally observed and carefully recorded cases; but they were fortified and contrasted with the published results of other physicians. Dr. Bristowe led on the other side, and stated that after a fair trial he had gradually abandoned the treatment, as not answering the indications which Dr. Coupland had laid down, and, moreover, as being dangerous to life. He said he had been chiefly influenced by two fatal cases of lung collapse, which he attributed directly to the bath. His opinions were not backed, as were Dr. Coupland's, by any statistics; for he preferred general impressions in such matters to statistics, which could be made to show almost anything that was wanted.

It must be conceded with Dr. Myers, however, that the rejection of statistics is tantamount to the rejection of the whole method of inductive philosophy; and that any erroneous views, which may be inferred from statistics, depend less on the figures themselves, than on the bad logic of those who make use of them. This latter statement was abundantly manifest in the varying conclusions which were drawn from Dr. Coupland's tables by subsequent speakers in the debate. Fortunately for the subject, neither Dr. Coupland, nor those who sided with him, relied on the compiled statistics. For both Dr. Broadbent and Dr. Cayley, as physicians to the London Fever Hospital, could speak from a long and varied experience, and could give good reasons for their advocacy of this plan of treatment. It is only just to Dr. Bristowe, who was the only important opponent of the plan, to say that he was quite ready to reconsider his position, and even to go over to the enemy, if they could show that their plan of treatment offered any decided advantages; this we fully expect him to do, after the immense testimony in its favour which was adduced at the Medical Society. If Dr. Bristowe was not quite converted by Dr. Coupland's paper, the remarks of Dr. Broadbent and of Dr. Cayley can hardly fail to make an impression upon him.

We must frankly admit that we were not quite prepared for such an almost complete agreement in professional feeling on this subject. The cold-bath treatment of fever seems, at first sight, somewhat unnatural; it runs counter to some of our most cherished notions;

it goes contrary to popular traditions and popular prejudices. When a person is feverish, says the multitude, keep him warm, keep away cold draughts, lest the fever should be driven to the internal parts, lest exposure of the fevered body should favour "catching cold." It has required much effort and perseverance to show the fallacy of these views, and the natural reluctance to give up one's cherished opinions has cost many a life that might otherwise have been saved. Dr. Coupland acted wisely in collecting statistics as to the causes of death in the fatal cases, and more especially in detailing the exact *post-mortem* appearances in his own seven fatal cases. One remarkable outcome, and its correctness was amply corroborated by other speakers, was to show that pulmonary troubles are considerably lessened by this plan of treatment, these popular traditions notwithstanding. Another outcome was to show that the characteristic—the intestinal—lesions are the most serious, the most to be dreaded, and the least amenable to any form of treatment. Death, however, not infrequently occurs in consequence of other causes, and all the evidence went to show that these accidental consequences are largely and favourably influenced by the cold-bath treatment, while deaths from purely hyper-pyrexial causes are almost abolished. Dr. Cayley objected to the plan being condemned on theoretical grounds, or by those who had only tried it in a half-hearted way, and in this we cordially agree. To say that the blood is all driven from the surface to the internal organs by a cold bath is pure assumption, it is not founded on scientific reasoning, it is not corroborated by *post-mortem* examination, and as an argument therefore, it is useless either for or against.

The great question of being able efficiently to carry out the plan in private practice was alluded to by more than one speaker; and to those arguments Dr. Coupland replied by reading extracts from a letter which he had just received from a private practitioner, to the effect that he had found no insurmountable difficulties in carrying it out, and that the friends soon became convinced of the value of the plan, by the increased comfort and well-being of the patient. As to the trouble it entails, we venture to think that in so vital a matter as this, trouble will not be considered by the practitioner who has any regard for his patient; on the contrary, we think he will be glad to know, on such good authority, of a powerful and additional means for treating cases which are always full of anxiety, and often, notwithstanding great care, fatal.

PUBLIC OPINION AND EXPERIMENTAL PHYSIOLOGY.

II.

Second-hand opinions have their value and their drawbacks. In the present time of widespread knowledge and rapid progress, it is impossible for anyone to make himself fully acquainted with all the details, all the relations of the successive steps, by which results are being achieved, facts marshalled, and conclusions arrived at by the workers in the various departments of modern science. A lifetime is too brief to allow of complete mastery being gained in any one of them, and hence it follows that he who would keep pace with the times in anything outside of his own particular path in life must be content to accept and rely upon the *ex cathedrâ dicta* of recognised authorities, in the same spirit as he accepts the opinion of his lawyer—because he is specially qualified to form one on the case; and as he relies upon the integrity of his bankers—because they have established, and continue to deserve, their reputation amongst those capable of estimating it. No one can reasonably object to opinions being thus adopted; the only proviso being, that he who acts upon the conclusions formulated by others shall take all necessary care to accept only the specially expressed opinions of those whose recognised knowledge, judgment, and experience of the subject entitle them to speak with authority. The case is otherwise when a man accepts the opinions of others because they coincide with his own mental leanings or desires; because they are dazzling or seductive, or flattering to his self-love; or, again, because they are reiterated with persistent vehemence—much like the prospectuses of bogus companies, sown broad-cast, with taking titles and promises of enormous dividends. It is worse when, fascinated by such appeals to his passion or his prejudice, he refuses to hear those who speak on the other side—more calmly it may be, but with all the weight of special knowledge and experience—and declines to make any effort to judge as to their respective claims on his attention. And, perhaps, it is worst of all when he accepts as the outcome of his own deliberate and unbiassed investigation of the subject, the involuntary repetition of acquired and inherited conclusions, *because they coincide with* his own mental tendencies, and are in accord with the opinion of other humane and respectable people.

In England the majority of working physiologists hold medical degrees, and many of them hold, or have held, important medical appointments. In the opinion of the laity, the twenty thousand medical men in the kingdom are all physiologists, and their several opinions on the vexed question of vivisection are all of practically equal weight. But the intelligent layman does not go to a country attorney for an opinion on a difficult case of Chancery practice; nor does he even ask an obstetrician to operate on him for cataract. From amongst all the registered members of the profession there might perhaps be gathered an absolutely considerable number of those opposed to vivisection; relatively to the whole, that number would be but small; and the ratio of opponents to supporters becomes smaller still, if we select for classification in this way, those whose knowledge, both of their profession and of the subject now under consideration, is specially noteworthy and most widely recognised. In estimating the importance of vivisection as a method of experimental research and its benefits, actual and potential, in relation to medicine and surgery, the opinion of those whose life-long work and experience have embraced both fields of observation, must be admitted to have a weight unattainable by others. Now, the opinion of the leaders of the profession—that is, of those who specially possess the double qualification just alluded to—is practically unanimous as to the real value and the great importance of vivisection. It is because of this—because this practically unanimous

expression of opinion comes from those who are recognised as being the men best qualified to judge the question in all its bearings—that the great mass of the profession at large—men, that is, whose duties and position do not allow them the means, and time, and opportunities to work out the details of the problem for themselves—accept the result, and are justified in doing so. Briefly, the case stands somewhat thus: The leaders of the medical profession, as honourable and learned men, highly skilled, both in the exercise of their calling and in their knowledge of practical physiology, are best qualified to judge as to whether vivisection is justifiable by reason of its conferring upon humanity at large boons which are, out of all proportion, in excess of the suffering which is entailed by its practice upon animals. The members of the medical profession generally are those best able to estimate the qualifications and the integrity of its leaders. The profession, as a body, accepts the conclusions arrived at by its leaders; and the general public, if it be too ignorant or too lazy to honestly work out the question for itself, might surely do worse than adopt the opinion which has been formed with such painstaking and deliberate care, and which is fortified by such credentials.

We are not now concerned with the vindication of vivisection, rather with the position which a great body of laymen allows itself to assume with regard to this question. We complain that so many permit themselves to drift into the attitude of violent, or at least decided, partisans, without having taken any conscientious pains to sift and weigh either their own arguments or those of their adversaries. If people at large could be induced to take the trouble of fairly judging for themselves, and if those who really cannot take it would accept only the views of men who have shown themselves possessed of the qualities requisite for deciding such a question, the profession would wait patiently and contentedly for the result. But the fact is that, while they will bow to the general consensus of the ablest theological or legal authorities on difficult questions of theology or law, the public seem unable to realise that physiologists, who devote their life and energies to their own special work, are at least entitled to a respectful hearing, when they state the methods which they have found most satisfactory, and point out the practical bearing of the results that have been already achieved. There are those who profess to have found no difficulty in realising a state of things in which two and two make five; under similar conditions we can imagine a man whose knowledge, experience, research, scientific caution, and judgment, were equal to those possessed by the greatest and most able of his opponents, and who, nevertheless, had reached the deliberate conclusion that under no circumstances was any form of vivisection either justifiable or useful. We might differ from him in his opinion, but we should honour such a man none the less; feeling that truth would suffer no careless wrong at his hands, and that he would not lightly speak evil of any one of her sincere disciples. But we would point out how easy it is for many men of noble heart and good intentions to clothe themselves with a fair show of tender tropes, and indisputably moral maxims, all neatly pieced together, and finished with a broad phylactery of virtuous phrases, and yet to hide within it all an incarnate selfishness—a selfishness that will not even take the trouble to find out whether that fair-seeming garment is alike on both sides. This state of things bears with peculiar hardship upon the general practitioner. In modern society he often owes no inconsiderable portion of the status which is accorded him to a reputation for something like encyclopædic knowledge. Upon all the more important scientific questions of the day he is assumed to entertain settled and definite opinions. He is, as we have already hinted, generally branded as a decided advocate of vivisection, and he is consequently regarded as fair game by all who chance to hold the contrary opinion. Now this is a very annoying position for such a man. If he be the intelligent and conscientious student, which we assume he is, he has probably, after long and patient consideration, formed his own conclusions on the subject, and has accepted the opinion expressed by those whom he knows to be specially qualified to give judgment in the matter; and he believes, let us say, that the practice of vivisection by men possessing the requisite acquirements, and carried on under such supervision as, while it shall not trammel the search for truth, will prevent all possibility of abuse, is a method of scientific investigation which is justifiable because it is useful, because it has already proved the means of gaining valuable boons for the human race—and for animals as well—and promises to continue to do so in the future; or possibly he holds the question still *sub judice*. But in neither case is he anxious to discuss the matter at the dinner table; to be involved in an endless string of explanations and discursive arguments with the philozooic lady whose knowledge of the subject is expressed, with the vague but witching tautology of her sex, in the phrase "Vivisection of a live dog;" and, above all, he does not want to "talk shop." So that when the enemy opens fire, he is tempted to reply "My dear sir," or "madam," as the case may be, and too often it is the latter—"we shall both, I trust, continue to be polite, but upon a matter like this we must also be precise. If I, understanding hardly a a note of music, should venture to criticise, say, the construction of a fugue of Bach, you would not consider my opinion entitled to acceptance, and would probably regard it as scarcely worth the trouble of refuting. I am not acquainted with the extent of your scientific acquirements, particularly in those branches of anatomy and physiology which are germane to the subject; if your knowledge is greater than my own small share, I will willingly learn of you; on the other hand, I will undertake, upon certain conditions, to coach you in these subjects, until we are able to meet on level ground, and there exchange opinions to our mutual edification and enlightenment. But if we begin by attempting to discuss the question from different levels, it can only end in one of us pelting the other with arguments, which will have no effect, because their true value will not be understood." And we doubt whether, under the circumstances, he could say anything more sensible.*

* Since this article was in type, the writer has had an opportunity of reading "Physiological Cruelty." It is a little book which can be heartily recommended as a calm, dispassionate, and able exposition of both sides of the question, devoid of technicalties, and quite within the comprehension of any intelligent person.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 22ND, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

Thrombosis of Inferior Vena Cava.

MR. MANSELL MOULLIN read a paper on this subject, of which the following is an abstract; the patient being shown as a living specimen.

The patient was a man, aged 35, who was admitted into the London Hospital in August, 1883, for varicose veins and ulceration of the left lower extremity. He was employed as a paper-hanger; had been a trumpeter in the army, but had never had syphilis. There was no history of gout. A year and nine months before admission he fell down a staircase on to his back, cutting his right leg severely, and falling with his loins across the hand-rail. From the effects of this accident he was confined to bed for five weeks, his right leg becoming much swollen. While in bed, three weeks after his fall, he noticed that the veins in the lower part of the abdomen were enlarged, and from that time they have gone on gradually increasing in size and spreading in extent up to the present time. There does not appear to have been at any time either general anasarca or hæmaturia, judging from the statements made by himself and his friends. On admission, it was noticed at once that the abdomen was covered with great clusters of tortuous veins, which might be divided into three main groups—two on the left side, the one having its origin in Scarpa's triangle, the other just above the crest of the ilium; and the third on the right, behind, some four inches to the right of the vertebral column; and from these main groups great coils of enormously distended veins stretched upwards, gradually diminishing in size as they reached the thorax and could pour their contents into the superior epigastric, intercostals, and long thoracic veins. The right epigastric was but slightly enlarged in comparison, but in this as in all the rest the current was upwards in direction. The left limb was so swollen as only to be lifted with difficulty; the right, six inches less in circumference, was almost normal. In the abdomen was a large ill-defined mass lying in front of the vertebral column, most prominent opposite the umbilicus, and running down to the right of this a line along which pulsation and a systolic thrill and bruit could easily be ascertained. Besides this, in the large left lumbar cluster were a continuous thrill and an exceedingly loud bruit. There were no signs of aneurysm, the pulsation in the abdomen being distinctly not expansile; the lungs were emphysematous; the heart slightly enlarged and the aorta dilated; there were no hæmorrhoids, no varicocele to any extent, and no albuminuria. The diagnosis made was that of thrombosis of the inferior vena cava, with a clot extending down through the left iliacs to the femoral on that side, the ill-defined tumour in the abdomen being the plugged inferior cava, with swollen and œdematous tissue round it, the line of pulsation corresponding to some large abdominal vessel, probably the superior mesenteric displaced to one side. The thrombus could never have extended above the renal veins, but there is no evidence to show whether it originated in a small trunk and spread on till it involved the cava, ceasing where the renal veins poured in a large current, or started in the cava itself. There is, however, little doubt, judging from the time of its occurrence that it must be directly connected with the accident. Reference was made to a case published by Robin, in which violent exertion, while in a stooping position, produced the same result, and to other cases, which tended to show that complete obstruction of the inferior cava by tumours, or otherwise, need not of itself cause appreciable enlargement of the external veins or much œdema.

The PRESIDENT suggested that the case should be again brought forward to the Society at some future time, when further changes had taken place.

Charcot's Joint Disease attacking the right Elbow and Foot.

By Mr. R. CLEMENT LUCAS.—The patient was a man, aged 39, who came under notice last autumn, and was at that time exhibited at the Society. His father died of heavy drinking and consumption. His mother is still living, but suffering from dropsy and asthma. He is one of nine children, seven of whom are living. One brother was a cripple from right-side paralysis from birth, but lived to be 40. He denies having had syphilis, and there is no history of fits or insanity in the family. He has been much exposed, as a hawker, to wet and cold, and has drunk freely. About four or five years ago he became subject to rheumatic pains which shot through him. He has had neither girdle-pains nor gastric crises. For twelve or eighteen months he has had occasional numbness in his hands, especially the right, and has found a difficulty in buttoning his collar and in walking in the dark. Eight or nine months ago he had an attack of double vision, which lasted about a week, and then passed off. He occasionally felt giddy when starting to work in the morning, but was unconscious of any decline or defect in walking. About two years ago his right elbow became enlarged, but not very painful. He sought advice, and was treated with blue ointment. He has continued to work with it ever since. A few weeks before being seen, his right foot became somewhat suddenly enlarged, red and painful, and it was on this account that he came under treatment. The swelling extended from the malleoli to the bases of the metatarsal bones, and occupied the dorsum and sides of the tarsus. It was neither œdematous nor tender, but he suffered from aching pain beneath the head of the astragalus, especially after walking. The right elbow-joint presented a remarkable deformity. On the back of the ulna, two inches from the tip of the olecranon, was a rounded projection, about the size of half a Tangerine orange, two inches in diameter, and bony at the base. Between the head of the radius and the olecranon was another projection, sharp, prominent, and bony, apparently growing from the radius, and another prominence continuous with this between the head of the radius and the external condyle. These latter projections absolutely prevented all pronation and supination. A small outgrowth sprang from the inner side of olecranon, and projected beneath the internal condyle. In front of the joint, just external to the tendon of the biceps, was a rounded swelling an inch and a half in diameter, covered by muscles. Flexion of the elbow could be carried to the normal limit, but extension was arrested at an angle of 150°. The joint was free from pain. It measured about two and a half inches more in circumference than the other. The signs of locomotor ataxy were as follows:—He was unsteady when his eyes were closed; if told to touch his nose with his eyes shut, he often missed the mark; he had difficulty in walking in the dark and in buttoning his shirt-collar. His pupils were not contracted, but unequal, and insensitive to light; patellar reflexes were entirely absent. Mr. Lucas alluded to the liability there was for these cases to be mistaken for

osteo-arthritis. He thought it rare for the joint affection to be in advance of the ordinary symptoms of ataxy. More generally, the paralytic symptoms had existed some time before the joints suffered. Surgeons had been blamed for not recognising the disease. The symptoms, he thought, were sufficiently distinct, but the disease was not common among surgical out-patients.

Dr. BUZZARD thought that Mr. Lucas's case formed an apt illustration of the statement that the rarity of such cases may be explained by the failure of surgeons to recognise them as distinct forms of joint disease. Mr. Lucas himself had not been able to diagnose the case positively when he first saw it. No doubt the chief difficulty lay in the complete absence of ataxia which characterised so many of the cases. The case shown by himself that evening was one of short duration, in which ataxia was confined to the upper limbs; the patient, who was a carpenter, had first become aware of his illness from inability to use his saw in a straight line, or to strike accurate blows with his hammer. All other symptoms were present, the irresponsive pupil, the paresis of ocular movement, shooting pains and numbness, but the gait was not ataxic. The patient had been treated at two hospitals in London before applying for relief at Queen Square, and the joint affection had been presumably unrecognised as Charcot's disease. In the joint itself there was no evidence of any but the synovial tissues having become destroyed, and in this the case contrasted with that described by Mr. Lucas, in which there was distinct overgrowth of bone. It was usual for the ligaments to become affected early, extreme laxity of the joints being produced, which, in the case of the ankle, rendered the foot constantly liable to be thrown on its side in walking. Dr. Buzzard reiterated his belief in the connection between the joint changes, and some affection of the medulla oblongata. This localisation was arrived at, partly by exclusion, since almost all the other parts of the spinal cord might be diseased without giving rise to any such changes; and partly by the frequent association of gastric, laryngeal and intestinal crises with the progress of the disease. He further hinted at the possibility of the existence of some centre influencing the nutrition of the bony skeleton.

Dr. HALE WHITE referred to a specimen recently shown by him at the Pathological Society, taken from a dissecting-room subject, and stated that his own diagnosis of the nature of the changes had been fully confirmed by Professor Charcot, who had examined the specimen and pronounced it typical. Having recently had opportunities of seeing several living specimens of the disease, Dr. White was impressed with the difficulty of distinguishing between the various forms of arthritis, and quoted some remarks of Dr. Weir Mitchell, and of Professor Charcot to the same effect.

Dr. ALTHAUS thought that we were not as yet in possession of a sufficiently large pathological experience of the disease to warrant any theory as to its nature. In his own opinion, the cause should rather be sought in some lesion of peripheral nerves than in any lesion of centres. The symptoms of anæsthesia and analgesia, when present, and the trophic lesions, as evinced by herpes or other skin changes, all pointed in the same direction.

Dr. BUZZARD mentioned that in many cases where the peripheral nerves had been examined, they had been found quite healthy.

Dr. MOXON, in response to the President's invitation, stated that he was himself inclined to be sceptical as to the part played by the nervous system in producing this form of arthritis. Although he must look with respect upon the convictions of Drs. Charcot, Buzzard, and others, still his own experience of many cases of locomotor ataxy, and very few of Charcot's disease had led him to look upon the coincidence of arthritis with spinal cord disease as only an occasional one. Before assuming that a definite connection exists between the two, we require a far greater amount of evidence, and especially statistical evidence, to show the frequency of their simultaneous occurrence. If, as suggested by Dr. Buzzard, there was a controlling lesion for the nutrition of the skeleton, it became difficult to understand why one joint alone should be marked out for destruction. With respect to gastric crises, he had been often struck with the frequency of cases amongst over-worked patients, school-teachers and others, presenting symptoms not distinguishable from those described by Charcot, but certainly not associated with any definite form of brain or spinal cord disease. He was inclined to think that the over-observation of ataxic persons sometimes led to inaccurate conclusions, many symptoms common alike to the ataxic and the non-ataxic, being specially noted and recorded as "epiphenomena," obtained an importance which they did not deserve.

The PRESIDENT expressed a belief that, with more complete statistics, it might be found that the joint affection at times occurred in association with cerebral disease.

Mr. CLEMENT LUCAS, in reply, explained that the diagnosis of his case had been rendered difficult by the peculiarities of the changes in the joint, but, from the first, the case was unlike any well-known joint affection, from the peculiar form of the swelling of the ankle and the marked absence of pain. He was himself quite convinced of the distinction between these cases and those of any other form of arthritis.

Dislocation of one of the Semi-lunar Fibro-Cartilages of the Knee-joint.

Mr. NOBLE SMITH communicated this case, with remarks, as follows:—The left knee was first injured sixteen years ago (1867) by a fall. Great pain was felt, and while being carried home the patient was upset, the knee again twisted, and the intense pain was immediately relieved. This history was considered as characteristic of displacement of one of the cartilages. The patient was unable to move for many months, rest and local applications being prescribed. After nine months walking was commenced again. The subsequent history was that of repeated injury from trivial causes, and a continued state of weakness of the joint, with discomfort or pain during movement. The same kind of treatment was always prescribed, and in the course of weeks or months after each accident the patient would gradually recover sufficiently to be able to get about again, but always with difficulty and in danger. On November 11th, 1882, this patient was first seen by me. A stiff knee-cap was being worn, and any locomotion was extremely difficult. *Rest as complete as possible* had lately been again recommended, and the advice was being carefully followed. The knee was slightly flexed, and could not be moved without pain being produced. The internal cartilage of the left knee was felt to project slightly beyond the upper border of the tibia. Upon pressure being applied to this protrusion while the leg was flexed and extended repeatedly, the cartilage was felt to slip back, after which the patient walked round the room perfectly naturally, and felt a relief which had only once been experienced since the first occurrence of the accident A pad was strapped over the place where the cartilage had protruded. During the next few weeks there was a tendency to relapse, but by perseverance with the treatment, the joint was gradually worked into a natural condition. An apparatus was made, which, while it permitted flexion and extension of the leg, prevented lateral motion and twisting. Walking exercise was recommended from the first, provided no pain was felt. This patient has remained quite well up to the present time, December, 1883. Several other similar cases had been met with by him. Great care in forming a diagnosis was necessary. This displacement, which was first described and the appropriate treatment devised by Mr. Hey, of Leeds, was to be distinguished from inflammatory disorders and the presence of loose cartilages. The variety of the conditions which might occur were described by Hamilton. Bounet, of Lyons, experimented upon a dead body, and produced displacement of the inner cartilage, and sub-

sequently reduced the dislocation by extension. The experiment was frequently repeated with a similar result.

Mr. Howard Marsh disclaimed the discovery of the special apparatus, attributed to him by Mr. Noble Smith, the credit belonging entirely to Sir James Paget. Referring briefly to the subject of the paper, he pointed out the greater liability of the external semi-lunar cartilages to displacement. One common cause for the lesion was to be found in football, when a vigorous kicking movement was made without striking the ball fairly, and so failing to meet with the expected resistance. In one such case a small body had been removed from the knee-joint, which proved to be a piece of the semi-lunar cartilage completely torn off. He would insist upon the value of mechanical treatment in these cases, and he exhibited to the Society some photographs of apparatus successfully employed at St. Bartholomew's Hospital.

Mr. Tyson (Folkestone) related a case under his own care, in which there had been displacement of the internal semi-lunar cartilage for ten years, frequently recurring, and often giving rise to great difficulty in reduction. The patient was only safe in the perfectly straight position. The best means of reduction had been found in abduction and rotation outwards, as in sitting cross-legged.

Mr. Lucas mentioned that in all the cases that he had met with, the external semi-lunar cartilage had been displaced, and to the outer side. One case had made a good recovery in plaster of Paris.

Mr. Noble Smith, in reply, observed that in his own experience of cases the internal cartilage was more usually displaced, and generally as the result of some sudden movement. He did not agree with the treatment by complete rest, but advocated movement in a properly constructed apparatus.

Pulmonary Regurgitation.

The President drew attention to the living specimen exhibited by Dr. Fowler, and suggested that a small committee be appointed to investigate and report upon the case. He nominated Drs. Moxon, Douglas Powell, and F. Taylor to co-operate with Dr. Fowler for the purpose.

The following specimens were also exhibited:—

Charcot's joint disease, by Dr. Buzzard.

Rheumatic nodules on the finger, by Mr. Godlee.

Congenital hypertrophy of leg, by Mr. C. J. Symonds.

Excision of the patella, by Mr. Lucas.

Anomalous affection of certain bones and joints, by Mr. W. Morrant Baker.

Continued profuse sweating of upper half of body, by Dr. Stephen Mackenzie.

Obstruction of vena cava, by Mr. Mansell Moullin.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 26th, 1884.

Richard Barwell, F.R.C.S., Vice-President, in the Chair.

At the ordinary meeting on Tuesday last, two papers were read and discussed. The following are the abstracts and discussions:—

Neurectomy of the Second Division of the Fifth Nerve.

By Thomas F. Chavasse, M.D., C.M., Surgeon to the General Hospital, Birmingham. — *Case* 1. — A man, aged 50. Intractable neuralgic pains extending over a period of fourteen years. Talking and movements of the jaws gave rise to painful paroxysms, which were exaggerated in cold, wet weather. The pain always commenced in the situation of the right upper molar teeth; thence it passed upwards to the cheek, to the temporal fossa and parts around the orbit, and produced a profuse flow of tears. He had endeavoured at intervals to follow his occupation as a labourer, but for six months before admission to the General Hospital, Birmingham, had been quite incapacitated. October 3rd, 1882, Carnochan's operation, modified as to the skin incisions, was performed, and by removing portions of the anterior and posterior walls of the antrum by trephines, the infra-orbital nerve was traced back into the spheno-maxillary fossa, and removed just anterior to the foramen rotundum, together with Meckel's ganglion. No constitutional symptoms followed the operation, and by October 16th the wound was healed. The patient has continued to be free from pain ever since, and has resumed his old occupation. *Case* 2.—Man, aged 47, had suffered from intractable neuralgia for eleven years. Pain excited by speaking, masticating, and walking. Always commenced in the situation of the upper molar teeth of the left side, and latterly was so severe that relief could only be obtained by lying quietly in bed. February 9th, 1883, similar operation as in previous case. Cavity of antrum was very deep, and the hæmorrhage profuse, so that, although the posterior dental nerves were seen and divided, Meckel's ganglion was not removed with the nerve. The wound healed in a fortnight, and the patient was able to take solid food. The immediate relief from pain was not so complete as in the case in which the ganglion was taken away, but the patient is now in full health. The opinions of Carnochan and Billroth were quoted as being favourable to the removal of the ganglion when possible. In both cases the writer thought that the more radical operation of neurectomy held out better hopes of obtaining relief than either neurotomy or nerve stretching. Statistics showed that after this operation relief was generally obtained for longer or shorter periods, and no fatal result had been recorded. Attention was directed to the methods of operation introduced by Professor Lücke, of Strassburg, and by Professor Lössen. Cases were quoted in which Braun had successfully operated by the plan of the latter, and an instance was given in which Reyher, of St. Petersburg, had tied the common carotid artery before proceeding to the other steps of the operation.

Mr. Walsham said that he had had some considerable experience in the operative treatment of these cases of so-called epileptiform neuralgia or incurable tic, and had within the last six weeks performed Carnochan's operation for the removal of Meckel's ganglion. The patient came under his care at St. Bartholomew's Hospital, about the end of last December. He had suffered for upwards of fourteen years from epileptiform neuralgia of the most intractable character. He had formerly been a patient under Dr. Buzzard and Mr. Adams, and had had the supra-orbital and infra-orbital nerves stretched on several occasions. He had at first received some relief from these operations, but latterly the neuralgia had returned, if possible, in a more severe form than ever. As his (Mr. Walsham's) cases which he had treated by nerve-stretching had been all attended with success, he thought it right to again stretch the supra and infra-orbital nerves. He accordingly cut down upon them, but found that the tissues were so matted together as the result of the previous operations, that he was unable to isolate either nerve. He accordingly passed an aneurism needle under the cicatricial tissue, at the situations where he conceived the nerves ought to lie, and endeavoured to stretch it, but he could not convince himself that it yielded to any appreciable extent. Suffice it to say, that upon the patient recovering from the chloroform, he had a very severe paroxysm, and in short, received no benefit whatever. On more closely questioning the patient, it was found that, although he said the pain began in his cheek, and darted upwards over the head, it was really located in the gums, in the region of the molar teeth, which had previously been extracted, *i.e.*, in the posterior dental nerves, and shot upwards towards the back of the orbit. Mr. Walsham then proposed the removal of Meckel's ganglion—an operation to which the patient readily consented, provided that he could be promised a fair prospect of relief. Mr. Walsham had

accordingly written to Mr. Chavasse, who had very courteously had not only informed him of the success of his case, but had also given him several valuable hints which proved of much use subsequently. The operation was performed on January 17th, very nearly in the way described by Mr. Chavasse. The only modifications to which Mr. Walsham thought it worth while to call the attention of the Society, were the following:—1. That, instead of trefining the posterior wall of the antrum before cutting away the lower wall of the infra-orbital canal, as had been done by Mr. Chavasse, he first removed the lower wall of this canal, so that should hæmorrhage have ensued on trefining the posterior wall of the antrum, as in Mr. Chavasse's cases, this part of the operation, viz., removal of the lower wall of the canal, might be completed before the parts became obscured by blood. The opening of the canal was the most tedious part of the operation. None of the forceps at command were suitable for the purpose. He had, therefore, on the chance of having a second case, had a forceps made by Messrs. Arnold. With these he could accomplish in two or three minutes, what it had taken him fully ten to do without them. 2. He advised, that in removing the posterior wall of the antrum, the greatest care should be taken not to injure the periosteum lining the spheno-maxillary fossa. If this were done, there need be no fear of hæmorrhage, as the vessels lay on the fossa side of the periosteum. He had avoided injuring the periosteum, by cutting through the posterior wall of the antrum with the trefine only at one spot, and then having separated the periosteum from the bone, had fully exposed the fossa by use of bone scissors. There was no hæmorrhage during this part of the operation. 3. The whole length of the superior maxillary nerve being exposed, it was seized with forceps, and stretched with a force probably sufficient to make a distinct impression upon the Gasserian ganglion, if not on the trunk of the nerve beyond. It was then divided immediately external to the foramen rotundum, and removed along with the ganglion, the branches of which had been previously divided. Mr. Chavasse, in his letter, had advised the use of reflected light. The operation was performed with the laryngoscopic mirror on the forehead; with its aid the antrum, though deep, was kept fully illuminated, and the various steps of the operation could be followed with exactitude. Mr. Walsham strongly recommended its use to any future operator. The patient made an excellent recovery. He slept well the night afterwards, better than he had done for months before. He had no constitutional symptoms. He was up and about the wards in a few days, and the wound healed kindly, and he was now at the Convalescent Home at Highgate. He had had no pain since the operation. Mr. Chavasse had suggested that neurectomy and removal of the ganglion was a better operation than nerve stretching. Mr. Walsham ventured to think that both were excellent in appropriate cases. He had now had four cases of the most obstinate epileptiform neuralgia in which he had performed nerve stretching. In the first he had stretched the infra-orbital only; in the second, the auriculo-temporal and inferior dental from within the mouth; in the third, the inferior dental only from within the mouth; in the fourth, the infra-orbital and inferior dental. The first case was done in the early part of 1879. There had been no return of pain when last heard of a year ago. The second and third were stretched last May. The fourth last November. In none of these had there been any return of the neuralgia. In all, the nerves had been stretched from their distal as well as from their proximal ends. Before the fifth case came under notice, Mr. Walsham had hoped that we had at length found in nerve stretching an effectual remedy for this distressing affection. But should this fifth case be regarded as a failure? On closer enquiry it was found that the pain, although said to be in the cheek, really began in the gums. Was it not possible, therefore, that the posterior dental branches had been at fault throughout, and that both Dr. Buzzard and Mr. Adams, as Mr. Walsham confessed himself to have been, were misled by the patient referring the pain to his cheek? The success attending Mr. Chavasse's cases was most encouraging. As to the result of his own case, it was of course too early to speak, but he hoped as the operation for the removal of Meckel's ganglion might still be said to be on its trial, that on some future occasion, when sufficient time should have elapsed for forming a reliable judgment as to the permanency or not of the relief, to briefly publish the notes and subsequent history of the case.

Mr. Bowlby said that an examination of the deepest part of the excised nerve showed a considerable increase of fibrous tissues, arranged irregularly and not after the manner of the fibres of the normal perineurium; this fibrous tissue was probably inflammatory in its origin. The nerve bundles were compressed, the nerve tubules, in some places, were entirely degenerated; in others, the white substance of Schwann was much diminished, and the nuclei of the sheath multiplied. It is doubtful whether this condition was originally the result of inflammation spreading along the dental nerves, and thus causing the neuralgic pains, or whether it was due to the operations that had been practised on the infra-orbital nerve at various times. Further examination in other cases would be required, in order to clear up this point.

Mr. Morris thought the Society was indebted to Mr. Chavasse, not only for bringing forward this operation, but also for cases, sufficiently long after the operation, whereon to base an opinion as to its real value. The future, however, could alone decide whether the cases were really cured. The same might be said of neurectomy and neurotomy: the good results being usually very temporary and very fleeting. Trousseau had stated that, in his own experience, a permanent success had never been attained. Mr. Morris reviewed the literature of nerve stretching, and showed how little had been attained by this plan in tetanus; he argued that the successful results were quite as much due to drug treatment, which had been simultaneously employed. These intractable neuralgia cases frequently had periods of remission irrespective of treatment. The transference and reflection of pain along branches which were not themselves diseased, he said, was an argument against such operations being successful. Attention was directed also to the vast importance of removing all possible sources of peripheral irritation, such as carious teeth, and alveoli, cicatricial tissue, &c.; good could often be obtained, he thought, by a judicious use of morphia or other sedatives.

Mr. Treves thought that a permanent cure was not very likely to be obtained, and all that could be expected was a longer or shorter period of relief.

Dr. Buzzard had looked up his own notes of the case to which Mr. Walsham had referred, and found that they justified the observation which he (Mr. Walsham) had made as to the probable affection of the posterior dental branches as the seat of the lesion. He found that the man had suffered greatly with pain in the roof of the mouth, which was a very unusual situation in cases of trigeminal neuralgia. Would such an operation as the one described have any effect, he asked, in curing pain along the distribution of the inferior dental. The proceeding appeared to him, as a physician, a rather formidable one; but he could quite understand a patient, the subject of such agonising pain as was experienced in these cases, being glad to submit to anything that offered even only a chance of relief.

Mr. Walter Pye had had two cases of nerve stretching, and agreed that one could never feel quite sure that a cure had been effected. His own cases had had complete relief for twelve or fifteen months, and then began to suffer again.

Mr. Chavasse replied to the remarks of the various speakers, agreeing for the most part with their observations.

A Case of Amputation of the Arm and Scapula for Ossifying Sarcoma—Recovery.

By Christopher Heath, F.R.C.S. — The patient, a lad of sixteen, was admitted into University College Hospital July 2nd, 1883, with a large sarcomatous tumour of the upper arm and shoulder. Two years before he had noticed that the upper end of the right humerus was slightly larger than that on the other side. It had gradually increased in size, but much more rapidly during the last six months. In January, 1883, the

patient was in St. George's Hospital, where Mr. Holmes proposed to amputate, but the patient declined, and went home to Cornwall. The shoulder was obscured by a roughly pyramidal swelling, the base being at the axillary border of the scapula, and the apex at the middle of the humerus. The posterior edge of the growth was rounded, and its outer surface was divided by a depression into a lower, prominently rounded half, and an upper, more flattened mass. The growth involved the scapula, and completely fixed the shoulder-joint, but the whole mass with the scapula moved freely over the thorax. The skin was not broken, but was tight, and cracked over the posterior part of the growth, where it was of a dark-red colour. The tumour throughout was hard, and bossed here and there. Its circumference at the most prominent point was 24 inches. The glands in the axilla and neck were not enlarged. The chest and abdomen were healthy. On July 4th, 1883, Mr. Heath made an oval incision as for amputating at the shoulder, and, having stripped back the skin, cut upon the position of the shoulder-joint, and removed the arm, necessarily leaving a large mass of growth attached to the scapula. The axillary artery was tied with hemp ligature, and the neck of the scapula, with the glenoid cavity and inferior border of the bone, was sawn off. Mr. Heath next removed the scapula, first dividing the clavicle at its outer third, and then isolating the posterior border of the scapula. The wound was dressed on second and fourth days, and the patient made an uninterruptedly good recovery. The highest temperature was 104° on the eighth day. He was discharged on August 30th, being only 59 days in hospital. The part removed consisted of a large mass of ossifying sarcoma surrounding the upper end of the humerus, and firmly united to the scapula and clavicle, the growth extending down the humerus to the junction of the upper and middle thirds. The scapula itself was but slightly affected, the growth extending backwards for a short distance around the neck of the bone, and down the axillary border. The growth extended into the subscapularis, teres minor, and, slightly, the infra-spinatus muscles. The cut end of the clavicle was healthy. Microscopically, the growth was found to be a sarcoma of mixed small cells and oval corpuscles, with extensive ossification, in the shape of bony spicules, running through the tumour. In none of the spicules were Haversian canals to be seen, but lacunæ were normally developed.

The patient was shown.

Micro-Organisms.

Dr. Heneage Gibbes showed, in the ante-room, a number of the different forms of putrefactive bacteria :—A section of diphtheritic membrane, showing two forms of micrococci, one large in groups, the other much smaller in masses. A section of human spleen from a case of tuberculosis, showing large micrococci in groups; similar organisms were found in the lungs and liver of this case. Sections from the livers of two pigs, which had died of the purples or "red soldier." These were sent to Dr. Gibbes by Mr. Crooke, of the Leeds Fever Hospital. Sections of these livers were full of bacteria, but the forms were quite different in each. In one liver the bacteria consisted of short rods not joined together, in the other they were very long and slender. Section of kidney from one of these cases showed the vessels full of a form quite different to those in the liver. Stool from a case of infantile diarrhœa, showing organisms very similar to those in the specimen of rice-water stools, sent by Professor Straus. Very large organisms from the stomach in a case of carcinoma of pylorus—spirilla, vibriones, various forms of bacteria in chains, micrococci from putrifying animal matter in water. Section of mesenteric gland, showing the so-called typhoid bacillus. Human sputum from cases of tuberculosis; one specimen showed different forms of bacteria in the field of the microscope, and this with an oil immersion lens magnifying 600 diameters. These specimens were shown with Messrs. R. and J. Becks' new pathological microscope, which they have made from Dr. Gibbes' designs.

The Secretary read the report on the cholera germs, which is printed in another part of the journal.

The Society then adjourned.

HARVEIAN SOCIETY OF LONDON.

Thursday, February 21st, 1884.

George P. Field, M.R.C.S., in the Chair.

Wet-Packing in Scarlatinal Dropsy.

Dr. Day read notes of a case of scarlet fever followed by nephritis, convulsions, and death, temporarily relieved by wet-packing. The patient, a boy, aged seven, was first seen by him on October 1st, 1883, when he was covered with a bright scarlet rash, having been apparently in his usual health the previous day. The throat, cervical glands, and kidneys, were severely affected, and albumen and blood appeared in the urine. On the 18th of October scarlatinal dropsy set in, which almost disappeared under wet-packing. On the 20th there was diarrhœa and vomiting. On the 23rd the patient was seized with convulsions, and died. Attention was drawn to the extreme brightness of the rash which was distinct on the tenth day of eruption, and to the dropsy which the author did not consider usual when the skin was so much involved. He thought the wet-pack was of great advantage in exciting free cutaneous action, and in relieving the anasarca. He also alluded to cases of scarlatinal dropsy without albuminuria, and quoted several authorities on the subject.

The President, in commenting on the paper, referred to the frequency of suppuration within the tympanum after scarlet fever, and to its treatment by early paracentesis.

Dr. Mahomed called attention to the present rarity of post-scarlatinal dropsy, as compared with former returns; at the Fever Hospital hardly more than two or three cases were recorded in the year. This result he attributed to the early treatment of the nephritis, none being more successful than sharp purging, and leeches to the loins. He bore testimony to the usefulness of Dr. Oliver's test-papers (mercuric iodide) as a ready means of proving conclusively the absence of albumen from any urine.

Dr. Cleveland insisted on the therapeutical value of the perchloride of iron in cases of hæmaturia.

Prognosis in Structural Diseases of the Heart.

Dr. Broadbent read an important paper on Prognosis in Structural Diseases of the Heart, in continuation of the subject of the recent Harveian Lectures, in which prognosis in valvular disease had been mainly considered. The paper dealt with the conditions of "Fatty degeneration of the Heart and of Cardiac Dilatation" in an exhaustive manner, which does not admit of any adequate report being furnished here. It is understood that the paper will be published shortly. An able discussion, in which Dr. Stephen Mackenzie and Dr. Mahomed took part, was followed by a reply by Dr. Broadbent, and the meeting was adjourned.

ABSTRACTS AND EXTRACTS.

THE PRESS ON THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

The *Times* maintains that it is to London that the chief attention of philanthropic reformers must be turned. It is there that the entire problem presents itself in its hardest and most complicated form. If an answer can be found that will suit the case of London, the difficulty will have been in effect solved. That the thing can be done and will be done the *Times* fully believes. The social question involved is too grave and too far-reaching in its consequences for society to dare to

be indifferent about it. The facts, it may be said, lie on the surface open to all eyes. It needs no expert to discover them. It will be the office of the Commission to bring them, as it were, to a single focus, and to present them as they require to be seen if their aggregate importance is to be judged. That the dwellings of the London poor are defective in sanitary appliances is, Lord Salisbury points out, a very small part of the case. Proper drainage and proper water supply can be demanded under the existing law, and if they are not granted it is proof only of a negligence of duty for which publicity may be the sufficient cure. To find house provision for the multitudes who are at present in want of it will be a much more difficult matter. Not among the least of the impediments reformers of the evils have to encounter is the necessity of educating the victims to appreciate the intensity of the wretchedness of the hovels ironically called their homes.

The *Morning Post* believes that there is a fixed resolution that something should be done in the interests of the poorer classes on a scale far exceeding anything previously contemplated. Before, however, any great or comprehensive scheme is formed, it is absolutely essential that materials far more voluminous than those now at our command, shall be collected and turned to account. Hitherto, the object of legislation in respect to the housing of the poor has almost exclusively been to improve their sanitary condition. But the far more comprehensive problem of preventing overcrowding, and enabling the poor to rent tenements which will permit them to live under conditions that do not of necessity foster vice and crime, is still untouched. The task which the Royal Commission must seek to accomplish, will be first to call abundant evidence as to the conditions under which the poor live, and then to recommend to the Legislature, if possible, some means by which those conditions can be considerably ameliorated.

The *Daily Telegraph* says, that what is wanted to be known is the localities in which this overcrowding exists, and how many of those who are crowded together are forced to dwell in these localities. One result of such enquiry would be to ascertain how far the existing evil could be reduced by a development of the facilities afforded by cheap railway trains; another result would be to determine whether larger building operations would be necessary, and, if so, in what districts and at what cost they have to be carried out. Lastly, there remains the difficult question, by whom the work should be paid for.

The *Standard* admits that the appointment of the Royal Commission will cause some delay in the introduction of measures of amelioration; but it is not sure that delay, even in a case of such grave necessity as this, is wholly to be deplored. No one will question either the capacity of the Royal Commissioners for their work, or their sympathy for the class whose interests are concerned in the enquiry. From whatever point of view the Commission is looked at, it must be pronounced to be a strong and eminently representative body, whose decisions will bespeak the confidence of the public.

The *Spectator*, in a very thoughtful article, says that the housing of the poor is exactly the subject for a Royal Commission. It bristles with difficulties, but for the most part they are not difficulties which involve principles. Commissions commonly represent the average good sense of the public, and any doctrine that is very novel and very startling comes in for nothing more than a complimentary reference in the report. The *Spectator* holds that in this matter common sense is a much better adviser than heroic philanthropy. What is most of all wanted is first a large assemblage of facts, and next a separation of the several classes of facts. There is all the difference in the world between the inability to get a decent lodging which comes from absolute poverty, and the inability which comes from relative poverty. A Royal Commission will be able to give full consideration to the points of difference, to trace them to their ultimate causes, and to make recommendations which shall go beyond plausible generalities. The *Spectator* is not quite sure whether the kind of commission it is apparently intended to appoint is in all respects the best.

The *Guardian* says the Royal Commission will have to ascertain why the remedies, which legislation has provided for imperfect sewage, bad repair, and unhealthiness of position with respect to other houses, have been so inefficient. As to the need of investigation into the housing of the poor in villages there can be no question. The only doubt is whether the conditions of the enquiry in town and country are not too distinct to make it profitable to handle them by the same Commission.

The *Scotsman* contends that there are Acts of Parliament enough in existence already; and if they were consistently and peremptorily enforced, there is no doubt that improvement would be more real and more rapid. In short, the state of the case is not that legislation is defective, but that administration has broken down; not that Parliament has been negligent, but that Local Authorities have culpably failed to do their duty. The labours of the Commission may be looked forward to, not with less, but with greater hopefulness, because other influences are at work, from which, more than from direct legislation, improvement may be expected.

SURGERY.

HYDROCELE.—The *New York Medical Journal*, December 22nd, 1883, publishes some observations by Dr. Robert Abbe on this subject. He does not differ from other writers as to the proportionate frequency with which the several forms are met with in practice, but directs attention to some points of interest. The "congenital" and acquired hydroceles of infancy would probably be cured by nature, but parental anxiety often demands some interference; they usually yield readily to mild stimulation (*e.g.*, an "evaporating lotion"—which is, practically, always bound on with the clothing) and to a more nourishing diet or tonic treatment. If of long standing, they commonly yield to puncture; this is best performed by holding "three or four surgical needles side by side between the finger and thumb, and, while making the scrotal sac tense, rapidly repeating the puncture stroke, pricking as many as 30 or 40 points;" the fluid quickly escapes into the cellular tissue, whence it is rapidly absorbed, and some escapes through the skin, aided by gentle squeezing. Aspiration is simple, and, in time, effective; but must usually be frequently repeated. The seton is effective; but, unless removed at just the right time—say after 36 hours—it will set up a disagreeable suppuration of the sac necessitating incisions. In the case of one child, whose hydrocele had been frequently aspirated, a cure took place only after circumcision for phimosis and preputial adhesions, and then rapidly. In young children (six months to two years) the tumour has disappeared under Pot. Iod. gr. 2, t. i. d., given for two or three weeks. In the hydrocele of adults, Dr. Abbe has almost invariably found an induration of the epididymis, either as a hardness of the entire body, or of the globus major or minor alone; this is, of course, only to be noticed after tapping. He has found encysted hydroceles exclusively in old men from 50 to 70 years; he differs from Curling in asserting that in this variety the cure by injection of iodine "is almost certain." As regards curative treatment in adults, he has found iodide of potassium efficient in cases where, after a single tapping, well marked induration of the epididymis was found to exist—although there might be good reasons for negativing syphilis. Injection of the sac with iodine, if rightly used, is a competent curative method in most cases; there is always more or less shock, the pulse falls 20 to 30 beats for a few minutes, there is usually some pallor, and a good deal of pain in the course of the vas deferens. Dr. Abbe would not use this method in a patient with weak heart. The injection of ʒj deliquesced crystals of carbolic acid—the scrotum having been previously well greased—is "probably the best method of the radical cure of hydrocele." It produces no shock, is almost always painless, the pulse does not vary, a more *plastic* inflammation appears to be set up, and after the operation the patient usually continues at his work. Only one man thus treated complained of pain, and he for three minutes said his "testicle felt as if it was in a frying pan." Carbolic acid poisoning has never followed injection. In the course of over 150 cases, representing, perhaps, 500 tappings, the only serious result occurred in the case of an old and intemperate patient, in whom a simple tapping, without injection, was followed by phlegmonous cellulitis and fatal

exhaustion. Dr. Abbe makes no mention of ergot, which, in the form of the liquid extract, has recently been advocated as a painless and efficient fluid for the cure of hydrocele by injection.

"Catheter Fever."—In a recent clinical lecture on urethral and bladder difficulties delivered in the New York Hospital, Dr. R. F. Weir remarks that "this is not an unknown disease at all; surgeons are constantly witnessing such ill effects of the introduction of the catheter . . . . in people who have had trouble with the prostate, and variable, incomplete, retention of urine for a number of years . . . Under the head of cystitis, pyelitis, and 'surgical kidney,' with or without appreciable abscesses, may be grouped clinically the severer symptoms producible by the introduction of an instrument into the bladder of an old or elderly man. This 'catheter fever' is something which every one of you will run against sooner or later, and . . . it is more apt to occur the longer the prostatic trouble has existed. This is a strong reason for teaching elderly men so affected to use the catheter early." On this point his teaching is more emphatic even than Sir H. Thompson's. He urges the necessity of teaching an old man to use the catheter regularly, so soon as difficulty in passing water is recognised. The patient, indeed, will object to what seems to him only a needless annoyance, and "you will find much difficulty in leading your patients to follow your advice; but if you do so, you will anticipate pathological change, and save them a good deal of subsequent trouble." In order to avoid this "catheter fever" in cases of this sort which have continued for several years, or in those where the patient is attacked with retention, Dr. Weir advocates the withdrawal of only half a pint of urine in the first instance, drawing off a little more at each subsequent catheterisation; but it is better still to "let the man pass what water he can in your presence, then introduce the catheter and empty the bladder; but do not leave it in its collapsed condition, rather throw into the bladder a quantity, equal to one-third or one-half of the urine withdrawn, of a solution of carbolic acid (one in 100), or of boric acid (℥ j to a pint), or, best of all, mercuric chloride (one in 5,000)." The quantity thus injected is to be gradually diminished on successive occasions, until the bladder gets used to its contraction. The patient should also be kept to the house for a few days, until tolerance of the instrument is fairly established. "Before using the catheter, pass a carbolic acid or corrosive sublimate solution through it . . . . and, so far as possible, introduce the catheter full of this solution, in order to guard against the entrance of air into the deeper urethra; on withdrawing it, pinch its end, and let it thus come out full of fluid. Use iodoformised oil (gr. v. to ℥j.) to grease it with, rather than carbolised oil, which is inert."

A Simple Operation in Facial Neuralgia.—Under this designation Dr. Heustis, Professor of Surgery in the Medical College of Alabama, describes an operation which he performed on a gentleman above 70, who was in good health in all other respects except that he suffered from severe facial neuralgia, affecting both the infra- and supra-orbital nerves. As the patient had become much weakened by the severity of the pain and his inability to eat his food, it was deemed desirable to render an operation performed upon the infra-orbital as simple as possible, consistently with its efficiency. "Therefore, discarding Carnochan's operation of trephining the antrum, and following up the nerve beneath the orbit and removing it, and Langenbeck's slighter one of dividing the nerve with a tenotome, and drawing it out through the infra-orbital foramen, I merely cut down upon the foramen, and with a fine steel drill, such as dentists use, improvised of piano-wire, drilled out the nerve in its entire length, as far back as the spheromaxillary fissure." The relief obtained was immediate and complete; and had so continued two months after the operation.—*Philadelphia Medical News*, December 8th.

Urethral Injections.—M. Aubert, Surgeon to the Antiquaille, Lyons, observes (*Lyon Médical*, February 10th) that attention is not sufficiently paid to the fact that the urethra is divided by the subpubic sphincter into an anterior and posterior portion; and that by too forcible injection this sphincter is forced, and the injected substance reaching the posterior urethra may thus excite much mischievous action. In fact, it is only under surgical superintendence that the posterior urethra should ever be injected at all. To prevent the mischief, M. Aubert takes a small caoutchouc tube of much less calibre than the urethra, and of from ten to twelve centimetres in length, introduces it into the urethra, and fixes the nozzle of the glass syringe to its free end. The injection is then made, with the orifice of the urethra closed. In this way the medicament is brought into contact with the end of the anterior part of the urethra, and is not impelled with sufficient force to reach the posterior urethra; and as the liquid returns by the side of the tube, the parts around become bathed with it.

GENERAL CORRESPONDENCE.

THE DEBATE ON CHOLERA.

[To the Editor of the Medical Times.]

Sir,—Your contributor, in the note appended to my letter in the *Medical Times and Gazette* of 23rd inst., first admits the error he had fallen into in his comments on "The Debate on Cholera" at the Epidemiological Society, in attributing to me opinions regarding small-pox and scarlatina which are not to be found in my letters in the papers of 4th and 11th August, 1883, and afterwards proceeds to justify himself as having written from memory, and in holding me accountable for opinions put forth by another. I have yet to learn that one who ventures to write from memory can claim to be excused from being equally careful as to facts as other men; and I entirely dissent from being held responsible for the opinion of others, on no better ground than your contributor's haziness of memory.

The passage in the leading article on "Credulity, Scepticism, and Agnosticism in Science," in the *Medical Times* of July 21st, to which I drew attention, after alluding to Dr. Cuningham's statement, that there is no evidence that human intercourse, &c., causes the spread of cholera, proceeds, "If so, why has it in Europe, and from Europe to America, invariably followed the great routes of trade? Why has it, in countries which have direct communication by sea only with others, when it is endemic or epidemic, invariably made its first appearance in those seaport towns which lie in the routes of such intercourse, and as constantly among persons just arrived from infected parts abroad?" With reference to this, I suggested to the editor that he had overlooked the epidemic of 1873 in the United States, which commenced at New Orleans, and the outbreaks at Southampton and at Theydon Bois, in this country, in 1865, in all of which able investigators, after a searching enquiry, admitted no trace of importation could be made out; and in all the early cases, seen in persons who had not been out of the country. Your contributor's reply to this, appended to my letter in the paper of August 4th, is—"All that Mr. Lawson's letter proves is what nobody denies, that in certain cases it was not possible to discover the origin of the outbreak in importation," followed by some other remarks, one of which on the nature of the disease at New Orleans was disposed of in my letter in the *Medical Times* of 11th August, and the remainder are beside the point at issue. Now that your contributor has acknowledged himself the author of all the articles on this question, and admits it was not possible to discover the origin of these outbreaks in importation, and that the first cases were in persons who had not arrived from infected ports abroad, I have no doubt the readers of the *Medical Times*, like myself, will be curious to learn how he came to write the passage quoted above from the paper of 21st July.

ROBERT LAWSON,
Inspector-General of Hospitals.

London,
26th February, 1884.

[Mr. Lawson now admits, and in the face of our quotation it is not easy to see how he could do otherwise, that we have not in any way misrepresented Dr. Cuningham's views on contagious disease in general; and he himself now disclaims all sympathy with them, except as regards cholera. Had Dr. Cuningham limited his scepticism to this disease and enteric fever, however much we, in common with many of the highest authorities in England, India, and Germany might differ from him, we should never have characterised his views as agnostic; it was this general incredulity that we attacked, and which we naturally supposed was shared by Mr. Lawson when he came forward as the champion of his absent friend, without stating that he differed from him as regards the entire class of contagious diseases, properly so-called. We really cannot go into the question of the negative evidence of the Southampton and New Orleans outbreaks, beyond reminding Mr. Lawson again, that on page 101 of the United States report he will find good reason to doubt the nature of the epidemic. At another time and place we may continue the discussion, but must decline to return to it at present.

THE WRITER OF THE ARTICLES.]

WATER ANALYSIS.

[To the Editor of the Medical Times.]

SIR,—Your note in the *Medical Times*, February 23rd, p. 252, states that in the discussion on water analysis at the Society of Medical Officers of Health, it was the general feeling of the meeting that "the analysis should rather be deemed subsidiary to, and confirmative of, microscopical, physiological, and other evidence." Certainly neither the paper itself nor the observations of those qualified to pass an opinion upon the subject will bear this interpretation, and the statement quoted is, so far as my impressions may be trusted, not correct. The gist of my own remarks was, that *no one method of investigation should be exalted at the expense of another*—that very bad and very good waters alike presented little difficulty, but some on the border line required not alone chemical but biological methods; that the system proposed at the Society of Analysts, some time back, of giving a definite value to the appearance, odour, microscopical characters, chlorine, nitrates, &c., in a water was useful, and that my own practice was never to make a report upon a water without previously cultivating it in sterilised broths or syrups. These remarks were not dissented from, but it is obvious they were not intended to depreciate the value of chemical analysis as applied to water.

I am, Sir, &c.,

A. WYNTER BLYTH.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 21, 1884:—

Bailey, Wm. Henry, Colney-heath Rectory, St. Alban's, Herts.
Becher, Geo. Jno. Dashwood, Endsleigh-st., Tavistock-square, W.C.
Brooks, Samuel Jno., Tollington-park, N.
Cooper, Jno. Wilford, Hungerton, Grantham.
Eliot, Ernest Fred., Aston Vicarage, Birmingham.
Gwynne, Jno. Hickling, The Poplars, Cannock, Staffordshire.
Haydon, Hillyard Wm., Cholmeley Park-house, Highgate, N.

LONDON SANITARY PROTECTION ASSOCIATION.—The third annual general meeting was held on February 23rd at 1, Adam Street, Adelphi. The Chairman (Mr. Hugh Leonard) read the report of Council, and moved its adoption. The report stated that the membership on December 31st, 1883, had reached 723, including Eton College and all the boarding-houses there, the governing body being reckoned as one member only. During the year the engineers had inspected 404 houses for the first time, the majority of them being in London, but some at great distances, such as the neighbourhoods of Norwich, Lynn, Bury St. Edmunds, Sherborne, Wimborne, &c. This made a total of 927 houses inspected and reported upon by the engineers of the Association in the three years of its existence, most of them three or four times. Similar associations were springing up rapidly in the provinces, to all of which the officers of the London Association gave all the assistance in their power. There were already nine such societies in existence, and three more would be founded very shortly. It was a matter of deep regret to the Council that the aid of the Association had not been more freely sought for in connection with the improvement of the dwellings of the poor, but they hoped that if the Mansion House Council on that subject, and the numerous Sanitary Aid Committees now being formed, placed themselves in communication with that Association, they might work in harmony, and much good might result.—Mr. Timothy Holmes, M.A., F.R.C.S., the honorary treasurer, in presenting his balance-sheet, said that there was a net balance of 150*l.* to be carried forward. This had encouraged the Council to engage a fourth engineer, in the person of Mr. Alexander Kyd.—Several gentlemen having addressed the meeting, Dr. Whitelegge, the executive officer of the Mansion House Council on the Dwellings of the Poor, asked how far that Association was willing to assist the Mansion House Council in the work they had undertaken.—Dr. Bristowe, F.R.S., a member of Council, said that as a medical officer of health he deprecated the idea of the Association setting itself in opposition to any body of men such as the parish authorities, or mixing itself up in any contentious business which was likely to lead to litigation; and Mr. Holmes, the treasurer, having spoken to the same effect, the chairman replied that the matter would be taken into the careful consideration of the Standing Committee of the Council. The chairman then moved the adoption of the report which was seconded by Dr. Bristowe, and carried unanimously. The formal business of the election of president and council for 1884 was then proceeded with; and the whole of the outgoing council were declared to be re-elected, with the addition to their number of General Lord Chelmsford, G.C.B. His Grace the Duke of Argyll was elected as president. A vote of thanks to the Council terminated the proceedings.

SANITARY ASSURANCE ASSOCIATION.—The third annual meeting of this association was held at 5, Argyll-place, Regent-street, on Monday last, Dr. George Danford Thomas in the Chair. Mr. Joseph Hadley, the secretary, read the annual report and balance-sheet for the year 1883, in which the council explain that after the experience of three years, they have made such alterations in the details of their work as have enabled them to reduce the charges, both for houses in London and in the country. The property inspected during the year has varied in rateable value from 10*l.* to 1,000*l.*, and in every case of property placed on the assurance register for the first time, the sanitary arrangements have been found to be more or less defective; but the annual inspections have shown that houses certified by the association have remained in perfect sanitary condition. Dr. Norman Chevers, C.I.E., and Captain Douglas Galton, C.B., F.R.S., had given free public lectures for the association during the year. A special committee had been appointed to consider whether a measure should not be introduced into Parliament, for "compelling builders of all new dwellings to obtain a certificate from some authority, or qualified person, as to the sanitary condition of such dwellings before it shall be lawful for them to be inhabited." Dr. James Stevenson, Medical Officer of Health for Paddington, has succeeded Professor Corfield, as medical officer to the association. The association has become self-supporting, and the council anticipate that in future its progress will be greater than it has been in the past. After allowing for all liabilities, the accounts show a balance in favour of the association. The Chairman, in proposing the adoption of the report, said that after carrying on the association for three years, the council were so satisfied with the result, especially with regard to the granting of sanitary certificates, that they had carefully revised the detail of their work, and they entered on their fourth year with every confidence in the continued prosperity of the association. Mr. Barrington Kennett, Asylums Board,

seconded the adoption of the report, which was unanimously agreed to. Mr. George Aitchison, A.R.A., F.R.I.B.A., and Professor F. de Chaumont, M.D., F.R.S., were re-elected members of the executive council, and a vote of thanks to the Chairman concluded the business.

Bequests to Hospitals.—The late Mr. Alexander Black, of Hyde Park-gardens, has left 50*l.* each to the Royal Infirmary, Aberdeen; the Lunatic Asylum, Aberdeen; and the Hospital for Incurables, Aberdeen; and 30*l.* to the Aberdeen Dispensary. The late Rev. Edward Richard Benyon, of Culford Hall, near Bury St. Edmunds, has bequeathed 500*l.* to the Suffolk General Hospital. The late Mr. Henry Parker, the Centre Row, Covent-garden Market, has bequeathed 1,000*l.* each to Charing-cross Hospital, King's College Hospital, Brompton Hospital for Consumption and Diseases of the Chest, and the Brompton Hospital for Cancer, and the Covent-garden Lifeboat Fund; 1,000*l.* to the rector and churchwardens of the parish of St. Paul's, Covent-garden, the dividends to be distributed annually at Christmas in sums of not less than 5*s.* and not more than 1*l.* among the thoroughly deserving poor of the said parish; and considerable legacies to his niece, nephews, executors, old friends, and old servants. The residue of his property he gives to his old and faithful servant, Thomas Day; and the late Mr. Charles Beville Dryden, of Lincoln's Inn-fields, has bequeathed 900*l.* Consols to King's College Hospital.

A New Lunatic Asylum for Middlesex.—A special committee, appointed by the Middlesex magistrates to report on the accommodation for pauper lunatics, has recommended that an asylum be provided within the metropolitan area, upon a site of 30 acres or thereabouts, specially designed for the treatment of acute cases, such being intended for the accommodation of from eight hundred to one thousand patients. Mr. Adams moved the adoption of the report, and said it would be for the interest of the ratepayers that another asylum should be provided within the metropolitan area, and, although the land might cost a little more, it would be cheaper in the end, as they would not have to provide gas or water works, brewery or bakery. After some discussion it was agreed to defer the further consideration of the subject.

Army Medical Department.—Brigade-Surg. Eugene Francis O'Leary, M.D., retired, has been granted the honorary rank of Deputy-Surgeon-General. The undermentioned Surgeons on probation to be Surgeons:—Oswald George Dyx Bradshaw, Michael Kelly, M.D., Horace Henderson Pinching, Robert James Geddes, M.B., William Kelly, M.D., David Valentine O'Connell, M.D., Anthony Dodd, George Wilson, M.B., James More Reid, Thomas Bassell Winter, Frederick Samuel Heuston, Robert James Anderson Durant, George Frederick Gubbins, James Percival Myles, Robert Lesly, M.B., Henry Priestley Birch, Monckton O'Dell Braddell, M.B., James John Conway Donnet, Henry Maxwell Sloggett, Clement Sumner Robinson.

National Hospital for the Paralysed and Epileptic.—The Lord Mayor, supported by Lord Shaftesbury, K.G., Lord Thurlow, Dr. Vaughan (Master of the Temple), Rev. O. Dykes, D.D., Cardinal Manning, Hon. Geo. Cubitt, M.P., Mr. Samuel Morley, M.P., Sir H. Giffard, Q.C., M.P., Mr. John Marshall, F.R.S., Sir Andrew Clark, Bart., M.D., Sir Risdon Bennett, M.D., and others, is to preside at a meeting in the Mansion House on Friday, the 21st March, in aid of completing the new building of the National Hospital for the Paralysed and Epileptic.

Salicylic Acid as a Food Preservative.—A short time back we gave the substance of the report of the French Hygienic Committee on the use of salicylic acid as a food preservative. We now learn that the French Minister of Commerce has just issued a circular to the Prefect of Police on the subject. He has submitted the question once more to the Consulative Hygienic Committee, and the committee has recommended him to keep up the prohibition of salicylic acid for such purposes, as being a dangerous ingredient for daily consumption, especially if the liver or kidneys be effected. The custom-house officers have already received instructions to report any articles of food containing the obnoxious acid that pass through their hands, and other officials are to receive instructions to the same end as regards substances of home manufacture.

Greenock Infirmary.—The annual meeting of the directors and subscribers of the Greenock Infirmary was held on Thursday week. The report showed that the total admissions in 1883 were 1,325, showing an increase of 19 over the previous year. The fever-house admissions were 289, or 76 fewer. The total number treated to a termination were 1,355, and the mortality was 110, or 8·2 per cent., as against 9·3 per cent. in 1882. The financial sheet showed that the debt of 2,310*l.* existing at the beginning of 1883 had been wiped off by a public subscription, which amounted to 2,876*l.* The ordinary income for 1883 was 4,598*l.*, being a slight decrease compared with the previous twelve months. The ordinary expenditure for 1883 was 6,110*l.* The report was unanimously adopted.

Glasgow Hospital for Sick Children.—The first annual meeting of subscribers to the Glasgow Hospital for Sick Children was held on Wednesday, the 20th ultimo, the report for the year stated that from January 8th, to November 30th, 260 patients had been admitted, of whom 103 had been cured, sixteen had died, 89 had been discharged, and 52 remained in the house. Of the patients, 230 belonged to the city and suburbs. Donations amounting to 4,849*l.* 19*s.*, and legacies amounting to 490*l.* had been received, 12,510*l.* 0*s.* 2*d.* had been spent in erecting and equipping the hospital, and in purchasing the site, and there was a balance left in hand of 312*l.* 8*s.* 8½*d.* The Chairman in moving the adoption of the report, said it laid before the public of Glasgow what he thought was almost unparalleled—namely, that that beautiful little hospital, equipped with all modern appliances, and in every way as such an institution should be, was now, after having been carried on successfully for a year, about to be handed over to the citizens of Glasgow free of debt. Professor Leishman seconded the adoption of the report, which was unanimously approved. The office-bearers were afterwards elected.

Stroud General Hospital.—From the annual report which has just come into our hands, we gather that matters at this institution are tolerably satisfactory. During 1883, the in-patients numbered 801, the out-patients 2,475, whilst 122 were treated at their own homes. The total expenditure for the year was 1,645*l.* 9*s.* 10*d.*, or 20*l.* in excess of last year, whilst there has been a falling-off in the regular subscriptions. But the Committee have, nevertheless, been able to invest the lagacies received, which amounted to 230*l.* The hospital has sustained a great loss in the death of President, Mr. Capel, who had been connected with the management for thirty years.

The Sanitary History of Berkshire for the Year 1882.—The sanitary history of the county of Berkshire, for the year 1882, compiled by Dr. W. T. G. Woodforde, medical officer of health for the combined districts of Berks, does not contain any information of exceptional interest. Before proceeding to analyse the vital statistics of this county, it may be as well to remark that it is divided into twelve districts, Newbury (two), Hungerford, Abingdon (two), Wallingford (two), Bradfield, Cookham (two), Easthampstead, and Windsor (rural). The mean birth-rate for the year under notice was 31·0, and the mean death-rate 16·0 per 1,000; the latter, though higher than that for the previous year, being about equal to the average of the past five years. It is somewhat singular to note that the death-rate varies considerably in the different districts, ranging from 13·8 in the Bradfield Rural Sanitary District, to 24·9 per 1,000 in the Wallingford Urban Sanitary District. This latter rate, as might have been expected, enlisted the particular attention of Dr. Woodforde, and several sanitary improvements were at once undertaken; four samples of drinking water taken from the public pumps, were all found on analysis to be polluted, three of them to a large extent, and in calling the attention of the authority to this circumstance, Dr. Woodforde pointed out that while no infectious cases had been reported, and there had been in that district an admitted absence of zymotic mortality, this unusually high death-rate was so far an indication of a poor condition of

the public health. The zymotic death-rate in this district was, in fact, only ·4 per 1,000, and it ranged upwards to 4·2 per 1,000, in the Newbury Urban Sanitary District; the mean rate, however, for the whole of the county during the year 1882, was 2·1 per 1,000.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The annual general court of the Governors of the Royal Hospital for Children and Women, in the Waterloo Road, was held on Tuesday, the Lord Mayor presiding. The report of the committee stated that the past year had been one of much importance to the hospital, several alterations which were urgently required, having been carried out. During the year there had been 465 in-patients, 6,874 out-patients, while the attendance of patients numbered 27,849. Both the in-patient and out-patient department had worked satisfactorily, and 220 sick children had been visited at home. The committee drew attention to the fact that there was a deficit of more than 400*l.* at the close of the year, and appealed most earnestly for new annual subscriptions.

CAMBRIDGE UNIVERSITY.—The following have been elected members of the Board of Electors to to the undermentioned professorships, until February 20th, 1892:—Chemistry, Professor Dewar; Anatomy, Dr. Paget; Botany, Professor Michael Foster; Zoology and Comparative Anatomy, Professor Michael Foster; Downing Professor of Medicine, Dr. T. Lander Brunton; Physiology, Mr. J. N. Langley; Pathology, Dr. Latham; Surgery, Mr. Timothy Holmes; Dr. Hans Gadow, Strickland Curator, has been approved as teacher of Comparative Anatomy; Mr. Laurence Humphry, M.A., M.B., Trinity, as teacher of Pathological Anatomy; and Mr. E. H. Neville, Sidney Sussex, as a teacher of Practical Chemistry.

APPOINTMENTS.

BERRESFORD, R., L.S.A.—Junior Assistant House Surgeon to the Public Hospital and Dispensary, Sheffield, *vice* H. Lockwood, M.R.C.S., L.S.A., appointed Assistant House Surgeon.

BROOKS, W. T., M.B.—Physician to the Radcliffe Infirmary, Oxford.

CAIGER, F. F., M.B., B.S., M.R.C.S., L.R.C.P.—House Surgeon to St. Thomas's Hospital.

DINGLEY, E. A., M.D., M.R.C.S.—House Physician to the Wolverhampton General Hospital, *vice* Dr. Collier resigned.

GIBBS, ROBERT, M.R.C.S. Eng., L.S.A.—Medical Officer to the Teignmouth District, Newton Abbot Union.

GREEN, C. D., M.R.C.S., L.R.C.P.—House Physician to St. Thomas's Hospital.

GREEN, E. C., M.R.C.S., L.S.A., L.R.C.P.—House Surgeon to the Derbyshire General Infirmary.

GRINDON, FRANCIS J., M.R.C.S. Eng., L.S.A.—Medical Officer to the Sixth District, Newport Pagnell Union.

HULL, WALTER, M.B., M.R.C.S., L.R.C.P.—House Physician to St. Thomas's Hospital.

JOHNSTON, G. D., M.R.C.S., L.R.C.P.—House Surgeon to St. Thomas's Hospital.

JONES, W. WANSBROUGH, M.A., M.B., M.R.C.S.—Resident Accoucheur to St. Thomas's Hospital.

MADDISON, W. T., M.B.—Assistant Medical Officer to the Darenth Asylum for Imbecile Children.

MAGUIRE, R., M.D., M.R.C.P.—Demonstrator and Assistant Lecturer on Pathology, in the Owens College, Victoria University.

MARSH, JOHN H., L.R.C.S. Edin., L.R.C.P. Edin.—Medical Officer to the Hulton District, Bolton Union.

MARSH, O. E. B., L.R.C.P., M.R.C.S., L.M.—Honorary Surgeon to the Newport (Monmouth) Infirmary, *vice* B. Davies, M.D., resigned.

MCNEILL, R., M.D.—Medical Officer to the Gesto Hospital, Colonsay.

ORFORD, JOHN, M.R.C.S., L.R.C.P.—Reappointed House Physician, Non-resident, to St. Thomas's Hospital.

POPE, HENRY B., M.B., B.Ch. Dublin.—Medical Officer to the Eardisley District, Kington Union.

ROBINSON, H. B., M.R.C.S., L.R.C.P.—Clinical Assistant in the Special Department for Diseases of the Skin to St. Thomas's Hospital.

RYGATE, DAVID J., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.—Medical Officer to the Second District, Cambridge Union.

SANKEY, H. R. O., M.B.—Superintendent of the Warwick County Lunatic Asylum, *vice* the late Dr. Parsey.

SHEPPARD, W. J., M.B., M.S., M.R.C.S., L.R.C.P.—Assistant House Surgeon to St. Thomas's Hospital.

TOMSON, W. B., M.B., M.R.C.S., L.R.C.P.—Assistant House Physician to St. Thomas's Hospital.

TURNELL, ARTHUR P., M.R.C.S. Eng., L.S.A.—Medical Officer to the Fourth District, Cambridge Union.

VOIGHT, J. C., M.B., C.M.—Senior Resident Medical Officer to the Infirmary, Bury, Lancashire.

VACANCIES.

BIRKENHEAD BOROUGH HOSPITAL AND DISPENSARY.—House Surgeon. Salary £100 per annum, with board, lodging, and washing. Candidates must be doubly qualified and registered. Applications, with testimonials, stating age, to be sent to the Chairman of the Weekly Board, on or before March 3rd.

DRIFFIELD UNION, DRIFFIELD DISTRICT, AND THE WORKHOUSE.—Medical Officer. Area 14,460 acres. Population 7,017. Salary £56 per annum.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. Salary £80 per annum, with board and lodging. Candidates must be doubly qualified, and on the Medical Register. Applications, stating age, and accompanied by testimonials (not original), to be sent to the Chairman of the Medical Board, on or before March 5th.

LEAMINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. (*For particulars see Advertisement.*)

MARTLEY UNION, KNIGHTWICK DISTRICT.—Area 5,852 acres. Population 1,376. Salary £55 per annum.

MEMORIAL HOSPITAL, JARROW-ON-TYNE.—Resident Surgeon. Salary £150 per annum, with board in the Hospital. Candidates must be fully qualified, not under 25 years of age, and must engage to hold the appointment for three years. Applications with copies of testimonials to be sent to the Committee of Management on or before March 5th.

RUNCORN UNION.—Medical Officer. (*For particulars see Advertisement.*)

THE HOSPITAL FOR WOMEN, SOHO SQUARE, W.—Administrator of Anæsthetics. (*For particulars see Advertisement.*)

TOXTETH PARK TOWNSHIP.—Medical Officer. Salary £110 per annum.

WEST KENT GENERAL HOSPITAL, MAIDSTONE.—House Surgeon. Salary £120 per annum, increasing £10 per annum, to £150, with furnished apartments, coals, gas, and attendance. Candidates must be registered under the Medical Act, and unmarried. Applications and testimonials, accompanied by a certificate of registration, to be sent to the Secretary on or before March 6th.

WOLSTANTON AND BURSLEM UNION, TUNSTALL DISTRICT.—Medical Officer. Area 1,966 acres. Population 18,017. Salary £50 per annum.

WONFORD HOUSE HOSPITAL FOR THE INSANE, NEAR EXETER.—Resident Medical Superintendent. Salary £500 a year, with furnished residence, board, washing, and attendance. Candidates must be registered both in Medicine and Surgery, and not less than 30 years of age. Applications, stating age, experience in the treatment of the insane, &c., whether married or single, with testimonials of recent date, to be addressed to the President, Committee of Management, Wonford House, Exeter, endorsed M.S., on or before March 11.

DEATHS.

FERNIE, ANDREW, M.D., at Barnstaple, Devon, on February 22nd, aged 51.

HICKINBOTHAM, JAMES, M.D., at 26, Broad Street, Birmingham, on February 22nd, aged 41.

MAC DONOGH, PATRICK, L.R.C.P., at New Zealand, on January 1st, aged 29.

WOOD, ALEX., M.D., F.R.C.P., at Strathearn Place, Edinburgh, on February 26th.

NOTES, QUERIES, AND REPLIES.

THE ROGERS TESTIMONIAL.

The promoters, of the expression of opinion, of Dr. Joseph Rogers public work, during upwards of thirty years, desire to inform the profession, and the public, that the Subscription List will remain open until the end of March.

The following is the thirteenth list of subscriptions:—Albert Southey, Esq., Colnbrook, £1 1*s.*; Dr. E. S. Willett, Isleworth, £1 1*s.*; Messrs. Pinching, Gravesend, 10*s.* 6*d.*; H. T. Wood, Esq., Calstock, Devon, 5*s.*; Dr. T. Morgan, Montgomery, 5*s.*

THE MARRIAGE OF COUSINS.

TO THE EDITOR OF THE MEDICAL TIMES.

SIR,—Can you inform me through the medium of your journal, if it is the general opinion of the medical profession that the marriage of first cousins is unadvisable, for the reason that the offspring of such unions are frequently mentally, or otherwise, afflicted? In a case in point, two cousins desire to marry, their respective fathers were *twin* brothers, and both died prematurely of consumption.

I am, Sir, Yours, &c.
J. B. W.

Constant Reader.—We have published all the pass-lists that have been sent to us. The Edinburgh list appeared in the *Medical Times* of February 16th.

W. Darley-Hartley, East London.—We regret that there is no vacancy in our Exchange List.

Dr. Althaus.—Letter unavoidably held over till next number.

COMMUNICATIONS RECEIVED—

Mr. J. HUTCHINSON, F.R.S., London; Dr. ALTHAUS, London; Dr. NORRIS WOLFENDEN, London; Dr. CURNOW, London; Mr. A. WYNTER BLYTH, London; Dr. WM. EWART, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Dr. C. A. TOD, St. Louis, U.S.A.; Mr. COLE, Warwick; Mr. W. TYRRELL, Malvern; THE HON. SECRETARIES, ODONTOLOGICAL SOCIETY, London; Prof. ARNALDO CANTANI, Naples; Mr. J. L. FOULDS, Glasgow; Mr. F. C. DAVIDGE, London; Mr. BUCKSTON BROWNE,

London; Dr. Osler, Montreal; Inspector General Lawson, London; Mr. G. Rendle, London; The Hon. Secretaries, National Independent Club, London; The Secretary, Obstetrical Society, London; Mr. W. Weiss, London; Mr. Timothy Holmes, London; The Editor, Liverpool Daily Post; Mr. Blackwood, Edinburgh; Mr. Alex. Watt, Aboyne; Messrs. Cassell & Co. (Limited), London; The Registrar-General, Edinburgh; The Secretary, Royal Institution; Mr. J. Wickham Barnes, London; Dr. S. Wilks; Dr. Shelly, Hertford; Mr. Ernest Hart, London; Dr. W. B. Hadden, London; Dr. B. W. Richardson, London; Dr. Lediard, Carlisle; The Secretary, Pathological Society, London; The Secretary, Royal Medical and Chirurgical Society, London; Dr. J. W. Moore, Dublin; Mr. John Bellamy, London.

BOOKS RECEIVED—

Annual Report of the Royal Albert Asylum for Idiots, &c.—The Physical Features of Idiocy, &c., by G. E. Shuttleworth, M.D.—Medical Electricity, by A. de Watteville, M.A., M.D.—A Text-Book of the Principles of Physics, by A. Daniell, M.A.—Schwegler's History of Philosophy, by J. H. Stirling, LL.D.—Diseases of the Spinal Cord, by W. R. Gowers, M.D., F.R.C.P.—Medical Fashions, by E. T. Tibbits, M.D.—Annual Report of the New York Skin and Cancer Hospital—Sound Bodies for our Boys and Girls, by Wm. Blaikie—Dr. Gustav Jaeger's Clothing Reform, &c.—Health Culture, by Justav Jaeger, M.D.—Family Phthisis, by R. E. Thompson, M.D.—Delle Forme Lievi del Tifo Abdominale del Dottor Guiseppe Lapponi—The Encyclopædic Dictionary, Part II.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften —Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—El Ensayo Medico — The Western Daily Mercury — The South African Medical Journal—The Southern Clinic—Scienze Mediche—The Alienist and Neurologist—The Medical World—The American Journal of Obstetrics—The Detroit Lancet—Blackwood's Edinburgh Magazine —Centralblatt für Therapie—The Morningside Mirror.

APPOINTMENTS FOR THE WEEK.

March 1. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Capt. Abney, "Photographic Action."

Royal Medical and Chirurgical Society, 8 p.m.—Annual Meeting for Election of Officers, &c. President's Address.

3. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopedic, 2 p.m.

Medical Society of London.—General Meeting at 8 p.m. Ordinary Meeting at 8.30 p.m. Surgeon-General Hunter will read a Paper "On the late Epidemic of Cholera in Egypt."

Odontological Society, 8 p.m.—Meeting, at 40, Leicester Square. Casual Communications by Messrs. E. L. Williams, W. Hern, F. N. Pedley, G. W. Field, A. S. Underwood, &c. Communications from Messrs. Dunn, of Florence, and F. R. Lloyd, of Agra, India, will be read.

Royal College of Surgeons of England, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Fourth Lecture "On the Principal Types of the Human Species."

Royal Institution.—Prof. A. Geikie, "Scenery of the British Isles," at 3 p.m. General Monthly Meeting at 5 p.m.

4. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Royal Institution, 3 p.m.—Prof. Gamgee, "Animal Heat."

Pathological Society of London, 8·30 p.m. — Mr. Barwell, "Neoplasm affecting the Knee-joint;" Mr. Lane, "Fracture of Cartilage of First Rib;" Dr. Hale White, "Insular Sclerosis;" Dr. Norman Moore, "Interstitial Disease of Ovary;" Mr. Bowlby, "Symmetrical Gangrene;" Dr. West, "Fibrotic Disease of Heart," "Stomach from Case of Carbolic Acid Poisoning," (card); Dr. Sharkey, "Œsophagus, Stomach, and Intestine, from Case of Carbolic Acid Poisoning," (card), "Lodgement of Fish Bone in Larynx," (card); Mr. Clutton, "Sarcoma of Tonsil," (Living Specimen), "Nasal Calculus," (card); "Myeloid Sarcoma of Head of Tibia," (card); Mr. Roger Williams, "Photograph of Congenital Absence of Femora;" Mr. Makins, "Obstruction of the Trachea in a Child, from Pressure by Bronchial Glands," (card); Mr. Golding Bird, "Micrococci from Infective Osteo-Myelitis," (card) Mr. Lockwood, "Right Aortic Arch," (card); Mr. Turner, "Intussusception with Fatty Tumour of Intestine," (card), "Tuberculosis after Scarlatina and Caseous Glands," (card); Mr. J. Hutchinson, jun., "Heart with Left Superior Vena Cava," (card), "Ankylosis of Cervical Vertebræ," (card).

5. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Obstetrical Society, 8 p.m.—The following Papers will be read:—Dr. John Williams, "On the Corroding Ulcer of the Os Uteri;" Mr. Alban Doran, "On the Relation of Prolapse of the Vagina to Hernia," illustrated by two pedigrees. Specimens will be shown by Dr. Horrocks, and others.

Royal College of Surgeons of England, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Fifth Lecture "On the Principal Types of the Human Species."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution, 3 p.m. — Prof. Tyndall, "The Older Electricity."

7. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Sixth Lecture "On the Principal Types of the Human Species."

Royal Institution, 8 p.m. — Mr. C. V. Boys, "Bicycles and Tricycles.

West London Medico-Chirurgical Society, 8 p.m.—The following Papers will be read:—Mr. Hendley, in conjunction with Mr. Benham, "A case of Poisoning by Ammoniate and Red Oxide of Mercury;' Mr. Howard Marsh, "Three cases of Osteotomy with interesting Complications;" Dr. Thudichum, "Two fatal cases of Peritonitis simulating Poisoning," and "Several cases of Ammonuria and of Exostosis in the Nasal Cavity, with Operation and Treatment," (he will also exhibit microscopic specimens of Microzymes); Mr. Bruce Clarke, "A case of Radical Cure of Hernia."

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MEDICAL TIMES
AND GAZETTE.

No. 1758. LONDON, SATURDAY, MARCH 8, 1884.

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REMARKS UPON THE TREATMENT OF TYPHOID FEVER BY THE COLD BATH.

By SAMUEL WEST, M.D.,[1]

Physician to the Chest Hospital, Victoria Park; Assistant Physician to the Royal Free Hospital; Medical Registrar and Medical Tutor at St. Bartholomew's Hospital.

THE points to which I desire to direct attention are chiefly two:—first, I wish to speak briefly of the doctrine of fever, upon which this method of treatment is based; and, secondly, to refer to the statistics which have been published, and to consider the value of the conclusions which have been drawn from them.

Liebermeister commences his pamphlet[2] upon this subject with the following paragraph:—"The longer I am engaged in the careful study of fever, the more confirmed I become in my conviction that the manifold phenomena, the sum of which constitutes the complex of symptoms of fever, are in chief part only the results of one of these phenomena, viz., the increase of body temperature. It is the increase of body temperature which, according to my conception, is not only the pathognomonic symptom of fever, but also the proximate and sufficient cause of most of the other symptoms peculiar to fever, or characteristic of it; and, finally, it is also the increase of body temperature, which in the highest degree produces the danger of fever." In other words, the temperature is practically the cause of the symptoms of fever, and of the dangers which arise in it. That I am not straining Liebermeister's meaning is quite clear from numerous other passages in the same pamphlet.

It would be quite beyond the field of this discussion to criticise this statement with reference to fever generally; but we may with advantage consider its applicability to typhoid fever only.

Clinical observation is, I think, quite opposed to the acceptance of this proposition, as it stands, in the case of typhoid fever. It is certainly not our experience in this country that the dangers of typhoid fever vary in direct proportion to the height of the temperature. Numerous cases with high temperature recover, and many with low temperature die. Diarrhœa, exhaustion, hæmorrhage, perforation, and peritonitis, each has its own victims, and produces its own dangers quite irrespective of the temperature, although it has been asserted that a high temperature increases the risks of these complications, and it may be so. But the assertion has to be proved, and must not be assumed.

Liebermeister's statement, therefore, as it stands is incorrect, without so many reservations and conditions that it becomes practically of little value when applied to any individual case. I need hardly refer to other diseases, such as phthisis, or suppuration fever, in which

[1] Read before the Medical Society of London.

[2] Liebermeister und Hagenbach. "Anwendung des kalten Wassers bei fieberhaften Krankheiten." Leipzig, 1868, p. 83.

the temperature is high for long periods together, and in which no symptoms arise which call for the same active treatment as is demanded by the advocate of cold-bathing, with similar temperatures, in typhoid fever.

I would not, of course, deny that high temperature may in itself be a source of danger, but such cases belong to the general group of hyperpyrexiæ, a state the pathology of which we do not comprehend, and which may arise under so many divers conditions, that it is difficult to find a factor common to them all. Even supposing that it were proved, and this it is not, that a temperature of 103° or 104° were in itself a danger to life, and that by cold-bathing the temperature could be permanently reduced to its normal height, knowing so little as we do of the exact way in which a cold bath acts upon the body, we should not be justified in assuming, without further proof, that the improvement was due simply to reduction of temperature.

The facts known about fever seem to indicate that we have in fever a complex of co-ordinate symptoms, each of which may vary within wide limits—and this is true even of that symptom of which we are specially speaking now, viz., temperature—and that each and every one of these symptoms is due probably to some common cause as yet undetermined.

We must give account, to obtain any satisfactory explanation of fever, of the increased heart's action, of the sensorial and gastric disturbances, of the chills, of the increase of chemical metabolism, and of the diminution of secretions, as well as of the rise in temperature, of which each of the other phenomena is, it appears, essentially independent. This, however, is not the time for a dissertation upon the general question of fever. I have said this much, only to show that the theory, which appears to be often assumed by the chief advocates of this method of treatment, is one which is in all probability insufficient, and that, therefore, the treatment based upon this theory, will be probably also found insufficient.

But it might be urged, if the results of the treatment are good, they become an argument in favour of the theory upon which the treatment is established. This is a specious, but very dangerous argument to use in medicine, and it is hardly necessary to point out the many fallacies which it embraces. As, however, the results to which reference is made are obtained from statistics, I am brought naturally to the consideration of the second point of my paper, viz., the applicability of statistics to the solution of this problem.

The fallacies to which all statistical conclusions are exposed, are chiefly three.

1. Inaccurate observation and grouping of facts.
2. Insufficient number of facts.
3. Insufficient elimination of, or allowance for, disturbing causes.

In the particular case with which we have to deal, we may assume the correctness of the observations, and turn to the consideration of the last two sources of error—insufficient data, and disturbing causes.

The problem to be dealt with is one of the highest complexity. If it were possible to get two sets of observations, in all respects similar, except in regard to the treatment by cold-bathing, the one having this method of treatment and the other not, the comparison would be just and the conclusions final, but these conditions are clearly impossible of fulfilment.

The unreliability of comparative statistics in typhoid fever is, I think, generally recognised, and the disturbing causes are so great that it is impossible to make sufficient allowance for them. It is impossible, except in the most general way, to compare the statistics of one epidemic with those of another, or, indeed, of the same epidemic in different countries, or even in different parts of the same country, still less of different epidemics in different places. This is true, even of the same epidemic in different parts of the same town. I have drawn out upon the following table the mortality statistics of the last 23 years at St. Bartholomew's Hospital. The figures demonstrate very clearly the points to which I am referring :—

TABLE I.

Statistics of Typhoid Fever at St. Bartholomew's Hospital.

Year.	No. of Case.	Deaths.	Percentage.
1860	29	2	7·6
1861	49	10	20·4
1862	63	5	7·94
1863	41	3	7·52
1864	37	7	18·9
1865	55	9	16·36
1866	57	9	15·8
1867	61	14	20·3
1868	61	15	24·36
1869	47	14	30·0
1870	61	9	14·75
1871	72	10	13·9
1872	53	6	11·7
1873	80	13	16·25
1874	87	11	12·64
1875	46	3	6·52
1876	59	11	18·64
1877	77	13	16·9
1878	167	20	12·0
1879	103	19	18·45
1880	91	21	23·08
1881	126	32	25·4
1882	146	16	10·96
TOTAL	1,668	272	16·96

The total number of cases is 1,668, with 272 deaths, giving a percentage of mortality of 16·96, which agrees closely with that given by Murchison. When we compare the mortality year by year, it is surprising to find how great the variations are, from 6·52 per cent. up to 30 per cent. In fact, there are hardly any two, and certainly no three, consecutive years in which the percentage mortality is even approximately the same. Even in consecutive periods of five years the mortality differs widely, 14·6, 13·88, 19·8, 12·33; and the difference over periods of ten years, though of course less than for short periods, is still considerable, 17·6, 14·28. The statistical tables of the Middlesex Hospital, brought forward by Dr. Coupland; those of Guy's, by Dr. Frederick Taylor; and those of the London, by Dr. Gilbart Smith, show similar wide variations, and demonstrate the extreme need for caution in the comparison of typhoid fever statistics.

TABLE II.

Percentage over Periods of Five Years.

Period.	No. of Cases.	Deaths.	Percentage.
1860–4	219	27	12·33
1865–9	281	61	21·7
1870–4	353	49	13·9
1875–9	452	66	14·6
1881–3	363	69	19·01

Percentage over Periods of Ten Years.

1860–9	500	88	17·6
1870–9	805	115	14·28

If any results could be comparable with one another, it might be thought to be those of the different physicians in the same hospital, during the same epidemic. These statistics are shown upon Table III. for the last three years at St. Bartholomew's Hospital.

Of the four physicians—whom I may designate by the letters A, B, C, and D—one, viz., A, practised the cold-bath treatment with activity; the other three, B, C, D, used, if I may so call it, the modified cold-water treatment, endeavouring to reduce the temperature by cold-sponging, wet-packs, light clothing, drugs, &c., and using only the cold or tepid bath when the temperature was persistently very high. I thought, by comparing the results of the one with those of the other three, I might discover some facts of interest. The results are shown upon the Table III., in which are put out the number of cases, with the number of deaths in each year, and the percentage reckoned.

We find that A had under his care 110 cases, with 18 deaths, giving a percentage of 16·36; but the percentage in different years varies very widely, and in 1882 is more than double that of either of the other years.

Taking the practices of B, C, and D together, we find that there were 255 cases under treatment, with 45 deaths, giving a percentage of 17·65 which is not very different from the percentage of A; but when we analyse the figures of the B, C, and D group, and compare them with one another, we find the same great variations and irregularity, to which I have already referred, as occurring in every statistical table published upon the subject.

TABLE III.

Statistics of the Four Physicians during the Years:

A.

Sex.	1881.		1882.		1883.		Grand Totals.	
	Total No.	Deaths.	Total No.	Deaths.	Total No.	Deaths.	Total No.	Deaths.
Male	22	7	25	4	26	3	73	14
Female ..	12	2	11	0	14	2	37	4
Total ..	34	9	36	4	40	5	110	18
Percentage ..	11·1		26·5		12·5		16·36	

B.

Male	17	3	24	2	16	4	57	9
Female ..	8	0	16	1	12	2	36	3
Total ..	25	3	40	3	28	6	93	12
Percentage ..	12·0		7·5		21·48		12·9	

C.

Male	13	8	27	2	16	5	56	15
Female ..	12	4	7	1	10	1	29	6
Total ..	25	12	34	3	26	6	85	21
Percentage ..	48·0		8·82		23·1		24·7	

D.

Sex.	1881.		1882.		1883.		Grand Totals.	
	Total No.	Deaths.	Total No.	Deaths.	Total No.	Deaths.	Total No.	Deaths.
Male	13	2	11	2	9	1	33	5
Female ..	13	3	21	3	10	1	44	7
Total ..	26	5	32	5	19	2	77	12
Percentage ..	19·2		15·62		10·53		15·6	

These tables thus only accentuate one of the chief difficulties which we have to meet in dealing with medical statistics, and show, I think, conclusively the complexity of the disturbing causes for which, if logical conclusions are to be drawn, we must make adequate allowance.

Such statistics as these latter are, of course, open to the objection, that the numbers are small; but they are not smaller than some which have been published, and which are supposed to justify certain conclusions.

But all who are familiar with the working of a hospital know how largely such results as these may vary, in consequence of accidental causes, quite irrespective of treatment, depending, as it is often said, upon good or bad luck—one ward having a run of severe and another of light cases. How greatly chance enters into such results, is illustrated by an authentic tradition of St. Bartholomew's Hospital, upon the authority of the late Dr. Jeaffreson, who, for the first five years after he entered upon charge of the wards in the hospital, never had a single death from fever, and that when there was no isolation fever-ward in the hospital, but all cases of fever alike were admitted into the general ward indiscriminately. A similar experience befell also the late Dr. Black, who, for a period of eighteen months, never lost a single fever case. Such facts as these are very extraordinary, though, of course, quite accidental, but their bearing upon the present subject of discussion is clear.

The same evidence of disturbing causes is seen when the results of the various advocates of the cold bath are compared with one another, the percentage varying from 3·1 to 13·2.

Now on referring to the general table which Dr. Coupland quoted, giving the results of foreign observation, two strange facts strike me. First, the high rate of mortality taken as the average upon treatment other than cold-bathing; and, secondly, the extremely low mortality with that treatment. Such a wide divergence is, I venture to think, suspicious. In the first place, the average mortality assumed is excessive; a percentage of 30, 27, 26, 24 represents a mortality which is most unusual, and can be explained only on the assumption that either the numbers taken are too small, or that other diseases of a severe kind are included, for it is far in excess of our average in this country, which is about 16 to 18. Out of the 23 years at the London Fever Hospital (1848–70), from which Murchison draws his statistics, on only four occasions did the percentage exceed twenty, viz., 20·55, 26·97, 27·83, and 28·4. The possibility of error is openly acknowledged even by Liebermeister in the early statistics which he gives, where the mortality is stated to be 27·3.

Another striking fact, viz., the lowness of the percentage on cold-bath treatment, suggests the opposite possibility, viz., the inclusion among typhoid fever cases of a large number of mild or even doubtful cases, many of

which we classify in this country under an entirely different heading, such as ephemera febricula, &c., and which would seem to correspond with Jürgensen's "typhus levissimus." With reference to these light or mild cases, Liebermeister himself puts the percentage mortality of cases not treated antiseptically, in which the temperature did not rise above 101, at the remarkably low figure of 9·6. That the question of diagnosis assumes an important position in this consideration is also acknowledged in a very careful paper by Dr. Goltdammer, of Berlin, whose conclusions recommend themselves the more strongly because the subject is discussed in a more critical and less enthusiastic manner. This paper is a very important one: first, on account of the large number of cases with which it deals; and, secondly, on account of the caution which the author displays. The percentage given of the mortality of cases not treated by cold-bathing is 18·1, a number which closely approximates to our usual average in this country. By cold-bathing the mortality was reduced by five per cent., *i.e.*, to 13·2. But in criticising his own results, he makes several remarks which may throw light upon some of the other foreign statistics. He explains the comparative highness of his percentage upon the cold-water treatment, by stating that he has included all cases indiscriminately, and has not excluded those which came to the hospital in a hopeless state—this, I need not say, is a very suggestive remark. He adds further that, so far as he is aware, his results are not surpassed by those of any other hospital in Berlin. But even the difference of five per cent. in the mortality is small, and, as I have shown, comes well within the range of periodical variations. Dr. Cayley claims even a smaller percentage improvement than this, about 3 per cent.

I may refer in illustration to the statistical tables of heart-disease as a consequence of rheumatic fever given by various authors. One would have thought that, if any disease did admit of tolerably accurate diagnosis and classification, that disease would be rheumatic fever and its cardiac sequelæ, and yet the percentages differ so extraordinarily as to defy explanation. They range from so low a figure as 3 per cent. up to 50, 60, or even higher.

The only possible way of eliminating the fallacy of disturbing causes in statistics is by dealing with very large numbers, and even when the numbers are large the difficulties in excluding cases which do not really belong to the class become almost insuperable. Indeed I do not see how it is possible in the case of typhoid fever, to obtain sufficient data of the right kind. For these reasons I venture to think that the statistical method is not applicable to the solution of the problem we have before us.

By what means can this question then be solved? Believing, as I do, that it must be answered by individual experience, and not by statistics, I have thought I could best contribute to the discussion by eliciting the opinion of the physicians at St. Bartholomew's Hospital, who responded most readily to my request, and have given me their opinions in writing to communicate to this Society.

Dr. Andrew writes thus:—"I should not use the bath in any ordinary case of typhoid fever in which the temperature did not rise above 105°. It is impossible for me, in reasonable compass, to lay down the considerations which guide me in such cases. The duration of the hyperpyrexia, as well as its height, the period of the fever, the special tendency to death in the particular patient, his age, and the characters of the epidemic at the time, would have to be all taken into account. There are also gentle means of reducing the temperature in fever, the early employment of which may prevent the necessity for the bath arising, *e.g.*, attention to the temperature of the sick room, diminishing the amount of bedclothes, and especially by the use of cradles preventing the bedclothes being in actual contact with the body. This last is a most efficient means of reducing temperature; and from observation of its effects I am convinced that in fever, unless its natural crisis be close at hand, it is often injurious to reduce your patient's temperature much below 102°. For the bath, even when necessary, is not without dangers of its own. Pulmonary symptoms not infrequently develop, or become more serious after its use. In short, I look upon the bath as necessary in hyperpyrexia, needless and often harmful in ordinary cases."

Dr. Church's opinion I will quote from an article published by him in the St. Bartholomew's Hospital Reports for 1881:—"Although I have made pretty frequent use of the cold bath, I do not feel sure of the propriety of using it as a routine instrument for typhoid, after the manner of Dr. Brand, of Stettin, Prof. Liebermeister, and others, as recommended by Dr. Cayley in his Croonian Lectures. The difficulty which applies to all statistics, of estimating the probability of the circumstances under which they were compiled being identical with those with which you yourself are dealing, applies with increased weight to the statistics of foreign observers, and I must confess that foreign statistics have but little weight with me. Dr. Cayley's own statistics are, however, very satisfactory. He claims to have reduced the mortality of the severe cases to the level of the average mortality of the disease at the London Fever Hospital. The mortality at St. Bartholomew's very closely corresponds with that of the London Fever Hospital, and has not become less during the few years in which cold baths have been more or less in use there. Dr. Alexander Collie, at the Homerton Fever Hospital, came to the conclusion that cold bathing had no effect on the mortality there; but the number of cases in which he used the bath is not sufficiently large for any reliable deduction to be drawn from them. Another point which renders it necessary to be careful in forming any opinion from a comparison of statistics taken from a limited period, is the remarkable fluctuation in the rate of mortality from typhoid in different years.

"To give every patient a cold bath as often as the temperature rises to 102°, appears to me a most unnecessary amount of fatigue, both to the patient and his attendants. I have no statistics on the subject, but I should say the mortality from typhoid in cases where the temperature does not reach above 102° is extremely small, and if to them be added all the cases of pyrexia, which may be classed as Professor Jürgensen's "typhus levissimus," I can conceive that very favourable statistics might be obtained for any form of treatment not directly hurtful.

"During the last four years, *i.e.*, up to 1881, I have used the cold bath on adults whenever the temperature has remained for 24 hours or so persistently at or about 104°, and have repeated the bath three times in the 24 hours, but not oftener. This utility of cold-bathing in cases of extremely high temperature is well illustrated by Case 1 (quoted in the paper). On the other hand, little or no benefit was obtained from its use in Case 8. Cold sponging, which is almost invariably grateful to the feelings of the patient, is constantly used, though it appears to me to have but a transient effect on the temperature. All my patients are kept very lightly covered with bedclothes."

This opinion, stated in 1881, the further experience of the last three years has only confirmed.

Dr. Gee writes thus:—"Thinking over the promise I made in answer to your request, I find that I have very little to say, and that the value of that little is still less. My febrifuge treatment is no more than to let the patient lie as lightly clad as possible. Sometimes, but seldom, if the fever rise very high,

they are sponged with luke-warm water once a-day, or oftener if need be.

"I have followed the question of cold-bathing in typhoid fever ever since its first introduction in Germany, and I have been waiting for better proof than I have yet found, that such treatment is beneficial, before I cared to subject my patients to what seemed to me to be a severe method of cure."

Dr. Southey states his opinions thus:—"Cold baths answer well as 'stirs,' are admirably suited to cases of enteric, which are early overwhelmed with typhus-like symptoms, and present a very ataxic condition, cases with much subsultus, delirium, and passive lung congestion. I dipped several patients into cold water, temperature of ward 55°–65°, but only in and out again twice or three times in the 24 hours. I continued this in some cases for two or three days. It loses effect, this cold dipping, after too frequent repetition, but is capital in procuring quiet sleep, when resorted to in suitable cases. Employed after the third week it was found too often succeeded by hæmorrhage from the bowels, to doubt its ill effects in this direction.

"Any bathing is good in the first two weeks, cold or tepid, but the baths are after a short time succeeded by an elevation of temperature, unless protracted so as to require warmth and stimulants. Indeed, when I used cold baths, longer than mere dips, I doubted their being so efficacious in lowering temperature as tepid baths taken at 95, and protracted for 15–25 minutes, or until the patient shivered. The tepid baths were not in a single case that I had followed by hæmorrhage, so far as I can recollect."

It is noteworthy that with so considerable an experience of the cold-water treatment, Dr. Southey's opinion should still be so cautious and so far from enthusiastic.

Dr. Duckworth has sent me the following communication, in which his opinion is stated:—"I have had experience of the cold-bath treatment of typhoid fever. For some time cases with hyperpyrexia were thus frequently treated by several of my colleagues, and by myself, at St. Bartholomew's. I think I may say that this practice has now become almost obsolete with us. Not that, as a therapeutic measure, it is absolutely discarded, but it is held in reserve for cases which appear to require it.

"Had I been present at the recent discussions, I should like to have remarked that in the treatment of any disease I regard it as always essential to make a distinction between treating the malady and treating the patient, and I wish this all-important point were oftener borne in mind than it is. Next, I make a clear distinction between what I may call ordinary cases of well-marked typhoid fever, and those in which hyperpyrexia occurs. I consider that a temperature of 105° indicates the beginning of hyperpyrexia. Below that I do not consider a case hyperpyretic, or as exciting any undue anxiety as to the ultimate issue of the disease. I am perfectly satisfied that it is quite unnecessary to employ the cold bath for cases which are not hyperpyretic. I never have any trouble with such cases, and find that the upward pyretic tendency can commonly be checked by what we term the air-bath—that is, by a cradle placed over the limbs, the bed-clothes being raised, and a current of air allowed to pass over the patient's body. This is very effectual in moderating undue thermic tendency. If this fails, I order cold sponging to the limbs, with or without the addition of a bag of ice to the head. Certainly, the great majority of cases, in my experience, need no more in this direction. If, however, the temperature shows persistent disposition to rise in spite of these measures, I employ five or ten grain doses of quinine, or instead, a few doses of salicylate of soda, always prefering the former however, and by this means commonly find the pyrexia under control. I am fully satisfied that for the great majority of cases no further measures are required or, I may add, justifiable. Hyperpyrexia, as I understand it, is not a common complication. When it does occur, I am prepared to use the bath with the ordinary precautions, and as often as may be necessary, and I have no fear of inducing internal congestion or hæmorrhage in such cases. To use it in the other class of cases, I should consider *nimia diligentia*. The cold-bath treatment is practically available for but few other than hospital cases. The process is a very troublesome and fatiguing one for the ward staff, even with the best modern arrangements for moving the patient. Nothing but its absolute necessity would justify such an addition to the labour and anxiety of the resident and nursing staff.

"I am quite sure that it is often practised when it is unnecessary, but I do not affirm that it is injurious in such cases. I think other frigorific measures short of it suffice for most cases. Cold-bathing I regard as a most valuable therapeutic agent in true hyperpyrexia, however induced. I reserve to myself the employment of it whenever I require it in practice, and relegate it to the same position as the lancet, the cupping glass, the use of calomel or alcohol, or, in short, any other potent and well-recognised agent for the treatment of disease."

The experience of St. Bartholomew's Hospital, therefore, is very clearly in favour only of the modified cold-water treatment, *e.g.*, of the use of bathing in cases where the temperature is persistently high, as an adjunct to other antipyretic methods; and here I may remark that the use of the cold bath in typhoid fever patients with a low temperature, say 102°, without harm accruing, proves no more than that the risks of constant bathing are not so great as have been anticipated, but does not prove that the chance of life is in any way increased by it.

Although I would speak with diffidence of my own personal experience, still, as I have been for some years much interested in this question, I may be allowed, without presumption, to say, that I agree entirely in the results which experience has arrived at at St. Bartholomew's Hospital, and I confess at once, that I cannot reconcile the enthusiastic statements of the advocates of cold-bathing with my own observations and experience.

It appears to me, that when the temperature does not rise above 102°, or probably 103°, the cold bath, if it does no harm, does at any rate no good, and is, therefore, I think, unnecessary. Of the cases with higher temperature, there are two classes in which antipyretic treatment is of great service:—first, that in which the temperature runs up to an unusual height, say 106° or higher, even though this level be maintained only for a short time; and, secondly, that in which the temperature, though never so high at any one time as in the preceding group, still preserves a constant high level, say of 104°, and in which the usual daily remissions are small or absent. But these are the very cases in which all writers seem to agree, that treatment by cold baths involves too much fatigue and excitement to be at all times applicable, and under these circumstances accessory measures must be adopted, such as cold sponging, wet-packing, light clothing, and antipyretic drugs, remedies which though not in all cases of equal efficacy with cold bathing, are, at any rate, many of them, free from its special disadvantages.

In conclusion, I would restate the points which I have endeavoured to establish in this paper:—

1. That the thorough cold-water treatment of typhoid fever is based upon what appears to be a one-sided view of the process of fever.

*

2. That the question is one which cannot be satisfactorily determined by statistics.

3. That a general opinion has gradually developed, which, whatever statistics may appear to prove, cannot be disregarded against the indiscriminate use of bathing, and in favour of its use in appropriate cases.

4. That, while not denying that in hyperpyretic cases cold-bathing is the most valuable of the known methods of treatment, in the less severe cases it stands only on the same level as many other antipyretic remedies; and

5. That the success of the treatment depends chiefly upon the clinical skill which recognises the proper circumstances for its use.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society of London.

Diseased Conditions consequent upon Malarial Cachexia.

(*Continued from page* 179.)

Treatment of Elephantiasis.

When we can get a scrotal or limb case early, and duly combat the fever and the local inflammation, principally by quinine and by the application of iodine (iodised oil and iodine paint—Webb), and by rest, especially in the inflammatory stage, as well as by mechanical support and bandaging (Dalton), we can often effect so much good that I used to encourage my students by telling them that, when they were in attendance upon patients in independent circumstances, who would take care of themselves and obey instructions, extensive growth might always be checked, and that such cases might be dealt with hopefully.

When the disease occurs in Lower Bengal, I certainly have faith in the efficacy of quinine *in the earliest stage* of these growths, but my friend Dr. Francis Day, observed, as the the result of great experience of the Cochin disease, "Anti-periodics I have found of no utility except in their tonic action. I am so convinced, from experience, that large doses of quinine are only a waste of medicine, that I never employ them."

Fayrer shows that a complete change of climate, far inland to the native; to a temperate climate to the European, is a distinct indication. He observes that it has occasionally been observed in the rare cases in which elephantiasis affects Europeans, that, returning to Europe, they have, after a time, lost the disease, and almost, if not entirely, any hypertrophic changes that may have occurred. Webb gives the case of a native of Bengal, in whom the disease remained stationary during twenty years' service at Agra. On his return to Calcutta, he, in a few months, had repeated attacks of the fever, with swelling and inflammation of the scrotum, and, much against his will, had to go back to the Upper Provinces. Thus his disease treated him as my asthma did me on two occasions.

Dr. Day's Cochin experience fully confirms this observation. A native left that place, elephantiasis having been ineffectually treated. He went to sea, was absent eight years, and returned perfectly restored to health, all signs of effusion having quite disappeared. Shortly after this elephantiasis again attacked him. A person went forty miles inland, staying two years; the disease quite left him, and, though he returned to Cochin and resided there for a long time, it did not reappear. On the other hand, a child was sent away, above a hundred miles inland, but the disease did not leave her. Most growths are obstinate in growing children; Dr. Day enjoins a tonic treatment, in addition to the change of residence, for the eradication of the cachexia. When the mischief has gone far, as it too generally has when cases come to us, the tumour having attained a permanent weight of pounds, removal by the knife is alone effectual.

Dr. G. R. Ballingall[22] urges early removal by knife when the disease is progressing rapidly and is attended with recurring febrile attacks, to prevent impairment of the constitution.

All operators—Webb, Fayrer, Day, Ballingall, &c.—agree that, with the ablation of the growth, fever ceases. Day gives an exceptional case, which proves the rule—elephantiasis existing in another limb, fever recurred after an operation

Frequently, in Bengal, empirics declare that they can effect a cure without recourse to the knife. They remove a great deal of fluid, either by bandaging or by the application of the *gool*, but without the slightest benefit. Indeed, whatever condenses the tumour, hardening it by superinduced inflammation, and produces adhesion between the integument and the testes, as the *gool* treatment often does, embarasses the operator, imperils the testicles, renders the operation tedious, and places the patient in great danger of death by hæmorrhage.

I regret that, although the search at first seemed easy, I have not been able to discover the name of the surgeon who first dared, in these cases, to remove the whole integument of the genitals, trusting that nature would, as she does, cover the exposed parts in a few weeks with new integument, extended from pubes, thighs, and perineum, and supplemented by granulation. It will be recollected that, in operating upon the Chinaman Hoo Loo, at Guy's Hospital, in 1831, Mr. Key lost so much time in endeavouring to save the genitals and to dissect out flaps, which would either have sloughed away or reproduced the growth, that the patient died from hæmorrhage. Calcutta surgeons made flaps then, and for some years afterwards—at least up to 1842. Dr. Ballingall leaves flaps where, as frequently happens in the form of disease prevalent in Bombay, the prepuce is unaffected, and the skin at the sides, drawn down from the abdomen and thighs, appears healthy. This, he finds, facilitates healing, and in no case has inflammation reappeared in the flaps. I have never seen, in a multitude of Bengal cases, one in which healthy skin appeared to be available to form flaps. But, of late, Dr. Kenneth McLeod, of Calcutta, has employed a flap operation, successfully, doubtless in cases where there was more or less healthy skin available.

Mr. F. H. Brett, of Calcutta, was the first surgeon who succeeded, in 1837, in preserving the genitals in removing a tumour as large as Hoo Loo's. We sometimes hear of a wretched native, who, having been thrown down, is dragged along by the scrotum until the whole integument is torn away. The surgeon may have seen such a case, and may have noticed how well loss of this integument by infiltration of urine is repaired, or the flaps may have sloughed in some of his cases, when he must have observed that Nature did far better without them. Still, when we consider that, in many of these cases, the denuded cords are half a yard long, we cannot but accord honour to him who first performed this operation. A still higher meed of credit is due to my friend, Mr. Samuel Bowen Partridge, F.R.C.S., for his admirable adaption of Esmarch's bandage in the removal of these tumours.

I saw my friend Sir Joseph Fayrer remove a scrotal integument which, with its fluids, weighed rather more

[22] "Scrotal Tumours in Bombay." — *Bombay Med. and Phys. Trans.*, 1859, p. 1.

than the man did. The man weighed one hundred and eight pounds; the mass, with its fluids, two pounds more. I am not sure how large a tumour has been removed with perfect success. Mr. Partridge reported, in 1880,[23] that the wound was cicatrising after the removal of a mass which weighed 111 pounds, exclusive of serum (of which there were doubtless enormous accumulations in the tunicæ vaginales) and blood.

Dr. James Irving has recorded the particulars of a case[24] in which the excised mass weighed, without its fluids, 136 pounds. The testicles were not saved. Dr. Irving cites the case of a Jew, at Gibraltar, from whom Mr. Hugh Fraser removed a scrotal tumour, weighing 150 pounds. The penis and testes were preserved, and the man made a perfect recovery. This was probably the largest tumour ever removed with success. But larger scrotal growths have been removed unsuccessfully, or with uncertain result. Dr. Irving reported a second case in which he removed a tumour, weighing 152 pounds without its fluids (later it became customary to weigh the patient before operating). The man lived seventeen days, and did well until the fifth day. His death was caused by severe attacks of intermittent fever and diarrhœa. Mr. Irving cites Samuel Cooper for a case of uncertain issue, in which a scrotal tumour, weighing "about a hundred kilogrammes," or 224 pounds, was removed.

Of 193 cases of scrotal elephantiasis operated on in the Calcutta Medical College Hospital, 18·2 per cent. proved fatal.[25]

In his "Treatise on the Diseases most frequent in the West Indies," published in 1726, Richard Towne says, of Barbadoes, that "Amputation of the diseased leg has been performed many times, but has always failed of a cure, for the disease constantly takes possession of the remaining leg." They did not know quinine then.

Sir Joseph Fayrer has shown[26] that ligature of the femoral artery has been fairly tried in India, but with no permanent improvement: "The disease returned to its original dimensions when the patient resumed his usual mode of life."

The natives of Lower Bengal often suffer, in malarious fever, from a very troublesome congestion and swelling of the Schneiderian mucous membrane. In this *Nakra* they consider that they obtain relief by thrusting a prickly grass up the nostril, so as to cause bleeding.[27]

Malarious Influence in cases of Wounds, &c.—I much regret the loss of a note of the observation made by an English surgeon (I think Mr. James Arnott), to the effect that, in England, surgical fever is apt to assume the periodic character in patients from marshy districts. We have abundant evidence of this fact in Bengal. Again, Sir Joseph Fayrer gives, in his second Croonian Lecture, some most interesting observations by Mr. Eccles, a surgeon of the Stafford House Ambulances during the late Russo-Turkish campaign, on the effects of malarial fever on wounds. Sir Joseph's own experience confirms that of Mr. Eccles. I saw, in my colleague's wards, the cases of death from *Urethral Fever* and *Gangrene from Wasp Sting* to which he refers in the following quotation: "The mere passing of a catheter in a comparatively healthy man has been followed by paroxysms of fever and deposits of fibrine in the pulmonary artery, which have proved rapidly fatal. The slightest wounds have, in those more deeply affected" (by malarious cachexia), "been followed either by gangrene or by hæmorrhage — the abstraction of a tooth, by necrosis of the jaw; a pimple on the face, by gangrene of the cheek; or the sting of a wasp, by gangrene of a limb—all proving the low vitality and tendency to disintegration of the tissues n this diseased condition."

A few remarks upon *Urethral Fever*, depending upon paludal influence, as it occurs in India and in England, will be found in the *Medical Times and Gazette*, vol. ii., for 1883, p. 501.

Puerperal Fever.

It was remarked by Lind, in the last century, when Calcutta and the other Presidency towns were very unhealthy, that, in India, European women in general enjoyed a much better state of health than the men, but that child-bearing was, in his time, peculiarly fatal to them in Calcutta; on which account he considered that it would be advisable for them to retire to a more healthy situation at the approach of their delivery. In the absence of more explicit information regarding the prevailing causes of death, we may state the probability that *post-partum hæmorrhage* destroyed many who were the subjects of neglected malarial cachexia. This dangerous accident is still always so much to be dreaded in India that I never omitted to have a sheet-binder placed under the patient from the first, and to give a full dose of ergot as soon as I knew that the child was descending quickly. Clarke, writing in 1770, mentions putrid puerperal fever as extremely common in Bengal. The Hindoo women, who, at the time of their confinement, are, in many cases, placed apart in small, damp, ill-ventilated rooms, artificially heated, are still very liable to puerperal metritis, pelvic cellulitis, and peritonitis. History contains only too abundant evidence of the fact that, in mediæval England, the lives of even royal ladies were frequently sacrificed under a similar practice of "lying-in" in unventilated castle chambers, over-heated and scrupulously closed against every in-draught of pure air. This was, probably, one of our many customs learnt in the Crusades. In 1836, the surgeon to the Calcutta General Hospital wrote[28]—"Puerperal Fever, in its severe form, is a rare disease in Bengal." Mackinnon, who, previously to the appearance of his great work, was stationed at Tirhoot, Dinapore, and Cawnpore, spoke of true puerperal fever as rare—he believed totally absent—in India.[29] Until of late years, within my knowledge, Lower Bengal was nearly free from erysipelas, and puerperal fever was not common in the obstetric wards of our hospitals. When erysipelas became very prevalent in Calcutta, in June, 1874, I inquired of Dr. Charles whether there was any puerperal fever in his wards. He replied that they were particularly free from this disease. Shortly afterwards, so many cases occurred among his patients, that I had to provide accommodation for him in a separate building.

Dr. De Renzy states[30] that Abbotabad, in the Punjaub, has long had a bad reputation for puerperal fever. He thinks this may be attributed to the practice of washing the Europeans' clothing in the watercourse which is the natural drain of the native town.

Malarious Post-Partum Fever.

At Chittagong, thirty years ago, and also in Calcutta subsequently, I had in my practice frequent illustrations of the fact that there, soon after delivery, both European and native women, often get fever, generally with arrest of the milk and lochia. At first these symptoms were equally terrifying to the patient and the physi-

[23] *Indian Medical Gazette* for January of that year.
[24] *Indian Annals of Medical Science*, No. xix., p. 70.
[25] Fayrer.
[26] "Tropical Dysentery and other Diseases," p. 273.
[27] "*Bardolph.* Yea, and to tickle our noses with spear-grass to make them bleed."—*King Henry IV., Part 1st, Act ii., Scene 4.*

[28] *Ind. Jour. of Med. and Phys. Science*, vol. iii., p. 117.
[29] *Op. Citat.*, p. 381.
[30] *Trans. of the Epidemiological Society*, 1882-83, p. 35.

cian ; but I soon found that no other severe symptoms were developed, and that quinine speedily restored health. I had many of these cases ; but not one that did badly or long refused to be controlled by the specific.

I was much interested, in 1880, by reading[31] the report of a discussion upon this fever as it occurs in the neighbourhood of New York. It is called by Professor Fordyce Barker "Puerperal Malarious Fever." As in India, it stands quite apart from all the forms of deadly "Puerperal Fever." I prefer my own nomenclature for the Bengal malady. Professor Barker observes that it may occur from twenty-four hours after a normal labour up to completion of puerperal recovery. Only one of his seventeen cases was fatal, on the 47th day after confinement. He gives half-ounce doses of Warburg's Tincture every four hours until the fever is entirely abated, continuing it, in diminishing doses, until convalescence is perfectly established. He finds it a far more effectual and speedy remedy than the largest doses of quinine. In the discussion which followed the reading of Professor Barker's paper, Dr. Jones, who lives in a malarious district, said that he gives a dose of quinine on the day following confinement. Dr. Lusk considered that it is needful to remove these women from lying-in hospitals, as puerperal peritonitis and cellulitis begin to appear in other cases. Dr. Barker puts his patients on quinine immediately after confinement, from January to June, and continues it for ten days. Dr. Emmett referred to cases in which there were uterine hæmorrhage, sub-involution, cellulitis, &c., in women who had been living in malarious districts, and which could not be cured except by quinine. Professor Barker does not mention the lochia. Dr. Gillette speaks of "the purity of the lochial discharges" as a diagnostic point in these cases. In the Bengal disease, as I saw it, the lochial discharge was checked until the fever abated.

In 1839, Dr. Duncan Stewart, then of Calcutta, published[32] some very important remarks upon the predisposition of pregnant women to fever, and upon the great danger of *Bengal fever when occurring late in pregnancy*. He shows that it generally happens that, when labour occurs in the course of fever, it is *premature*. He cites the following striking observation from Twining :— "I hardly deem any part of the observations I have to offer concerning the peculiar nature and treatment of the remittent fever of the rainy season in Bengal of more importance than the caution I have now given respecting the hazard of either bleeding or applying leeches at a late stage of the paroxysm, after the disease has been returning daily above a week, and when the patient is much exhausted. I have met with several instances where the application of leeches was, from trivial causes, delayed for three or four hours after they were ordered, and then put on towards the conclusion of the paroxysm when arterial action was subsiding—the patient being in a state of languor and anxiety, and the skin perspiring freely—and death has been the consequence.

"If," says Dr. Stewart, "such results have followed the loss of a minute quantity of blood under ordinary circumstances, will it surprise any one that the occurrence of even natural labour at the end of a paroxysm of fever should be matter of more than ordinary anxiety, or that the abstraction of so large a portion of blood as must attend even the best conducted delivery should, at such a time, be eminently perilous ?" I have seen grave remittent fever, in Bengal, passed through under quinine, by which a cure was effected some weeks before delivery, with perfect immunity both to mother and child, but a more anxious case for the physician it is hardly possible to conceive.

[31] *Med. Times and Gazette*, March 20, 1880, p. 327.
[32] *Ind. Jour. of Med. and Phys. Sc.*, vol. iv., p. 587.

I cannot find a more appropriate conclusion, not only for this particular subject, but also for my review of Indian Paludal Fevers, than the following striking passage from the writings of Dr. Barnes :[33]—"The pertinacity of ague is well known. We are accustomed to see marks of its abiding influence long after the fits have ceased, long after the patient has lost all consciousness of suffering. But I have seen ague fits reproduced years after under the condition of pregnancy. We cannot fail, then, here to see, that there lingers somewhere in the system some change, the stamp of the original disease ; and we may fairly presume that this change is in the nervous centres. Perhaps the precise organic change may long baffle the skill of the microscopical analyst to detect ; but there it is proved by anticipation to exist, as real a thing as the planet discovered by Adams and Leverrier before it was seen by mortal eye through the telescope."

Note on the Subcutaneous Injection of Quinine in Malarious Fevers.

My friend, Brigade-Surgeon J. B. Scriven, read a highly valuable summary of his large experience in this practice at the International Medical Congress at Amsterdam last September. He shows that the use of a solution of thirty grains of quinine in half an ounce of water, with eight or ten drops of dilute sulphuric acid, was potent in checking the fever, but led to numerous ill-results, such as abscess, ulceration, and tetanus. Consequently, this mode of using quinine was prohibited in the European army in India. Mr. Scriven also abandoned its use in natives for the same reason. Subsequently, Dr. J. E. T. Aitchison and Mr. Scriven had remarkable success in the use of a solution containing quinine a drachm, tartaric acid half a drachm, and distilled water sufficient to make three fluid drachms, Buzzard's syringe being employed. He was careful to select a spot, usually at the back of the fore-arm, where no cutaneous vein became visible after grasping the arm above the elbow, and to introduce the point of the instrument with the opening *away* from the skin, so that the solution should escape towards the muscles instead of towards the surface. He employed this method for four years, in about eighty cases, without a single instance of tetanus, abscess, ulceration, sloughing, or any untoward result. As a rule, a little inflammation of the fore-arm followed. The arm being kept in a sling and cold lotions being applied, this subsided in a few days. In an adult, Mr. Scriven injects from fifteen to twenty minims of the solution—fifteen minims containing five grains of sulphate of quinine. In one case, of a child under a year, he injected seven minims. He especially recommends this practice in cases in which death is imminent, and a remedy is necessary that shall produce a rapid and decided effect. Mr. Scriven informs me that he has adopted this course "in several cases of fever in which there was great exhaustion, the surface covered with a cold perspiration, the pulse scarcely perceptible, and every appearance of approaching death, and these cases have recovered without any recurrence of the fever."

[33] "Inaugural Address," *Medical Times and Gazette*, Aug. 18, 1877, p. 168.

(*Malarious Fevers concluded.*)

MENSTRUATION IN ST. PETERSBURG.—Dr. F. Weber publishes, in the *St. Petersburger Medicinische Wochenschrift* (November 7th, 10th, and 14th), an elaborate statistical paper on the condition of menstruation as observed among the women of various classes in that capital. The paper is far too long for our purposes, but we may advantageously direct attention to it as a document likely to be highly interesting to those engaged in similar researches.

CRITICISMS ON SIR W. GUYER HUNTER'S VIEWS WITH REGARD TO THE OUTBREAK OF CHOLERA IN EGYPT.

I.—By Surgeon-General DE RENZY, C.B.[1]

The evidence adduced by Surgeon-General Hunter seems to me altogether inadequate to warrant the conclusion that cholera has been endemic in Egypt since 1865. The facts he brings forward amount simply to this, that diarrhœa has long been a very prevalent and fatal disease in Egypt, and that he had received reports of 23 isolated cases which bore a strong resemblance to cholera, and which had occurred in the interval between 1866 (the year following the epidemic of 1865) and 1882. Of the 23 cases reported, four proved fatal and nineteen recovered, an extremely low rate of mortality for true cholera. The details of the cases are most meagre, and are supplied by the memory of the reporters, unsupported by written notes made at the time. Evidence of this kind may be sufficient for those who, like Sir W. G. Hunter, believe that cholera is endemic in England, but it will not satisfy those who do not think with him on that point.

Judging from the behaviour of cholera in India, it seems to me quite incredible that, if the disease had really been endemic in Egypt, Sir W. G. Hunter would have failed to discover evidence of some explosive outbreaks having occurred in different places in the long interval between the cessation of the epidemic of 1865, and the close of 1882. Egypt seems to be in a state very similar to that of India, as regards the absence of skilled medical men in the villages. I should not, therefore, expect to be able to get good professional accounts of village outbreaks, but surely, if cholera epidemics had occured with the explosive suddenness which is so characteristic of the disease, the fact would have left its mark in the death-registers. I have often been able, by taking this characteristic as a clue, to bring to light outbreaks of cholera in the Punjâb, which, from the timidity of the people, had not been reported as such, and which had escaped notice. Is it credible, that if such outbreaks had occurred in Egypt, Sir W. G. Hunter would have to rely upon the meagre details of his 23 isolated cases to support his conclusion? Even if there were no death-registers, I cannot believe, that if cholera explosions had occurred, the village memory would have been unable to give some account of them, for the minds of peasants are singularly retentive of the impressions made by such occurrences. In the Punjâb, I have been able to get information of cholera epidemics that had occurred thirty years before the British annexation of the province. The fact that Sir W. G. Hunter had heard nothing of such explosive outbreaks, appears to me very strong evidence that cholera was not endemic in Egypt, for if it had been, the people lived in such utter defiance of sanitary laws, that the disease must have given far more decisive evidence of its presence than Sir W. G. Hunter's 23 isolated cases afford.

Sir W. G. Hunter says, "Cholera is recognised by a certain group of symptoms, and it is merely begging the question to say that a particular case though presenting all the phenomena of cholera cannot be cholera because it does not propagate itself." It appears to me that Sir W. G. Hunter does not make sufficient allowance for the difficulty of diagnosing cholera. It is one of the most difficult of all diseases to diagnose. It sometimes occurs in so mild a form that it does not prevent the patient from attending to his business. It is then regarded as simple diarrhœa, and its true nature is only discovered when some persons who have been in contact with the patient take the disease in an aggravated form. As an illustration of the difficulty of diagnosing cholera, I was once sent for by a very experienced practitioner to see a case in consultation which he regarded as cholera. It turned out to be one of poisoning by arsenic. There are many causes which produce symptoms very like those of cholera. I remember a sergeant of the 101st Regiment, at Multan, who was supposed at first to have cholera. It turned out that he was poisoned with slightly putrid salmon. The medical man who was taken in in this case was one of the ablest medical officers that the Indian Medical Service has ever had, and a man of great experience. Putrid meat, putrid fish, putrid fruit, and foul water often produce symptoms hardly distinguishable from those of cholera. Further, every medical man of large Indian experience must have seen cases of intermittent fever which, in the cold stage, are remarkably like cholera. Such cases used to be very common at Peshawar. But though the outward phenomena were almost identically the same as those of cholera, there must be an essential difference between them, as is shown by the fact that fevers with choleraic symptoms have a small rate of mortality and do not occur in batches.

Surgeon-Major McNally's evidence, quoted by Sir W. G. Hunter, appears to me of great interest and importance, as giving a very probable clue to the true source of the epidemic. Dr. McNally states that diarrhœa with vomiting had existed since January, 1883, and had proved fatal to 200 persons in the neighbourhood of Zagazig, and that great mortality from cholera had occurred at Chibin-el-Kom previous to the recognition of the disease at Damietta. In one village near Binha "there had been fifteen deaths a day." Here we have evidence of one of those explosive outbreaks I have already referred to.

Now, in connection with this evidence, it is necessary to remember that towards the close of 1882 there had been a severe epidemic of cholera at Mecca, and doubtless there were numerous bands of Egyptian pilgrims there during the outbreak. These pilgrims would have returned to Egypt about the time that Dr. McNally says deaths from diarrhœa with vomiting became rife at Zagazig. Sir W. G. Hunter appears to have made no enquiries about these pilgrims. Indeed, he entirely ignores the Mecca epidemic as a possible source of the Egyptian epidemic. Sir W. G. Hunter's reports are of the greatest value, on account of the light they throw on the sanitary state of Egppt, but I think he was too easily satisfied that the epidemic had not an external origin. When the first suggested clue to an external source failed with the demonstration that the epidemic could not possibly have originated from the stoker of the steamer *Timor*, he appears to have given up the search for an external origin altogether, and to have adopted the conclusion that the gross neglect of sanitary measures afforded a full and sufficient explanation of the epidemic. It may be that an investigation of the condition of the returning pilgrims would have thrown no light on the origin of the epidemic; still I think it is greatly to be regretted that the investigation was not made. Indian experience shows what apt media pilgrims are for the dissemination of cholera, and Egyptian pilgrims I imagine do not differ greatly from Indian pilgrims.

Indian pilgrims have a strong prejudice in favour of carrying home with them the clothing of relatives or friends who die in their company on a pilgrimage. If the Egyptian pilgrims have the same prejudice, the fact would go far to explain the introduction of the

[1] Communicated to the Epidemiological Society.

cholera virus from Mecca into Egypt. The sanitary authorities at Suez would doubtless say that the quarantine arrangements at Moses Wells exclude the possibility of the virus being introduced by pilgrims. It would have been very satisfactory to have had a detailed account of these quarantine arrangements founded on personal observation by a man of Sir W. G. Hunter's experience and penetration. My own experience has entirely destroyed my faith in the protective value of quarantine. Quarantine, in my experience, is a powerful means of throwing doubt and obscurity on the origin of epidemics of cholera, but no reliance can be placed on it as a means of preventing them.

Supposing the cholera virus to have been brought into the Lazaretto by the pilgrims, the railway to Zagazig afforded the means of conveying it in a few hours to that place. It may be said that if the virus had been introduced by pilgrims, its presence would have been felt long before the explosion at Damietta. But does not Dr. McNally's report show that some unusual force had begun to act on the health of the people long before the date of the Damietta outbreak. In the Punjâb, where the disease can no more be said to be endemic than it is in England, it often takes several months to extend itself over the province after its virus has been introduced through the agency of pilgrims or other means.

In conclusion, I submit that the evidence adduced by Sir W. G. Hunter is not sufficient to warrant the conclusion that cholera has long been endemic in Egypt, nor to exclude the probability that the virus of the disease was introduced through pilgrims from Mecca.

II.—By Brigade-Surgeon C. A. JESSOP, M.R.C.P.[2]

With the kind permission of the President and members of this Society, I should like to say that, while agreeing with Sir W. G. Hunter as to the necessity of improved sanitation for stamping out cholera and relying less on quarantine, I, nevertheless, venture to believe that when cholera becomes epidemic some espionage is peremptorily required. For, although cholera does not present the virulence of direct contagion characterising small-pox, yet, like enteric fever, a patient is capable of giving the disease by his alvine evacuations, and of generating around him a "halitus," which has a septic influence on persons in whom their is a receptivity for the poison. This "halitus" increases in virulence by collecting cases into one centre, and may produce an epidemic when telluric and atmospheric conditions are combined; further, it is capable of conveyance by healthy foci.

In the course of six epidemics I remember two cases of communication from sick to healthy. One was a corporal of the Scots Guards, in the Crimea, who contracted disease from hand-rubbing patients. The second, an orderly of the Medical Staff at Hong Kong, under the same circumstances. I may just observe that cramp is readily controlled, either by turpentine internally, or chloral hydrate subcutaneously, and thus the risk hand-rubbing entails is avoided.

The epidemic at Hong Kong began among troops on passage from Canton, 16th June, 1858. They embarked at 6 a.m., proceeded down river, nine miles, in gunboats, to Whampoa, and were crowded on board s.s. *Adventure*, with high bulwarks. The weather was intensely sultry and hot. Many sunstrokes had occurred at Canton, but there was no cholera among European or native troops. We arrived at Hong Kong, 60 miles off, the same evening. In the course of the afternoon, cases of fever, both in the cold and hot stage (chiefly the latter) occurred, attended with vomiting, purging, cramp and cyanosis. Cholera was not thought of. It was only when the dejections became rice-water in character, with husky voice and collapse, that such a suspicion arose. Cases increased, and were sent ashore. The troops disembarked on the 18th, and the vessel was fumigated, and they re-embarked on the 22nd, bound for the Peiho. Surgeon Dawnay also re-embarked, and ultimately died of the complaint at sea. The outbreak at Hong Kong was not of long continuance. The number of admissions are unknown; there were thirteen deaths among Europeans, and some among gun Lascars. I attributed the epidemic to exposure, over-crowding, fatigue and fasting, with probably impure water, drunk whilst the troops loitered in a hot sun at Whampoa. It was clearly an epidemic arising *de novo*.

At Mhow, a cholera epidemic occurred in June, 1865, and a thick, yellow atmosphere prevailed; in my regiment there were five admissions and two deaths; several among the native followers; one of the cases was my surgeon, ultimately invalided for cardiac debility consequent on this complaint. The epidemic died out in consequence, as it appeared to me, of the hot, dry, strong breeze which prevailed at that season.

At Meerut, in August and September, 1872, epidemic cholera occurred, heralded by dengue. The summer had been close and oppressive with the usual fever cases. Suddenly, at this time, every case assumed a typhoid character. Dengue came first, then cholera selected its victims. In my own regiment I had five fatal cases of typical cholera. The malign influence filled the hospital with cases of pneumonia and fever with typhoid symptoms, and cerebro-spinal fever followed by acute dysentery. Dengue was epidemic the whole time. Although deaths were popularly put down to cholera, yet pathologically, as far as my own regiment was concerned, they died from other causes, for with the exception of a woman, who died from cholera, and a man from low fever, I made *post mortems* in all cases, and examined the spinal cord in five out of nine. I did not allow cholera cases to be treated in a general ward, but in tents, to avoid risk and alarm to other patients dangerously ill, who in their turn were removed to tents.

My experience of cholera coincides with that of Dr. Bellew, quoted by Dr. F. N. Macnamara, at page 441, of his "Himalayan India, its Climate and Diseases," 1880.

III.—By THEODORE ACLAND, M.D. Oxon.[3]

Dr. Theodore Acland expressed his admiration of the indefatigable manner in which Sir W. G. Hunter had worked to collect the information contained in his reports, and supplemented his description of the sanitary conditions prevalent in the larger towns by narrating cases which had come under his own observation; but the speaker could not agree with Sir W. G. Hunter in thinking that, because no particular organism capable of transmitting the disease had been demonstrated, therefore cholera was not contagious; and he instanced the case of syphilis and scarlet fever, both in their several ways virulently contagious, but in neither of which a "contagium" had been isolated. He then referred to enteric fever—a disease which, as a rule, is spread by the contamination of potable fluids by the dejecta of persons suffering from the disease, yet capable also of being directly communicated to those brought into close contact with the sick, such as nurses. The general wave of the epidemic had been traced by Sir W. G. Hunter; a local observer could only give an account of some of those side eddies

[2] Communicated to the Epidemiological Society.

[3] Abstract of a speech delivered at the Medical Society, on March 3rd, 1884.

which, although modified by the same laws, are without doubt subsidiary to the more general conditions affecting the whole course of an epidemic, such as temperature, moisture, or other climatic conditions. There were reasons for supposing that cholera could be spread from one infected district to another, or from one body of men to another, by means which were in some measure under control. In support of this view, the following facts were adduced :—

1. That of a total of 86 cases of cholera, occurring in the Egyptian army, no less than 59 were in two battalions, the 6th, and the artillery, which were situated, the one at Jörah, on the east, the other at Gizeh, on the west bank of the Nile, to the south, and, therefore, to leeward of Bulaj, the most infected district in Cairo. The two regiments were some miles apart, they drew their water supply from above Cairo, and no case occurred amongst the troops at Jörah, until after the evicted and cholera tainted inhabitants of Bulaj, had been deported to a spot about four miles directly to windward of their camp. On the other hand, amongst the whole seven regiments quartered on the north, and, therefore, to windward of Cairo ; there were altogether a less number of cases, than in either of the two battalions which had been stationed to leeward.

2. That at the time of the epidemic, there were in Egypt, 188 officers attached to the English army, and 196 men belonging to the Army Hospital Corps, but while only three of the former suffered from cholera, no less than eighteen of the latter were attacked, a number three times as great as the average for the main body of the troops, and six times as great as that of the officers, who were exposed to the same climatic conditions, but who were not brought into such close contact with the sick.

3. Lastly, as regards the Egyptian army, of four English officers much engaged in the hospital, one had suffered severely from cholera, another from vomiting, purging, and cramps, but no collapse, and a third, after severe diarrhœa, had a well-marked attack of enteric fever. Of the native officers, two only were attacked, but they both belonged to the artillery, and had both been active in bringing their sick companions to hospital. From these, and similar facts, the speaker thought that within the general wave of an epidemic, there existed side currents, due to the presence of suitable local conditions, which caused the spread of the disease from man to man in spite of the absence of proof of the existence of a definite contagium.

ON THE YELLOW PIGMENT FOUND IN THE INTESTINES IN CASES OF ARSENICAL POISONING.

By J. CAMPBELL BROWN, D.Sc., and EDWARD DAVIS, F.C.S.

It has frequently been recorded that a yellow colour has been obtained on the stomach and intestines of persons who have died from arsenical poisoning, after long interment.

It is not always stated to what this yellow colour is due ; but it has sometimes been attributed to the formation of sulphide of arsenic. Thus, in "Taylor on Poisons" the following passages occur : — "White arsenic slowly becomes changed to yellow sulphide, by the solution of sulphuretted hydrogen in the decomposition of the stomach or of its contents. It then leaves a deep yellow stain through the coats, and appears on the external surface." "In Mrs. Smith's case, the sulphuret of arsenic was discovered in the stomach fourteen months after interment."

"In the case of the Cheshams, the coats of the stomach were in both instances deeply dyed with large patches of yellow pigment, nine months after interment."

"In some cases the coats of the stomach and intestines, the liver, diaphragm, and even the bones of the spinal column, may be thus deeply stained of a yellow colour."

In "Reports of Trials for Murder by Poisoning," by Lathom Browne and Stewart, the following passage occurs :—

"In bodies long buried the arsenic is often converted into the sulphide by putrefaction, and then appears as a yellow coating."

No proof has ever been adduced, so far as we are aware, that the yellow substance is really sulphide of arsenic.

We have recently had an opportunity of examining a yellow substance, found in the circumstances referred to, in two bodies exhumed in January last, and think it desirable to place our observations on record.

One of the bodies was that of a young man, aged 22, which had lain in the grave upwards of three years. It was in a state of good preservation, the stomach, intestines, and viscera having decreased in size without losing their usual form and appearance. From the whole of the abdominal viscera, $3\frac{1}{4}$ grains of arsenic were extracted. The whole of the small intestines were coated internally with a bright yellow pigment, resembling mustard, as were also the greater part of the mesenteric vessels. The colour was visible through the walls of the intestines. It reminded one of orpiment, and in some places realgar. The other body was that of a girl, aged ten years, which had been in the grave more than thirteen months. The viscera were in a good state of preservation although contracted. From the abdominal viscera one grain of arsenic was extracted. The bright yellow pigment was distinctly present in the intestines and mesentery, although the quantity was not so great as in the previous case.

In another body, which had not been buried, no yellow pigment was found, although there was more than a grain of arsenic in the intestines.

In a fourth body, which had been in the grave less than a year, but in which the quantity of arsenic was probably not more than half a grain, the yellow pigment was perceptible, but the quantity was very small.

We collected a considerable quantity of the yellow pigment, weighing in the moist state between twenty and thirty grains. It was carefully tested for arsenic, and was found to contain no appreciable quantity of the metal. It certainly was not sulphide of arsenic. Nitric acid produced a play of indistinct colours similar to those produced in bile by nitric acid.

We found that the yellow pigment was readily soluble in chloroform, forming a bright and clear yellow solution ; less soluble in alcohol ; slightly soluble in strong ammonia, reprecipitated by hydrochloric acid ; and insoluble in water.

The chloroform solution left, on evaporation, a deep yellow residue. This yellow residue was reddened by strong hydrochloric acid, while nascent hydrogen from zinc and hydrochloric acid discharged the colour and dissolved the residue. Nitric acid converted it into a purple, then red, then brown substance. Sulphuric acid gave a temporary violet colour, quickly becoming brown. Sulphuric acid and pure sugar gave the violet-purple tint characteristic of Pettenkofer's test. The colouring matter, therefore, appears to resemble one of the products of decomposition of bile pigment.

These results do not prove that it is actually formed from the bile, but that it is composed of one or more organic substances, one of which is somewhat similar to one of the pigments said to be formed by reducing agents on an alkaline solution of bile.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES OF DIABETES, TREATED WITH NUX VOMICA AND MINERAL ACIDS.

By Dr. S. WILKS, F.R.S.,
Physician to the Hospital.

Case 1 (reported by Mr. P. James).—James W., aged 28, admitted March 13th, 1878. In December of the previous year he found he was passing an excessive amount of urine, eight to ten pints daily. He also found himself getting weaker and thinner; although his appetite increased, his weight fell considerably below that which it had been—twelve stone. He had constipation and other symptoms which usually accompany diabetes.

On admission, he was found to be organically sound, but thin. He was passing eight and a half pints of urine daily; his weight was eleven stone. He had had diarrhœa for a few days; for this a little opium was given, and when the diarrhœa was stopped he was put upon dilute sulphuric acid, cardamoms, and nux vomica, and was ordered the usual diabetic diet—that is, abstinence from farinaceous food. He gradually improved in strength, although some sugar was still found in the urine, the amount of which, on April 17th, was five pints.

May 5th.—Three pints of urine were passed; the patient is gaining in strength and weight.

May 16th.—Urine reduced to two pints seven ounces.

May 25th.—He left the hospital, the average amount of water daily being three pints of sp. gr. 1030, with a considerable amount of sugar. The patient asid he felt quite well, and weighed 171 pounds being, he said, three pounds heavier than he had ever been before in his life.

Case 2 (reported by Mr. H. P. Keating).—Wm. S., aged 22, a grainer, admitted May 5th, 1882. In the beginning of April he found he was suffering from excessive thirst, and noticed that he passed a large amount of urine. This continued up to the date of his admission to hospital. He had also been getting thin, although very hungry and eating well. The urine was said to contain more than 40 grs. to the ounce, and his weight was 121 pounds.

On May 14th, the urine was five pints in 24 hours, of sp. gr. 1037. He was put on the diabetic diet—animal food with green vegetables, with no bread or other farinaceous substances, and ordered for medicine Acid. Nitric. dil. mx., Tr. Nucis Vom. mxv., Tr. Aurantii ʒss., Aq. ʒj. ter die.

May 22nd.—Patient said he felt much better, and his weight was 124½ pounds.

May 23rd.—Urine 40 oz., sp. gr. 1040. Quantity of sugar per oz. 13·6 grs.

May 30th.—Patient's condition continued about the same. His weight was 129 pounds.

June 6th.—He expressed himself as feeling stronger and better. Weight 132 pounds.

June 20th.—Urine the same, 40 oz., sp. gr. 1040. Weight 135 pounds. He was then ordered, besides his medicine, Acid. Sulphurosi ℥j., Syr. Aurantii ʒss., Aq. ad Oj. for a drink during the day; and the medicine was changed to Acid. Sulph. dil. mx., Liq. Strychniæ mx. Inf. Calumbæ ʒj. ter die.

June 27th.—The urine is passed in somewhat larger quantity, and of less specific gravity. He has continued the acid drink which (as will be seen) contained a small amount of syrup. His weight was 138 pounds, and he expressed himself as much stronger and in better spirits.

July 12th.—His weight was 142 pounds.

July 22nd.—Urine three pints, sp. gr. 1030, 11 grs. of sugar to the ounce.

July 28th.—Weight 144 pounds. He left the hospital this day, having gained in weight 23 pounds during his stay.

After leaving the hospital he went to work, and did not, he said, remain strict to the diet as had been advised; but was not particularly thirsty until March of the following year, 1883, when he observed his legs swollen. He was very thin, his breath had a marked diabetic odour, his urine contained besides sugar a little albumen. He also had a large boil on his cheek. He was soon after seized with pain in the abdomen and in the side, and died suddenly.

The *autopsy* revealed no marked lesions.

Case 3 (reported by Mr. A. Linnell).—Wm. N., aged sixteen, a painter, was admitted on February 6th, 1883. For two or three months he had been suffering from continual thirst, craving for food, loss of flesh and strength. He had also during that time passed large quantities of urine. He was a pale, thin, weakly looking lad; urine, sp. gr. 1040, and loaded with sugar.

He was ordered the diabetic diet, and for medicine Acid. Nit. dil. mx., Tr. Nucis Vomicæ mx., Tr. Chloroform. mx., Aq. ʒj. ter die.

February 15th.—He has passed 88 oz. of urine in the preceding 24 hours, sp. gr. 1040; and his weight is 78 pounds.

From this date the amount of sugar steadily diminished, although varying in amount from time to time.

March 20th.—Amount of urine passed 70 oz., and sp. gr. 1030.

On April 4th, a little more than this. At the beginning of June the average quantity was 40 oz., and sp. gr. 1030.

He had been gaining flesh steadily since his admission, and on June 14th, when he left the hospital, he weighed 91½ pounds. His urine was 44 oz. in quantity, with a sp. gr. 1030.

Remarks.—The above cases are samples of a class in which, I believe, the treatment adopted was attended by a real and substantial benefit; whether indeed by any direct influence on the disease itself, or whether by only counteracting its effects I will not venture to say. As is well known, a very large number of remedies have been tried in diabetes, more especially those which from their supposed physiological action, might be considered instrumental in getting at the root of the disease, either through the nervous system or by affecting chemically the composition of the blood. None of these, however, have shown themselves to be of any value. The only remedy indeed for which universal consent has pronounced a favourable verdict is opium; but it is not maintained, I believe, that this drug is curative in the ordinary acceptation of the term. It is possible that opium has no special action on the disease, but that its good effects are due to the general sedative influence which it exerts over every function of the body. It arrests physiological action, both of a normal and abnormal kind, and therefore has a power over such a disease as diabetes, whether we regard this with Bernard as due to an intensified physiological action, or with Pavy as a distinct process of a true pathological character. For my own part, in considering the best remedies for diabetes, and putting aside opium and its substitute codeia, I have always regarded those as the most useful which have long possessed a repute in stomach and liver affections. For example, nux vomica has had a universal reputation for its power in atonic,

and some other forms of dyspepsia, whilst the mineral acids in like manner have preserved their character for good both in hepatic and gastric disorders. These remedies and analogous ones I have usually given in diabetes, and, in my experience, with considerable more advantage than soda, ammonia, iron, and many other drugs. I have given nitro-hydrochloric acid with so marked an improvement in the symptoms, that I have had a suspicion whether the mineral acids may not have had some special chemical action over glycogenic substances, or in some other way affected the metabolic processes which are in operation. With this idea I have made patients drink in considerable abundance sulphuric and sulphurous acids over and above the smaller dose contained in their medicine, and the reader will see for himself by referring to the reports of cases with what effect. Besides the above reported examples I have had several others, both in hospital and private, which appear strongly to vindicate my statement as to the value of the remedy, but I consider these three cases are sufficient to show that my plan requires much more extended application or trial. An easy explanation for the good result obtained may be found in the supposition that the patients ate more food whilst under treatment, a good animal diet being substituted for that which before ran over off as waste; or if this did not hold good, and the patients merely abstained from taking glycogenic substances, that the arrest of the sugar-forming process, by cutting off the supply of the material, was in itself a positive advantage, since the circulation of the sugar in itself is detrimental to the healthy functions of the body. For my own part I cannot think these explanations sufficient to account for my results, and therefore believe that a positive good was effected by the remedies; the patients seemed to be in better condition and were gaining more weight, although they still excreted a large quantity of sugar, than others who took opium, and in whom the sugar was reduced to a minimum.

Of course, when speaking of diabetes, I refer to the simple form of the disease in young people, for the glycosuria of older persons seems to be of an altogether different nature; at all events as regards its results. If a summary be made of all cases indiscriminately, no conclusions of any value can be arrived at, seeing what a different course diabetes pursues in the young and old. In the former the tendency is sooner or later towards a fatal termination, whilst in the latter the presence of sugar in the urine is often found in those who are suffering from mere dyspepsia or gout. I have in my note-books cases of many persons, mostly men, who have been of a gouty constitution, have been free-livers, and in whom sugar has frequently appeared in the urine. Sometimes this has alternated with a discharge of free uric acid. I occasionally see an old gentleman, 70 years of age, who, being tired of dieting, takes ordinary food, and passes a large amount of sugar. This has been going on for some years, and he is in tolerable health.

Medicinal Powders.—M. Vigiér, an able pharmaceutical writer in the *Gazette Hebdomadaire*, draws attention, in the number for February 1st, to the deterioration which medicinal powders have undergone, since, in place of their former pulverisation at the retail pharmacies, they have been prepared in an impalpable form by wholesale establishments. He affirms that inferior products are frequently thus prepared, and look very satisfactory to the eye, while containing too little of the active principle. Aromatic substances, also, undergo deterioration by the preliminary desiccation they are subjected to prior to this minute pulverisation. Such pulverisation is not, in fact, required, and may even be detrimental; and the Committee of the Paris Codex, entertaining this view, recommend that sieves, having meshes of various sizes, shall be employed in the preparation of different medicinal powders.

Medical Times and Gazette.

SATURDAY, MARCH 8, 1884.

The Government Medical Act Amendment Bill was introduced into the House of Lords by Lord Carlingford early in the week, and was read a second time on Thursday evening. The Bill is exactly the same as it was when it left the Upper House last year, but Lord Carlingford proposes to introduce some amendments in Committee, the chief of which will have the effect of raising the number of the representatives of the Scottish Universities on the general board from three to five. In moving the second reading, Lord Carlingford said that the object of the Bill was to give greater security to the public that every practitioner should be reasonably qualified to practice. This was a matter of the least importance to all, and one which greatly concerned the credit of the medical profession. We are glad to see that on this point Lord Carlingford does not accept Professor Huxley's contention, that the objects of State intervention in medical affairs is solely to provide Government with competent officials and reliable witnesses in courts of law.

With the exception of the above but little of medical interest has been brought forward in either House of Parliament since our last. On the 28th February, Mr. Gibson asked "whether any steps had been taken by Her Majesty's Government since August last, to lessen the dissatisfaction existing in all ranks of the Indian Medical Service." To this, the Under-Secretary for India, Mr. J. K. Cross, replied that, "as he had said last year," in order to remove gradually the disadvantages of there being in that service more officers than there were substantive posts, the number of annual appointments had been reduced to the lowest pitch compatible with justice to students, and the future efficiency of the Department. This remedial measure was being continued; only ten appointments had been made to the Service last year, and this year also only ten would be made; and it was not intended to take any other steps to meet the grievances complained of. Mr. Cross' reply is anything but a satisfactory one. It in no way meets, in fact it entirely ignores, the great grievance of those junior officers, who, after several years' service, are still drawing "unemployed" rates of pay, even when in fact "employed." They justly complain that the expectations held out in the official memorandum by which they were induced to enter the service have not been fulfilled. That memorandum was withdrawn last year, and an "amended" one issued in place of it; but neither this proceeding, which is tantamount to a confession that the terms of the former document were not to be relied on, nor the diminution in the number of annual appointments in any degree remedies the injustice under which the junior officers labour. Mr. Gibson gave notice that he would call attention to the subject at as early a date as possible.

Mr. Mundella has received from the London School Board some reports on cases of alleged over-work in School Board schools, and is expecting other reports. When received, all the reports will be laid on the table of the House of Commons. Mr. Mundella is extremely unwilling to believe that there can be anything like over-work in any of the Board schools. He has insisted that if such a thing does exist, it must be rare; and it must be the fault of the teachers, or of the managers; but certainly not the fault of the Code. The New Code, he persists, is not only not more severe, but it is less so than the former Code was; and the intention, and he believes the effect, of it is to relieve young children from pressure of work. Moreover, the Department, he declares, expressly empowers teachers and managers to withdraw delicate children from examination, and steadfastly sets its face against everything approaching over-work and pressure. All this may be true, but the Department does not know, or has not taken care to remember, that what is really light brain work for healthy, well-fed children, brought up in decent surroundings, becomes very severe work for ill-clothed, half-starved children, dragged up in misery and poverty. And, further, the system of payment by results adopted by the Department, inevitably excites, if it is not meant to incite, the managers and teachers to work the schools at high pressure. We are glad, however, to learn from Mr. Mundella that the educational authorities are not quite satisfied with the present state of things, and are considering how they can best protect weakly children "from being over-worked during the year previous to examination." That will be a gain, but it will not be enough; all the children, and the pupil teachers, need protection from over-pressure.

The Secretary of State for War was asked on Monday last, whether any steps were being taken to carry out the recommendations of Lord Morley's Committee, with respect to the closer union of the Army Medical Department and the Army Hospital Corps. Lord Hartington's reply was as unsatisfactory as possible. He said, he hoped, in introducing the Army Estimates, to make a general statement of the intentions of the Government with regard to the recommendations contained in the report referred to. It will be remembered that last year the Government managed to escape all serious discussion in the House of Commons on those parts of the report dealing with the services of the Army Medical Department, by promising that opportunity for such a discussion should be given when the Army Estimates came before the House. But the vote for medical establishments and services was not brought on till at the very end of the session, and then Lord Hartington said, that it was proposed to go through the recommendations made by Lord Morley's Committee as soon as possible after the recess, and to consider to what extent they could be adopted; and he advised the postponement of all discussion until the action the Government might propose to take upon the report should be brought forward "early" next year. But "next year" has come, and Lord Hartington is still unable to make any definite statement whatever on the matter. He only "hopes" to make a general statement when the Army Estimates are introduced. Is any member of the Ministry ever "able" to give a plain answer to a plain question? Inability, in that respect, seems to be their most prominent characteristic.

The resolution proposed by Mr. Arthur Balfour in the House of Commons, on Tuesday, in favour of loans being made by the Public Works Loan Commissioners, for the improvement of the dwellings of the working classes, on easier terms than is at present possible, excited a long and not uninteresting discussion. To those, indeed, who had hitherto troubled themselves very little, if at all, about the manner in which the working classes are housed, the speeches made on this occasion must prove very instructive as well as interesting; but they contain nothing new to our readers; nothing new as to the magnitude of the evils that have to be remedied; nothing new as to the difficulties that have to be overcome; and nothing new, that is practicable, as to the means of overcoming them. Sir Lyon Playfair pointed out that one of the greatest difficulties in the way of remedial measures is the system of land tenure, by which numerous lessees may in succession take the responsibility as to the condition of buildings off the shoulders of the ground landlords; and that another and still greater difficulty is the want of unity of local government. This may be very true; but we trust that no one will think it desirable or possible to postpone the improvement of the dwellings of the poor till the land tenure has been reformed, and a Lord Mayor reigns over the whole metropolis. Sir Lyon Playfair gave much information respecting the historical side of legislation against overcrowding, and quoted very interesting statistics to prove how London in general has improved, and is now improving, in healthiness. Mr. A. Balfour also pointed out that in not a few respects the condition of our towns and cities has improved immensely during the last 40, 100, and 200 years; and Sir Charles Dilke, in his turn, remarked that the improvement has not been universal, and that while some districts have become healthy and less crowded than they were, others are as overcrowded as ever, or even more so than before. Sir Richard Cross, and some other Members, delivered themselves of good speeches; and the discussion ended in—nothing.

The supplementary estimates submitted to Parliament, include the sum of 600*l.* for Surgeon-General Hunter's expenses in connection with the cholera epidemic—not a bad investment either for Egypt and for science.

A general meeting of the Medical Society of London, was held on Monday last, the 3rd instant, for the election of officers and council for the ensuing session. The following gentlemen were duly elected: — President — Arthur Edward Durham. Vice-Presidents—John Brunton, M.D.; Alfred Cooper; Richard Douglas Powell, M.D.; Sydney Jones. Treasurer — Alfred Wiltshire, M.D. Librarian—

William Henry Allchin, M.B., F.R.S.E. Honorary Secretaries — Alfred Pearce Gould, M.S.; James Kingston Fowler, M.D. Secretary for Foreign Correspondence—Sir William MacCormac, D.Sc. Council—Samuel Benton; Thomas Lauder Brunton, M.D., F.R.S.; R. Brudenell Carter; Samuel Cartwright; John Cavafy, M.D.; Henry Radcliffe Croker, M.D.; John Henry Drew; Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S.; Heneage Gibbes, M.D.; F. de Havilland Hall, M.D.; Jonathan Hutchinson, F.R.S.; Edward Lund; Francis Mason; Edmund Owen; Isambard Owen, M.D.; Arthur Ernest Sansom, M.D.; Charles Brodie Sewell, M.D.; Thomas Gilbart Smith, M.D.; William Heath Strange, M.D.; William Henry White, M.D.

From the report of the Council, the Society seemed to be in a very flourishing condition. Reference was made to the new meeting room, and to the other alterations which had been effected on the Society's premises; they were pronounced by general acclamation to meet all possible requirements, and they reflected great credit on the sub-committee, who had carried them out. Sir Joseph Fayrer resigns his chair to Mr. Durham. His year of office has been an eventful one in the annals of the Society; and his successor will have difficulty in surpassing him. After the formal business of the general meeting was concluded, the ordinary work of the evening, viz., a paper on cholera, by Sir W. G. Hunter, was read and discussed. We have so recently referred to this subject, and given the author's views, as expressed at another learned society, that there is no occasion for further detail in this place.

The Pathological Society at their meeting, on Tuesday last, got through an unusually long programme, but no topic of very special interest was raised. Mr. Clutton and Dr. O'Connor exhibited instances of rare diseases, and the papers by Mr. Lane and Mr. Barwell elicited the fact that there is considerable divergence of opinion amongst the members on questions of pathology as well as in other departments of medicine.

The usual monthly meeting of the Obstetrical Society of London was held on Wednesday evening. The chief business of the evening was the discussion of an elaborate and careful paper by Dr. John Williams, on the corroding ulcer of the uterus. This disease, described by Sir Charles Clark, is so rare, that many writers of systematic works on gynæcology, have had to compile their accounts of it without ever having seen a case; and consequently many of them have either omitted it altogether, or confused it with epithelioma. Dr. Williams had been fortunate enough to meet with three cases, to observe them carefully for long periods, and in one of them to examine the affected parts *post mortem*. These three cases were described in full detail, drawings of the morbid changes were shown, the literature relating to the subject was summarised, and the nature of the disease discussed. Dr. Williams believed it to be identical with the lupus seen on the skin and on other mucous membranes; and in this view, Dr. Matthews Duncan, one of those who subsequently spoke, concurred.

In the course of the recent discussion, at the Medical Society, on the cold-bath treatment of enteric fever, the President, Sir Joseph Fayrer, handed round, as bearing on the subject, two sketches—one of which is reproduced below—which had been sent to him by Surgeon-General Townsend, C.B. They represent a plan of putting young children to sleep, followed in many parts of the Himalayas. "Near almost every village," said Sir Joseph Fayrer, in explaining the sketches, "there are one or more small channels by which the water from the neighbouring spring is conducted to the cultivated plots of ground for the purpose of irrigation, and these channels are, in parts, formed of troughs, hollowed out of fir-trees. A piece of bark or matting is laid on the lower of two of these troughs, and on this the infant, swathed in a large mass of clothes, is so placed that the water from the upper trough falls on the vertex of the cranium, and, glancing off thence, runs away under the bark or matting without further wetting the child or its clothes; or, if the stream is full and copious, the child is placed on the side of the channel, and a portion of the stream directed on its head by a large leaf or piece of bark, another leaf or piece of bark being arranged on the other side of the head so as to catch the water and carry it away. Children, so placed, will lie asleep for hours, and the mothers leave them while they go about their daily occupation. The child's head and face are more muffled up than appears in the sketches, little more than the vertex of the cranium, on which the water falls, being left uncovered."

The bath treatment of enteric fever, which, if not absolutely originated, was at least brought into prominent notice for the first time, in Germany, has lately been the subject of discussion at the Medical Society of Leipsic. No overwhelming consensus of opinion was brought to light as to the universal value of the treatment, although its acceptance would appear to be general. Its action, however, is differently regarded by many German authorities. The view, that the high temperature is to be looked upon as the important aspect in the clinical features of a case, and that the beneficial effects of cold or tepid water are wrought by means of reduction of temperature alone, is by no means generally accepted. A condition of extreme depression, accompanied by all the signs and symptoms

generally grouped together under the name of the "typhoid state," is not absolutely dependent either for its causation or maintenance upon a very high temperature. But it is precisely in these cases that the beneficial effect of bathing is most marked, and especially when cold affusion to the head is added to the general immersion of the body. The semi-unconscious and wholly apathetic state of mind is replaced by complete consciousness, and often some sign of intelligence and interest, whilst the tendency to bed-sores and other evidences of circulatory stagnation is unquestionably diminished. It is evident that all these phenomena are but signs of an improved vaso-motor excitability; but opinions will probably remain, as they now are, divided, as to the precise manner in which this improvement takes place.

A PATENT of nobility has just been granted to Professor Frerichs, in Berlin. This recognition of the merits of one of the foremost clinical professors of the present day has been received with great satisfaction in Berlin, and there are doubtless very many of his friends and former students in this country and America who will gladly join with us in congratulations to Dr. von Frerichs on the well-merited distinction thus bestowed upon him. We regret to hear at the same time that Dr. Frerichs is at present unable, owing to illness, to deliver his clinical lectures; and that it is reported that after the celebration of his 25th year as Director of the University Medical Clinic by a jubilee on the 1st of April next, it is his intention, on account of his failing health, to retire from the post which he has filled with such conspicuous ability.

WE understand that arrangements have been made for the publication of a monthly periodical, dealing with Laryngology and its allied sciences, on a plan which will at once recommend itself not only to specialists but to the profession at large. Contributions to the literature of these subjects have of late years been freely admitted to the most prominent columns of all the leading medical journals, and the "original communications" which have failed on their merits to secure this more exalted form of publicity have gone to swell the pages, but not the intrinsic value, of various special journals. Thus all the work that has been hitherto done, lies hopelessly scattered through the periodical literature of many lands, and the so-called special journals are not representative of the better kind of study. It is now proposed, therefore, to remedy this state of affairs by the establishment of a periodical, whose chief end and object shall be *reporting*—to bring together, month by month, a careful and concise account of all the work that has been done in the meantime, in any part of the medical world, and to review in a thorough and temperate spirit any published works bearing on the subjects. The reviews will, in every case, be signed. The work being thus international, will be published in the language best known to the majority of laryngologists, viz., German. A guarantee for the thoroughly scientific spirit in which the work will be undertaken is given by the names of the intending contributors, who are united under the editorship of Dr. Felix Semon. The distinguished support which the project has already received in this country and upon the Continent augurs well for the future success of the *Internationales Centralblatt für Laryngologie, Rhinologie und verwandte Wissenschaften.*

THOSE who have attended Dr. Widerhofer's crowded clinic, at Vienna, will be glad to hear that he has just been unanimously chosen as Ordinary Professor of the Diseases of Children in the Vienna Medical Faculty. It is strange that one of his eminence, both as a practitioner and teacher, should not have been promoted before this from the extraordinary professorship, which he has held for seventeen years.

HIS Excellency Herr von Langenbeck has issued invitations, from his beautiful retreat at Wiesbaden, for the thirteenth meeting of the Congress of German Surgeons, to be held in Berlin from the 16th to the 19th April. By a resolution passed at the congress of last year, it was determined that all papers to be read at the meeting must be communicated to the secretaries by the end of January; but as at that date only three papers had arrived, the period for their reception was extended to the end of February. The third Congress for Internal Medicine is also to be held at Berlin from the 21st to the 24th April, under the presidency of Geheim-Ober-Medicinal-Rath von Frerichs.

THE death-rate of the 28 great towns fell last week from 21·1 to 20·3 per 1,000, while the London death-rate fell from 20·2 to 19·3, a lower figure than has been yet recorded this year. In London there was a marked fall in the zymotic deaths, from 208 to 179; while in the other 27 towns this class of deaths showed a slight rise, from 221 to 226. Compared with former years, the deaths from zymotic disease were 51, and the deaths from respiratory disease 162, below the corrected decennial average, and this though the mean temperature of the week was nearly 2° below the average. The deaths from small-pox during the week were higher than in any of the previous eight weeks of this year, but the epidemic does not appear to have spread in the way it threatened at the date of the last return. Only twenty new cases were admitted into the asylum hospitals, against 28 in each of the two previous weeks.

IN the eight large Scottish towns the death-rate rose last week by 0·6, instead of falling, as in the case of the English towns. The zymotic death-rate also experienced a rise of 0·3, and was 3·5 per 1,000 as compared with the English rate of 2·4. Diphtheria was, as usual, very fatal in the northern towns, causing seventeen deaths in the week, exactly the same number that it caused in 27 large English towns, with an aggregate population four times as large.

IN his report on the last quarter of 1883, Dr. Alfred Hill, the Medical Officer of Health for Birmingham, is in a position to show a sensible decrease in the mortality of his district from zymotic diseases. The death-rate from this cause fell from 3·1 and

3·2 in the fourth quarters of 1881 and 1882 respectively, to 2·8 in the quarter above referred to. Diarrhœa proved the most fatal of the zymotics, while singularly enough the deaths from whooping-cough—only 17 as compared with 91 in the similar quarter of 1882—were the lowest recorded in any quarter since these records were established. Birmingham would appear to share with the metropolis the difficulty of stamping out entirely the scourge of small-pox, and forty deaths were attributed to this cause, as compared with only two in the corresponding quarter of the previous year; the cases which came to Dr. Hill's knowledge, numbered 435, the per-centage of mortality being as low as 9·2 against 9·5 in the preceding three months.

Setting aside the effusion in *Blackwood*, which we noticed last week, the paper of most interest from a medical point of view, in the March magazines, is Dr. Tirard's thoughtful and readable article in the *National Review*, on out-patient work in children's hospitals. Dr. Tirard's main contention is that the physician will never be able to do his best for his little patients unless we can get the lowest orders to realise a few of the simplest conditions of health, and the most rudimentary facts of contagion. "So far as the work of our children's hospitals goes," Dr. Tirard writes, "every physician feels that his greatest labour is expended in giving advice, that he does far more good by this than by resting satisfied with attempting to counteract errors merely by the administration of cod-liver oil, &c." But from ignorance amongst the poor, the physician's advice is too often "set aside in deference to those of the neighbours, old dames replete with sage saws and ancient aphorisms, with hazy notions of symptoms and quaint superstitious charms for remedies." Dr. Tirard holds that the main remedy is to be found in teaching more hygiene and public health in our Board schools, but against such a proposal "doubtless a cry would be raised by the British ratepayer." Not only, unfortunately, by the British ratepayer! Some time ago, as our readers may remember, Dr. Allchin, who has also had a long experience of children's hospitals as well as of science teaching amongst the lower orders, maintained that it is useles to teach physiology in primary schools, and that the only way to get hospital patients to carry out instructions is by an emphatic "do this," on the part of the physician. To us Dr. Tirard's appears the more hopeful and the more reasonable contention.

The *Nineteenth Century* opens with a manifesto in its largest type, by the committee of a new "Society for the enforcement of sanitary laws and the improvement of Dwellings," of which Mr. James Knowles is secretary. The committee is strong but mixed, consisting of the Baroness Burdett-Coutts, Miss Octavia Hill, the Earls of Shaftesbury and Dunraven, Sir Richard Cross and Mr. Shaw-Lefevre, Mr. Samuel Morley and Mr. Burt, the Rev. S. A. Barnett, Mr. Arnold-Forster and the Secretary. The Society, the object of which is to improve the dwellings of the poor by enforcing the existing law, is a satire on our methods of local government. It is like having to form private committees of safety to help the police to deal with pickpockets. It is true that local authorities want looking after, but would it not be saving time to reorganise them at once? The same magazine contains one of Mr. Traill's delightful colloquies, entitled "The Brutes on their Master," in which he touches lightly, but not unkindly, on the subject of vivisection.

Macmillan contains a short but interesting note on the experiment of boarding-out London children amongst the cottagers of the New Forest. It has only been tried for two summers, but so far the results have been most satisfactory. In the *Atlantic Monthly*, besides a graceful set of verses by Dr. Wendell Holmes, there is a paper on the discovery of Peruvian bark, which is not entirely agreeable reading for a doctor. The faculty certainly does not come out well in the history of its relations to the drug. In the case of the Countess of Chinchon, the Court doctors, the surgeon-general of the army, and the chief surgeons of the Spanish ships of war at Callao, all appear to have opposed the administration of the Indian powder, then but little known, and their unwillingness to experiment upon their aristocratic patient may be amply justified. But the conduct of King Charles II.'s physicians, nearly a century and a half later, and of those of Frederick the Great, over two centuries later, is not so easily excused. The bark was introduced into notice in England by an apothecary, named Tudor, but the physicians would have nothing to do with it. Evelyn records in his diary that they "would not give it to the king at a time when in a dangerous ague it was the only thing that would cure him (out of envy because it had been brought into vogue by Mr. Tudor, an apothecary). . . . . Being asked why they would not prescribe it, Dr. Lower said it would spoil their practice, or some such expression." In the case of Frederick the Great, we are told that he bitterly reviled his physicians "that they would not give him the drug of which he had heard, nor cure him of the fever, having nothing better than Pyrmont water to offer for his relief." The sting is taken out of these recitals when we remember the change that has come over the profession, which no one now is likely to accuse of prejudice against new remedies.

In Dr. Alexander Wood, who died at Edinburgh on the 26th ultimo, another of the original members of the General Medical Council has passed over to join the majority of his colleagues. Dr. Wood was the son of an Edinburgh practitioner; he took his degree at the Edinburgh University, and entered practice at a comparatively early age. In 1844, he became lecturer on the practice of physic, at the Extra-Mural School, and held the post for ten years. In 1855, he was a candidate for the corresponding Chair in the University, but was beaten by Dr. Laycock. He closely associated himself with the Edinburgh College of Physicians, and when the Medical Council was instituted in 1858, was chosen by the College as its representative. He resigned this position in 1873, at about the same time that he gave up active practice. Dr. Wood also took a considerable share in the

management of the affairs of the Edinburgh University, and he acted as assessor during Mr. Gladstone's rectorship. His contributions to science were not remarkable. He had something to do with the introduction of chloroform by Sir James Simpson, and he contributed to the invention of the hypodermic syringe. But he will be remembered far more for his public, than for his scientific services.

The removal of the Medical School of Anderson's College, Glasgow, to the neighbourhood of the Western Infirmary, which has long been under consideration, is now in a fair way of being realised. There is a scheme for the amalgamation of Anderson's College with the College of Science and Arts, and other schools, to form a large Technical College, under the provisions of schemes framed by the Commissioners under the Educational Endowments Act. It has been prepared on the assumption that the Medical Faculty will be removed from Anderson's College. At a meeting of the managers with a deputation from the Medical Faculty of Anderson's College, the subject has been discussed, and the proposal made to build a suitable house in the West End of Glasgow for their Medical School. The professors have urged the claims of the Medical School, which ought to be generously dealt with at this juncture, inasmuch as it is the Medical School which has kept the College afloat for the last forty years, and has enabled it to hand over property and funds to the amount of 67,000*l.* to the new Technical College. There is also this to be urged upon the consideration of the managers and the Glasgow public: that as the name of the founder of the College, will henceforth be associated only with the Medical School, the memorial ought to be of such a character as to confer honour upon all parties concerned.

We learn that the annual dinner of the Irish Graduates' Association will be held at the Holborn Restaurant, on St. Patrick's Day (Monday, March 17th), Professor G. F. Yeo in the chair. Tickets and further information may be obtained from Dr. J. Thompson, 1, Matheson-road, West Kensington, W.

A deputation from the Royal College of Surgeons in Ireland waited on his Excellency the Lord Lieutenant, at Dublin Castle, on Monday, March 3rd, to present the resolutions adopted at the recent special meeting of the College, and urge the views therein expressed as to the provisions of "The Medical Act Amendment Bill," introduced by the Government last session, and again presented to the Upper House by Lord Carlingford, as Lord President of the Council. The deputation comprised Mr. W. I. Wheeler, President of the College; Dr. W. Colles, Secretary of the College; Dr. Edward Hamilton, ex-President; Dr. J. Stannus Hughes, Secretary of the Council; Dr. George H. Kidd, ex-President; Dr. Rawdon Macnamara, ex-President and Representative of the College on the General Medical Council; and Mr. John Kellock Barton, ex-President. His Excellency, in reply to the deputation, said he thought a great deal of unnecessary alarm had been created by the Bill, and he was quite certain the Government did not intend to bring to "uselessness" and "poverty," a body that had done such eminent service as the Royal College of Surgeons in Ireland; but Lord Carlingford would be most ready to take into account any representations made by the College on the subject of the Bill.

We have to chronicle the untimely fate of the latest Conjoint Examination Scheme for Ireland, which was "floated" some three months ago by the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland. The collapse of this—probably the final—effort to establish a conjoint examination between the two colleges was brought about by the council of the College of Surgeons, who thought proper to append to the *ad interim* report of a joint committee of the colleges on the subject, the proposition—"That it is desirable that the Apothecaries' Society should be requested to co-operate in the Conjoint Scheme of Examinations." It is scarcely necessary to state that the College of Physicians regarded this resolution as distinctly outside the proposed scheme and altogether irregular.

In his fourteenth annual report on the "Health of Salford," during the year 1882, Dr. John Tatham, the Medical Officer of Health, commenting upon the means at his disposal for dealing with infectious diseases, remarks, that of the 5,000 cases of infectious sickness, which, in round numbers, probably occurred in his district during 1882, not more than one case in four was reported at his office; consequently the power which the Health Department possessed over the spread of diseases of this character, was proportionately limited. During the whole of the year under notice, 1,261 cases of the principal zymotic diseases were reported; the death register, however, records within the same period the deaths of 499 persons from these diseases. Unless, therefore, it is decided to accept the proportion of two deaths in every five attacks, as the average mortality to which infectious maladies give rise, the conclusion seems inevitable, that of the total number of sick cases that occur, the Salford Health Department receives information with respect to only a very small and inadequate proportion; and this, viewed from a preventive standpoint, discloses a state of things the reverse of satisfactory.

The rate of mortality due to the miasmatic class of diseases in Salford was, during 1882, equal to 2·7 per 1,000, as compared with 3·9, the mean of the annual rates in the preceding decennium. Dr. Tatham publishes a table which he has compiled from the quarterly returns of the Registrar-General, and by which he shows that throughout the country generally the incidence of infectious disease during the year 1882 was unusually light, a result due, he considers, to meteorological conditions of the nature of which we know little, but which seem to determine the prevalence of such diseases. He also claims for Salford a very fair position in the list, as regards its miasmatic rate, since this latter is lower than the average rate of the 28 great English towns, many of which enjoy natural advantages which Salford does not possess.

The question of the right of hospital doctors to make *post-mortem* examinations on their patients against the wishes of the friends, is one that is continually coming before us. The latest case of the kind occurred a few days ago at St. Vincent's Hospital, Dublin, where Dr. F. J. B. Quinlan made a *post-mortem* examination, contrary to the distinctly expressed wish of the patient's father, on the body of a young woman who had died from heart-disease under his care. It seems to us that in so doing Dr. Quinlan clearly placed himself in the wrong. We are unfortunately only too familiar with the unreasoning unreasonableness of the friends on similar occasions, but under such circumstances there is no help for it, and the interests of science must yield in the face of crass superstition or crasser obstinacy. We fail to understand, however, what ground the coroner had for holding an inquest. We regret to hear that civil proceedings are about to be instituted against Dr. Quinlan, whose demeanour at the inquest was honourable alike to himself and the profession.

That a great deal of mischief is done to children every year by overwork in schools, we should not think of denying, and the infliction of injury in this way is by no means confined to Board schools, or indeed to any one class of schools. But those who would not injure the cause they advocate, must be sure of their facts before raising a cry of overwork. This reflection naturally suggests itself in connection with a recent case at Cheltenham, where an inquest was held on the body of a little girl, who had died from tubercular meningitis induced in part, at any rate in the opinion of her medical attendants, by overwork at school. The evidence, however, in support of this was not conclusive, and the jury returned a simple verdict of death from inflammation of the brain.

The Cambridge Graduates' Club have every reason to congratulate themselves on the success of their *conversazione* on the last day of February. Besides a very good concert, there was plenty of entertainment provided in the shape of artistic collections and scientific novelties. The one which deservedly attracted most attention was the working model of a railway signal, invented by Mr. Stanley Currie, of Caius College, Cambridge, in which the signal was moved by an electro-magnet, a lamp being at the same time lighted to show that the apparatus was in proper working order. Professor Hughes's sonometer, exhibited by Mr. Dalby, had at all times throughout the evening its complement of admirers, many of whom learnt for the first time, that their hearing was not so acute with the left as with the right ear. Dr. Heneage Gibbes gave a demonstration of various micro-organisms, beautifully stained and mounted. The guests mustered in greater force than their hosts, there being, we believe, about 120 of the former to 50 of the latter. It is rumoured that the Oxford medical graduates are going to follow the example of the sister University, and found a club on the same lines. Should this rumour prove to be correct, it may be that some day we shall hear of an amalgamation between the two clubs.

The American Commission appointed to enquire into the trade in hog products, have reported "that hog cholera is not present in meat packed for human food, and in no event is the disease communicable to human beings. As to trichinosis the report is less conclusive, because less is known with certainity of the manner in which living trichinæ or their germs are transmitted. It is known, however, that the processes of packing, and the time which elapses between the slaughter of the animals, and their consumption abroad, so diminishes the vitality and propagative power of the trichinæ as to prevent their development in the human body. No single instance, based on competent scientific testimony can be adduced of trichinosis in Europe, arising from the use of American packed swine products. In every single case in Germany, it has been found that the disease was traceable to the consumption of freshly killed native hogs, and its virulence diminishes with the lapse of time between killing and consumption."

The number of artificial teeth manufactured in the United States is said to amount to ten millions per annum. There are twelve manufactories, but one of them, founded in 1864, makes half the number sold. The value of these teeth is a million dollars. The materials of which they are composed are felspar, kaolin, and rock-crystal.

The *New York Medical Journal* and the *New York Medical Record*, for February 16th, contain detailed reports of the discussion on the "Prevention and Treatment of Puerperal Fever," which has lately taken place at the New York Academy of Medicine, the addresses of Dr. Fordyce Barker and Dr. Gaillard Thomas being given in full. In the latter journal is also a long and able communication from Dr. Simon Baruch, on "Objectionable Features of certain Methods of Prophylaxis against Puerperal Fever," a paper which at the present time, when there seems some danger of over-interference with normal processes, is very opportune.

Dr. Magnan, in a paper recently read at the Paris Biological Society, expounded the reasons which had led him to admit a peculiar form (or as he calls it, an episodic syndromus) of hereditary insanity, characterised by true anti-vivisectionist delirium, which seizes hold of certain sensitive and ill-balanced minds. Side by side with these anti-vivisectionists he places a particular species of vegetarians, who embrace exclusively vegetable diet, not as a measure of hygiene, but solely in order to avoid the slaughter of animals. The numerous facts which he analyses, "demonstrate once more how various are the colours under which hereditary insanity may manifest itself." Among these degenerate beings everything in fact becomes a cause of delirium, and thanks to this powerful predisposition, it is not necessary for its subjects to pass through the slow and progressive stages of development, which those who are the subjects of common insanity methodically traverse.

At a recent meeting of the Parisian *Société Médicale des Hôpitaux*, Dr. Martineau again brought forward

his case of successful inoculation of syphilis on a monkey. Now, eleven months after the inoculation, the animal is suffering from a "papulo-erosive" eruption on the buccal and pharyngeal mucous membranes; and further from epileptiform seizures. The syphilis, therefore, continues to develop in a normal manner. All the lesions hitherto observed have passed away without any form of treatment being adopted. M. Guyot and M. Féréal doubted whether the epilepsy could be considered as due to the syphilis, especially as the monkey is essentially of a nervous temperament, to which argument M. Martineau replied that previously this monkey had not exhibited either signs of epilepsy or other nervous phenomena. There would manifestly be a difference between immediate and remote epilepsy; in the present instance several months had passed since the inoculation was practised.

Dr. Clifford Allbutt begins his course of Gulstonian Lectures at the Royal College of Physicians, this (Friday) afternoon. He has chosen for his subject one which is very lightly passed over in the current text-books, viz., visceral neuroses, and he will devote his attention mainly to the neuroses of the abdominal, as distinguished from the thoracic and pelvic viscera. We may venture to foretell that Dr. Allbutt's lectures will be worthy of the great reputation he has won as an acute observer, clear thinker, and picturesque writer—Dr. Allbutt more nearly approaches in gifts to Dr. Wendell Holmes than any other medical writer of our time—and we may also predict that his remarks will cause some fluttering in certain dovecotes.

MEDICAL EDUCATION IN LONDON.

The conditions under which medicine is taught in the metropolis ought to engage the attention of all minds which are not content to live in the present, or to dwell upon the past. The subject is rapidly coming to the front; it is emerging out of the realms of *doctrinaire* discussion, into that of practical politics, and the passing of the Medical Act would in all probability at once bring us face to face with it. In spite of the immense advance in its organisation, in spite of the increase in the number of teachers, and the large sums that have been spent at almost every hospital in improving the appliances for teaching, there is not the slightest doubt that the education of medical students in London falls very far short of an ideal system. There is a reckless waste of effort and material, and an utter want of proportion between the attention paid to primary, and that paid to advanced subjects. The requirements of the primary examinations have forced upon us an almost universal system of private coaching, ruinous alike to the student and the teacher. It is a system which robs anatomy, physiology, and other primary subjects of whatever value they have as a means of culture, which converts the student into a schoolboy, and his teacher into a pedagogue. On the other hand, the requirements of the later examinations are so limited in scope, that a student may be sent out into the world to try his skill upon it, who not only is entirely ignorant of all special divisions of practice—such as insanity, diseases of the ear, throat, eye, and skin, and the administration of anæsthetics—but who has no living grasp of medicine, surgery, diet, nursing, or the general care of the sick. By dint of hard and systematised work on the part of their many teachers, the students are successfully forced through their examinations; but in the effort we sacrifice all the higher teaching of medicine, and the student, who has time and mind for it, finds that there is no place for him in our system, but that he must move on to make room for the ever-advancing phalanx of pass-men.

It is impossible nowadays to close one's eyes to the fact that London, as a centre of medical training, has powerful rivals, and she will have in the future to make great efforts to outstrip them. Considering the natural advantages which London possesses, the overwhelming mass of material, the crowd of able teachers, and the vigour of its scientific interest and enthusiasm, her supremacy as a medical *alma mater* ought not to stand in question for a moment. She ought to be able to rejoice at the success of her great rival in the North, and watch, with friendly interest, the local medical schools springing up into activity in the provinces, instead of viewing their advance with dread, as she does. But with all her advantages, London is so handicapped in the race, as compared with Edinburgh, Cambridge, and Manchester, that this dread of their rivalry in the future is in the highest degree reasonable. There are three difficulties with which London has to contend as a medical palæstra. First, the multiplicity of centres of primary medical instruction, which occasions a ruinous waste of both teaching effort and material. On this point we have sufficiently dwelt in previous articles. Secondly, the deficient organisation of the means for clinical teaching; and, thirdly, the inability to confer a medical degree upon more than an infinitesimal proportion of her students. In nothing has the want of a strong central authority been more felt than in the way in which small special hospitals have been allowed to spring up in all parts of the metropolis, with the result of drawing away from the schools of medicine, and so rendering useless for clinical teaching, a large and most valuable mass of material. This has been due in great measure to the neglect of the large hospitals to realise in the past the great importance which the specialties were destined to assume in medical practice. But it has also been due to a want of power, or of inclination, on the part of the Government to control private effort with a view to public benefit. Any pushing doctor, backed by a few wealthy friends, has been allowed to start a special hospital, whereas, if we had had a strong Minister of Education, no such institutions would have been allowed to come into existence, unless they could prove that they were able and adapted to provide for the teaching of students as well as for the treatment of the sick. We will say nothing now of the questionable devices to which many such hospitals are reduced in order to avoid bankruptcy. But if the special hospitals are to be of any use as educational institutions, it is absolutely necessary that they should be affiliated to, and in their teaching capacity governed by, the larger general hospitals. They can never be anything but a drag on us, till some such centralising scheme is introduced.

The medical degree difficulty, though we should place it last in importance, is likely to come on first for discussion. The "title of doctor" question is on the point of being emancipated from the stage of small print; it is passing, in compositor's language, from "nonpareil" into "bourgeois." Hitherto it has been associated with a sentimental grievance—it has been a country practitioner's question. Henceforward it will become a matter of practical importance—a matter for senates and councils, rather than for anonymous letter writers. London teachers are constantly complaining that some of their most promising students, after making a fruitless trial or two at Burlington Gardens, go away in disgust to other less strict Universities, where they can achieve a right to the title of doctor, without running the gauntlet of the many severe tests that the University of London imposes. The teacher who finds his pupils and their fees thus attracted away from him when he knows that, as far as teaching is concerned, he can give a good account of every rival, deserves the fullest sympathy. But it is hardly to be expected that the senate of the London University should consent to lower its standard, and place its medical degrees on a footing entirely different from its degrees in other faculties, should consent further to destroy the beneficial influence which its requirements have undoubtedly had upon the higher medical teaching, in order to keep the fees of students for hospitals in which it has no direct interest. That some modification in the earlier examinations is advisable may be readily admitted; but we believe the mass of London graduates throughout the country would, apart from all regard for vested interests, strenuously protest against a cheapening of the London M.B. or M.D. We hold that a medical degree ought to imply some special culture, some training in general science or philosophy beyond the rough knowledge of his profession, which the ordinary practitioner possesses; something even beyond the smattering of Latin, French, or German, which the College of Physicians requires of its members. A man may be a good practitioner of medicine without being a learned or cultured man, for the medical training is not necessarily in itself a liberal education, or one which brings with it a broad and philosophic tone of thought. To give the title of M.D. simply for a book-knowledge of anatomy and physiology, and average skill in bedside work, would be to rob it of all its best associations, and to make it comparatively worthless.

If then the London teachers are to compete with their rivals in the provinces, it must probably be by means of a better organisation of their unrivalled material. London has far and away better teachers than any other medical school in the country, and it is many times richer in material. But at present both are wasted. If the latter were properly focussed and utilised, and if the former were allowed more open competition, and the best of them freed from the hack-work of passing men through examinations, London could offer advantages to the student such as he could obtain nowhere else in the world. We should like to see London made, as it ought to be, the centre of the higher medical teaching of all the English-speaking races. We should like to see men coming from all parts of the country and the colonies, with their examinations passed, to follow in the train of the great clinical teachers that we have amongst us. We should like to see a central institute, which for a single fee could throw open all the clinical teaching of the metropolis to the student, so that whether he were drawn to medicine at Guy's, or surgery at St. Bartholomew's, or Listerism at King's College, or eye-surgery at Moorfields, he should be able to feel that he had a right there and was no alien. Such a system would not interfere with the teaching of our own students, it would incite both pupils and teachers to rivalry, and London would for the first time become, what it has every right to be, the *alma mater* of the medical world.

THE SCHOOLBOY AT SCHOOL.

The present is an era remarkable for attempts at union and co-operation in all directions, and amongst all sorts and conditions of men. The latest effort of this kind is one to which we would give a cordial welcome. The proposal to establish an Association of the Medical Officers of Schools, should cover a wide extent of valuable and hitherto almost unwrought ground; and, if effectually carried out, is capable of achieving results of which it would be difficult to over-estimate the prospective value and importance. The fact that the idea is born not a day too soon is rather an argument in its favour, and, indeed, augurs well for its success Too often in the world's history great discoveries and movements of undoubted intrinsic merit have been doomed to failure, simply because the public was not yet ripe for their reception and appreciation. Now, however, that education is so general, and especially now that educational methods and abuses occupy so considerable a share of general interest and attention, there is good reason to hope for that concurrent recognition from the outside public, for lack of which many a similar scheme has failed of attaining its full meed of usefulness. The practical value of such a body as that which it is now intended, we understand, to constitute, must, after all, largely depend upon the extent to which its conclusions and suggestions can act through and with the support of public opinion; and it is an immense advantage when, as in this instance, public opinion has itself been educated up to the point of receptive interest.

There is yet another reason for congratulation, and one which does not lie so immediately upon the surface. While people are roused by allegations of an epidemic of overwork in Board schools, and by a prognosis of national myopia, while their sympathies are harrowed by reports of the break-down of pupil-teachers and the suicides of sensitive scholars in National and Elementary schools, there seems to be some risk of overlooking the dangers, not less real or less painful of their kind, which attend the members of our public and larger private schools. That general attention has not hitherto been drawn in this direction may be due, in some measure at least, to the fact that the life and trials of the public-schoolboy do not ordinarily come within the ken of the vigilant district-visitor, or afford a theme of discourse to an energetic School-Board candidate; while it is also too generally assumed

that the children of the upper classes are, by virtue of their social position, beyond the incidence of those special causes which are known to be operative in the ranks below them. The idea is a fallacious and a misleading one: fallacious, because it ignores the universality of that high pressure and goading competition to which most evils of the modern educational system are attributable; misleading, because it implies that there are no perils attendant on the system of instruction pursued in public and in high-class private schools. The facts are quite otherwise. If intellect-driving is an irksome novelty to children recruited from slums and gutters, its effects are as evil, and are probably more keenly appreciated, amongst the children of the upper and middle classes. The conscientious son of a professional man who has a position to maintain with a large family and a limited and, perhaps, precarious income, will acutely realise the necessity for early securing a good start in life for the sake of his parents, and of his brothers and sisters, no less than for his own. By both friends and relatives he is continuously urged to make the most of his opportunities, and the precept is enforced by reference to examples of brilliant success amongst his fellows; while he is given to understand that he is expected to achieve results proportionate to the special advantages which are supposed to be attached to the favourable circumstances of his birth and social position. And thus, while an extra turn is given to the educational screw, the additional burden of personal worry is brought to bear upon a mind which is, not rarely, unduly sensitive. Moreover, the conditions under which such boys have to work are not by any means so generally favourable as most people are willing to believe. Most fathers will admit that now-a-days their sons are expected to master subjects of a variety, a nature, and an extent to which, in their own boyhood, they were almost strangers. A generation or two since, moreover, when the average standard of school work was considerably lower than is the case at present, the brilliant and clever worker came to the front *proprio motu* — because he could, from sheer natural and spontaneous ability outpace the crowd, and not because he was forced by a combination of all possible *stimuli* into a precocious and unnatural development. Now the tendency is rather to work all intellects up towards the same standard, to use the conspicuous successes of the few as incentives to further efforts on the part of the less gifted majority, and to fasten upon all the haunting worry of continuous competition. It may well be doubted whether, had he been exposed to influences such as these, Newton would, on the one hand, have been regarded almost as a dunce up to the age of eighteen; or, on the other, would have developed into that intellectual giant which the world recognised in his ripened manhood. The forced acorn grows rapidly into a tree, sappy as the willow, but it makes no heart-wood, and rapidly decays; and no system of cultivation will convert a poplar into a yew.

There is yet another point connected with this aspect of the question. Whilst, in the course of the present generation, the standard of average education has been so markedly raised, and the amount of work to be got out of, and of facts to be got into, each boy has been proportionately increased, the arrangements for feeding the body have in the larger and older schools undergone little if any modification. The breakfast, dinner, and tea actually provided in our best known public schools—however well they may have sufficed for the necessities of the easily worked scholar of some generations since—are now notoriously inadequate for the requirements of his modern representative. The hours of work are longer, bodily exercise is carried to an extreme, and at the same time the mental and intellectual faculties are being worked at the highest pressure obtainable, upon a school-fare which would barely suffice to make good the merely physical waste and repair of the growing lad of sixteen or seventeen. So unquestioned is this fact, that in these schools there obtains a regular system whereby, by special arrangement with his parents, each boy is at liberty to supplement the actual school provision with additional food up to a stipulated value. The result is, that, as the selection of this *addendum cibo* is left to a youth whose appetite is too often both balked and jaded by the combined paucity and monotony of the food regularly provided, he invests in the appetising sausage, or in some tinned or preserved meat, rather than in the chop or beefsteak or egg which would stand him in so much better stead; and probably no one whose experience has not lain amongst the juvenile consumers of such viands can fully appreciate the mischief which may be fairly laid to the charge of tinned meats and sausages. Our statements are quite within the mark, and as the subject is one of real and far-reaching importance, we may probably recur to it hereafter.

The younger schools, which have been fortunate in starting comparatively unhampered by tradition and by that strong topical conservatism to which the English schoolboy is so early wedded, are, as a rule, less open to reproach in such matters. But in all cases, the question of food and feeding; of exercise — its character, its amount, and its relation to meal-times; of school punishments; of lighting, heating, drainage, &c., are matters in which there may be noted a far greater variation of management and method than can be necessitated merely by the inherent variability of the genus *puer;* and these, therefore, are subjects which may fairly be considered worthy of discussion and adjustment. Leaving hygiene for more strictly medical questions, it would seem that the proposed Association might gather and elaborate most important information on the subject of the commoner epidemic diseases. The school-age is pre-eminently that during which, for instance, the contagious exanthemata are wont to be developed. The important material and observation which now so largely run to waste, could thus be collected and compared. And it is not easy to set a limit to the results which might be achieved by the careful comparison of a large number of full and accurate returns—each the work of a skilled observer engaged in noting the sequence of events in a large number of individuals who are drawn from practically the same class in life, and who live under practically identical conditions.

Although the remarks hitherto made have referred exclusively to boys' schools, it is not thence to be

inferred that there is no room for improvement in the hygienic and medical management of those establishments which are devoted to the education of the opposite sex; or that the material which is there available would not amply repay such record and observation as comes legitimately within the province of the medical attendant. But, in an age in which the equality of the sexes is preached from the house-tops, we may fairly expect that anything which is recommended or condemned in the school system to which boys are subjected, would come to be regarded with equal praise or blame in the case of girls, and would be made the basis of remedial action equally prompt and energetic in both cases.

The subject, of course, is not by any means exhausted; nor is it implied that the points to which we have drawn attention should be investigated just in the order in which we have alluded to them. The medical officers of schools should know their own work best, and should be able to judge to what quarter their efforts can be directed with the greatest advantage, and with the probability of attaining the most practical results. We have written rather with the object of rousing and stimulating that general interest in the subject without which, as has been already pointed out, no movement—whatever its origin or its object—can hope to secure real and permanent success.

CLINICAL PAPERS.

VII.—Chronic Tonsillitis and Tonsillotomy.

Chronic enlargement of the tonsils in young children is so common a condition in this country, as to deserve a little more attention than is usually paid to it in the routine instruction of the medical schools. Students generally leave their hospital studies imbued with one of two guiding principles on the subject of its treatment. Either they agree to leave the tonsils alone in all cases, or they decide to cut them out. The disciples of the latter school are probably the more numerous. The operation of tonsillotomy is, when skilfully performed, as gratifying to the feelings of the operator as it is, when the pain has subsided, to those of the patient, and hence it is not to be wondered at if the self-satisfaction thus induced sometimes leads the surgeon, confident of success, to operate, without further question of the relative advantages to be gained by the patient. Is tonsillotomy a complete cure for enlarged tonsils? The experience of those patients, probably well known to all hospital physicians and surgeons, who have had their tonsils taken out "again and again," would return a negative answer. If, by the ordinary operation, we could ensure the complete enucleation of the whole gland, there would probably be no return of the overgrowth; but the simplicity of the tonsillotome, which enables the operation to be all but momentary in duration, carries with it the disadvantage of almost invariably incomplete removal, which was effectually avoided by the ancient procedure of enucleation by the finger nail. It is to the subject of recurrent or fluctuating tonsillitis that attention is directed in the present paper.

Without entering into the larger question of the ætiology of the disease, it may be taken for granted that the tendency to suffer from hypertrophy of the tonsils is peculiar to certain individuals, and usually those of a strumous type. In some cases, but by no means in all, there exists a concurrent tendency to hypertrophy of other lymphatic glands. That very considerable hypertrophy of the tonsils may exist, wholly unsuspected, either by the patients or their friends, is also a familiar fact. But it is not until they come under close observation that the discovery can be made that these overgrown glands are liable to frequent fluctuation in their size, and hence in the symptoms which they produce. Intending operators have frequently been astonished, on appointing a convenient day for tonsillotomy, to find that the urgent need for immediate removal, which they have been impressing on the minds of parents and friends, has, in the meantime, become considerably lessened by the independent conduct of the tonsils themselves. What then is the cause of this occasional fluctuation, and this frequent regrowth after removal? The answer may be found by examining the minute anatomy of the tonsil. Being entirely composed of lymphatic and adenoid tissue, it is, like all other similar tissues in the body, liable both to tumefaction and to hypertrophy. More liable, indeed, than most of the deep seated lymphatic structures, from its more exposed position, to become acutely inflamed in response to the action of direct irritants. But the chronic and fluctuating enlargement must be regarded in the light of a diathetic condition, and may thus be classed with the chronic enlargement, sometimes coexistent with it, of the cervical glands. In dealing with it we must look to something more than the local changes as seen through the mouth. The symptoms which it induces, or rather the symptoms which accompany it, are so various that it is often impossible to connect the effect with the supposed cause. The characteristic changes in the face, the noisy respiration during sleep, and the occasional deafness are easily explained, but the very marked depression of spirits, the abdominal pain and frequently capricious appetite are not quite such obvious results of the pharyngeal obstruction, nor is the explanation rendered clearer by the complete relief sometimes afforded to these general symptoms, whilst the local trouble remains unchanged. In such cases the removal of the overgrown tonsils is as little necessary as would be the removal of the enlarged lymphatic glands in the neck. So long as the two chief functions of respiration and deglutition can be efficiently carried on, the greater or less tumefaction of the tonsils is a matter of indifference, and in a very large proportion of cases these conditions are present.

The tendency of tonsillar hypertrophy to diminish, even to atrophy, as age advances, should be borne in mind, side by side with the fact that where the tendency to hypertrophy exists, it is sure to manifest itself even after an almost absolute ablation of the gland. The treatment of cases of ill-health accompanied by enlarged tonsils should, therefore, always be aimed first towards the relief of the general, and not of the local, symptoms, and in many cases it will be found that iron and cod-liver oil will do their work as well before tonsillotomy as after it. Only when the local obstruction is giving

rise to really severe or dangerous symptoms is it necessary to have recourse to immediate excision. Not unfrequently in such cases there are also present abundant adenoid growths in the vault of the pharynx, and under these circumstances no advantage can be gained by delay in operating. But in the ordinary cases of moderate enlargement in which the concomitant symptoms are as characteristic of a simple strumous cachexia as of any special form of glandular hypertrophy, the hasty resort to operative measures is to be deprecated. The fallacy of the rule *post hoc ergo propter hoc* is nowhere more clearly illustrated than in these cases, where hypertrophied tonsils are found guilty, condemned and executed for crimes of which they are themselves the victims, only to rise again, as feebly hypertrophied stumps, in judgment upon the mistaken zeal of their executioner.

B.

REVIEWS AND NOTICES OF BOOKS.

RIVINGTON ON RUPTURE OF THE BLADDER.[1]

Rupture of the bladder, although not a common accident, occurs with sufficient frequency to make it possible that any medical man may sometime or other find himself compelled to decide whether this injury has occurred or not; and if he is satisfied that it has happened, he may still further be obliged to determine the best plan of treatment to adopt. The teaching of ordinary text-books has probably left his mind without any very definite ideas on the subject, and if he is a student of current literature, he will very likely recollect that one surgeon has opened the bladder by lateral cystotomy, or that another has opened the abdominal cavity and stitched up the vesical rent, with no very good results. The profession, therefore, owes its thanks to any one who will undertake the reading and thought necessary to concentrate our knowledge on such a subject. Mr. Rivington has done this, and has produced a volume which every practitioner should read, and which surgeons will do well, not only to read, but to put upon their shelves. The author avoids, as foreign to his subject, gunshot injuries and penetrating wounds of the bladder, and he leaves unnoticed cases, where bone, and possibly surgical instruments, have found their way into the bladder by a process of ulceration. He only considers rupture of the bladder when produced by violence from without, or by pressure from within. In the first place, he clearly divides the injury into two kinds, the intra-peritonæal and the extra-peritonæal; the former being rupture where the peritonæum forms part of the vesical wall, and where extravasation of urine must necessarily take place into the peritonæal cavity; and the latter where the rupture is through the wall where uncovered with peritonæum. For practical purposes it is unnecessary to refer particularly to partial ruptures or to sub-peritonæal ruptures which, of course, are sub-divisions only of the second great division, *i.e.*, extra-peritonæal. Both the great divisions may be either idiopathic or traumatic, and the traumatic rupture may or may not be associated with fracture of the pelvis. Diagnosis is carefully discussed, and it is shown that before the existence of traumatic rupture is determined upon, it must be absolutely proved that the bladder was full at the time of the accident, and that sufficient force to produce rupture has been applied to the hypogastric region. It is also explained that all the typical signs of vesical rupture may frequently be partially absent, and occasionally nearly entirely so, such as, a feeling that something has given way, pain, shock, want of power to micturate, removal from the bladder with the catheter of blood only of a small quantity of bloody urine, so that often diagnosis is not an easy matter. In extra-peritonæal ruptures doubt will soon be removed by the occurrence of extravasation of urine, but in intra-peritonæal ruptures the author considers the best local test is the possibility of passing the point of a long silver catheter through the rent into the peritonæal cavity, finding the end of the catheter freely movable, and drawing off a large quantity of urine after the catheter has apparently passed beyond the bladder. It is here that, perhaps, some surgical readers will not find themselves quite in accord with Mr. Rivington. They may consider this manipulation safe enough in the hands of a skilful surgeon, but highly dangerous in ordinary hands, especially if no means have been employed to cleanse the interior of the catheter, particularly the portion beyond its eye; whereas no harm can be done by introducing a soft catheter fairly into the bladder, and most important information can be gathered from the injection of warm carbolised water through this inlying catheter, first of all noting the character of the urine, if any is drawn off. If the catheter is fairly in the bladder, and if its interior is not blocked up, as much injected fluid will be returned on removing the syringe, as was put in; if the bladder is not ruptured. If the injection is not returned, a finger in the bowel, with suprapubic pressure and percussion, will determine whether the bladder is empty or not. If the bladder appears empty, and the catheter is found not blocked up by clot, and especially if, as in Mr. Christopher Heath's celebrated case, the patient feels the warm injection in his groins, the case will certainly be one of intra-peritonæal rupture, and the process of diagnosis will have inflicted no injury upon the patient. Mr. Rivington does not refer to examination *per rectum* in these cases in favourable terms, although practical surgeons have relied very much upon it as an aid to diagnosis.

Supposing, then, that the surgeon is convinced that there is an opening in the bladder wall, and that urine and possibly injected fluid have escaped into the peritonæal cavity, what is he to do? Mr. Rivington has taken great pains to answer this question as fully as the present state of our knowledge permits. He has collected and digested, it appears to us, all the literature of the subject, not excepting the most recent published cases. His consideration of the eight well-known cases of reported recovery, after intra-peritonæal rupture is most interesting; he approaches them all in the true scientific spirit, and takes nothing on trust, with the result that he is only willing to accept one, that of

[1] Rupture of the Urinary Bladder, by Walter Rivington, F.R.C.S. J. & A. Churchill, London, 1884.

Dr. Walter, and he is not quite sure even of that. The cases of Dr. Thorp and Mr. Chaldecott, which have, perhaps, had more influence in the formation of surgical opinion than others, are dismissed as unworthy of credence. But, as the author remarks, if all these eight cases could be accepted, surgeons would still be in doubt as to treatment, for in all different plans were carried out. The subject is one of much importance, as was shown by the interest taken by surgeons in Mr. Christopher Heath's somewhat recent paper before the Royal Medical and Chirurgical Society. In the case, which formed the subject of his paper, Mr. Heath adopted Mr. Willett's plan of opening the abdomen, removing the extravasated urine, and stitching up the rent in the bladder. The cases of Mr. Willett and Mr. Heath both ended fatally, but there were sufficiently favourable signs in each, to induce surgeons to give the plan further trial. Mr. Rivington is satisfied that the first thing to do is to open the abdomen, and remove the extravasated urine and blood; he also thinks that a free perinæal opening for the draining of the bladder is desirable, but he does not say whether he prefers a median or a lateral cystotomy, or only an external perinæal urethrotomy. He considers the question of stitching up the bladder as still *sub judice*. If a surgeon can fully accept Dr. Walter's case, he may be tempted to leave the wound alone, and simply clear out the peritonæal cavity, and drain the bladder; for it is quite comprehensible that a bladder being ruptured when full, the wound in it, when the bladder is collapsed and kept empty, may be oblique and soon closed by the efforts of nature. The question of perinæal opening is also still an undecided one, with ordinary care the bladder may be thoroughly drained, if a catheter is tied in and tubing attached, and many of these patients are not in a state to be exposed to the risks of operative interference, unless absolutely necessary.

We have confined ourselves in this notice to a few points which particularly concern the practical surgeon, but the work is full of matter interesting to all, and it is not often that we have read a book of the kind, from cover to cover, with so much pleasure and profit.

ABSTRACTS AND EXTRACTS.

M. PASTEUR ON RABIES.

In a communication read at the meeting of the Académie de Médecine, Feb. 26, M. Pasteur gave an account of the results of the researches which he has been pursuing, concerning rabies, since his former communication in 1882. They are based upon a large number of experiments made on various animals, by inoculating the surface of the brain with rabid virus, or by introducing this into the circulation. The following are the chief conclusions to be derived from these experiments. 1. The spinal cord becomes affected by the virus of rabies before the medulla oblongata. 2. The virus has its seat not only in the encephalon and the spinal cord, but in the whole nervous system from the centre to the periphery, a fact which explains the nervous excitement manifested in so many instances, and as well as the strange symptom ærophobia in men often exhibited. The virulence of the saliva and of the salivary glands has been demonstrated on dogs rendered rabid by intra-cranial or intra-venous inoculations, as well as in those attacked by so-called spontaneous rabies. 3. The virus may be possessed, with all its virulence, in the encephalon and cord during several weeks, when putrefaction of the bodies is prevented by a low temperature. The virus also enclosed in hermetically sealed tubes may be preserved for three or four weeks at a summer temperature. 4. The virus of rabies may exist in the cerebro-spinal fluid, but its presence there is not constant. 5. Although the brain in rabies is distinguishable from the healthy brain by the greater number and delicacy of the molecular granulations, no microbe has as yet been detected. 6. We know, that usually when a bitten dog becomes mad, he becomes furious with a propensity to bite, and a peculier bark; but in these experiments, when the virus was passed into a vein or the subcutaneous tissue, the paralytic form of the disease was ordinarily produced without fury or barking, while when intra-cranial inoculation was resorted to, furious rabies was the usual result. This latter form was only producible by intra-venous or hypodermic injection, when very small quantities of virus were employed. The smaller the amount of virus employed for these injections, the more easily was furious rabies produced. On the other hand, the inoculations of small quantities of virus greatly prolonged the duration of the incubation; and if the dilution be pushed beyond a certain limit, which is not very high, the inoculation produces no effect. But while these small quantities do not induce rabies, the animal is still susceptible to the infection in subsequent inoculations, that is, the first inoculation confers no immunity. 7. As had been already observed in the dog, so in the rabbit, there may be a remission of the early symptoms of rabies, with a recurrence of the disease some time afterwards. This occurrence is, however, very rare both in the dog and the rabbit, while in the fowl it frequently takes place. 8. Numerous experiments have been made with regard to the alleged attenuation of the virus of rabies by the action of cold; but the results have been entirely negative. 9. The certainty of inoculation by intra-venous injection of the virus, proves that the hypothesis of its passage from the periphery to the nerve centres by means of the nerves, cannot be regarded as its sole channel of propagation, and that in most cases its absorption takes place through the circulation. 10. The passage of the virus through different species of animals, permits of a more or less considerable modification of its virulence. Rabbits, guinea-pigs, fowls, monkeys, all take rabies; and when, by successive inoculation, the virus attains a kind of fixity proper to each genus, the different viruses vary greatly in strength, and differ appreciably in this respect from the canine virus, the virulence of which has become fixed by its numerous passages from dog to dog, by means of bites, from time immemorial. M. Pasteur is no believer in spontaneous rabies. At the present time we are in possession of a virus which imparts rabies to a rabbit in seven or eight days, with such constancy, that we are able to assign to within some hours, so to say, the duration of the incubation, measured by the change of temperature, or by the first manifestation of the symptoms. We also possess a virus which will give rabies to the guinea-pig in five or six days, with not less constancy in the duration of the incubation. As the nearest approach to man, M. Pasteur is at present engaged in a series of experiments upon the passage of rabies from monkey to monkey 11. In a former communication, M. Pasteur stated that he had some dogs in his laboratory which had proved insusceptible to all modes of inoculation; but at that time he was unable to state whether they were naturally insusceptible to the poison, or had been rendered so by some of the circumstances to which they had been submitted. He now believes that they were not constitutionally insusceptible, for he has now discovered a practical method of rendering the dog insusceptible to rabies at will. Considering, however, that the inoculation of rabies may be very prolonged, and that this may always throw doubts on the proofs adduced, he asks the Academy to give credit for a time to his assertion, that this insusceptible condition may be produced by a system of inoculation. He possesses at the present time 23 dogs which have been subjected to virulent inoculations without danger. "To thus render the dogs insusceptible to rabies would be not only a solution of the question of prophylaxis of this affection in the dog, but also in man, as man never contracts rabies but as the result

of a bite, the virus from which proceeds directly or indirectly from the dog. May not human medicine profit by the long duration of the period of incubation of rabies, and endeavour to establish in this interval of time, before the appearance of the first hydrophobic symptoms, a condition of insusceptibility on the part of the bitten persons? But before such a hope as this can be realised, a long path has yet to be traversed."

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 4TH, 1884.

J. WHITAKER HULKE, ESQ., F.R.S., President, in the Chair.

Fractures of the Sternum and First Costal Cartilage.

MR. ARBUTHNOT LANE read a paper on one way in which the sternum may be fractured. After referring to the views of M. Maisonneuve and Mr. Rivington, Mr. Lane stated that the first cartilage was one inch and a half deep at its attachment to the manubrium, while the second cartilage was only five-eighths of an inch, so that when one cartilage was depressed by the clavicle, it tended to cause the manubrium to rotate around an antero-posterior axis, and also affected the opposite cartilage. If the pressure exerted were very great, one or both first costal cartilages might be broken, together with the sternum, without there being any displacement of fragments. Or only one cartilage might be broken. If the cartilages were very elastic, and the sternum rigid, it alone might yield, as in an experiment he had made on the dead body. In this case, the manubrium was ossified to the gladiolus. A heavy blow was struck on the outer extremity of the clavicle, a fracture of the sternum at a point which corresponded to the junction of the first and second pieces resulted, the fragments not having been displaced. In other cases, the ligaments binding down the inner extremity of the clavicle might give way, and dislocation upwards ensue. As exemplifying this last result, he showed a specimen from the museum of Guy's Hospital, in which the inner end of the clavicle had been dislocated upwards, and the ossified first costal cartilage was fractured on the same side. Its line of fracture was irregular, and not vertical, as in fracture of the ordinary elastic cartilage. The sternum was not fractured. Mr. Lane showed a specimen similar to one which he had shown at the Society last year. The first cartilages and sternum had sustained the same fractures, no other bones in the body showing any sign of fracture. A case recorded by Dr. Bennett, *Dublin Quarterly Journal*, served also to illustrate his view. A heavy weight fell on a man, fracturing many bones. That which had fallen on the clavicles had fractured both first cartilages and the sternum at the junction of the first and second pieces. He believed that fracture of the sternum or cartilages, or of both, were not so very uncommon as the scanty literature on the subject would suggest; also that M. Maisonneuve had no clear idea of how the clavicle transmitted force to the sternum, which it did only indirectly by pressure on the first rib and cartilage. M. Maisonneuve apparently arrived at this conclusion by observing the frequent concomitance of fracture of the scapula and clavicle with that of the sternum. The sternum and cartilages, when fractured by this means, would present very little sign during life, nor at a period long after the injury, owing to the fractures remaining in apposition. It was very difficult to decide, in many ossified first cartilages, whether they had been fractured or not, as they frequently presented a very irregular outline, owing to abundant deposit of new bone, which might either be the result of fracture, or thrown up to support the joint formed in this situation.

MR. ROGER WILLIAMS thought that Mr. Lane had not laid enough stress upon the part played by the ligaments attached to the clavicle, especially the rhomboid, trapezoid, and conoid ligaments, in transmitting the shock of a blow.

MR. LOCKWOOD had examined the specimen, and doubted whether there was really any fracture of the sternum. The evidence of fracture of the costal cartilages was only slight, there was some heaping up of cartilage and bone, but if there was a fracture, it was curious that it should be symmetrical. He had examined very many bodies in the dissecting room at St. Bartholomew's Hospital, and found a similar condition in several.

MR. BRUCE CLARKE corroborated the observations of the last speaker as to this condition being found not infrequently in the bodies of old people, he thought that the condition was probably the result of rheumatic changes occurring towards the end of life.

THE PRESIDENT alluded to the position of the first rib, and said that being rigid it played the part of a "holdfast."

MR. LANE was quite familiar with the conditions mentioned by Mr. Lockwood and Mr. Clarke, but considered that his own specimen presented characters quite distinct.

Neoplasm of the Knee-joint.

MR. BARWELL described the case of a little girl, aged twelve, who had come under his care, suffering from an affection of the knee-joint. At first there had appeared to be a simple synovitis, but some months later it was evident that the case was one of malignant disease. Amputation of the thigh was therefore performed. The tumour was soft, jelly-like, and semi-transparent; it arose from the tuberosities of the tibia, and microscopically was mainly composed of a network of spindle-cells. He was desirous of pointing out that the distinction between carcinoma and sarcoma was not an absolute one. The former possessed an alveolar stroma, and contained epithelial cells, the other did not, but it was undoubted that a cancer might be followed by secondary growths of a purely sarcomatous nature. He considered that malignancy was a morbid entity, and might be carcinoma or sarcoma, according to the structure in which the growth originated.

MR. BUTLIN observed that the suggestion had often been made that all malignant growths should be included under one generic term, and subdivided according to their seat of origin.

DR. CREIGHTON could not agree with Mr. Barwell, that all sarcomas were infiltrating; many of them were surrounded with a capsule, and could be removed without any recurrence. As to the proposed term "cacoma" for all malignant growths, he thought it was a sufficient objection to it that it was cacophonous.

MR. GODLEE agreed with Dr. Creighton, that the term malignant could not be applied to all sarcomas. Myeloid tumours were often very benign, and at other times most malignant. True cancers (epithelial growths) were always malignant.

THE PRESIDENT said that Mr. Barwell would adopt two bases for the classification of tumours, one anatomical, the other clinical; such an arrangement would, in his opinion, be very inconvenient.

MR. BARWELL in reply said, that he was of opinion that all sarcomas were malignant, though in different degrees; even an epulis might infiltrate, and required very free removal. Subcutaneous sarcomas, too, might recur. The difference between malignant growths was only one of degree, and he emphasized his previous statement, that the secondary deposits in a case of true cancer were often pure sarcomata.

Insular Sclerosis.

DR. HALE WHITE showed specimens taken from a case of insular sclerosis. For twelve months before admission to the hospital, the patient had had nervous tremblings,

and subsequently to this weakness of the legs, which at last became so bad as to preclude walking. Latterly, her memory had been very deficient. She had always been a drunken dissolute woman. On admission, she was in such a moribund condition that a very thorough examination could not be made; but it was observed that there was tremor on movement, the right pupil was larger than the left, the grasp of the hands was feeble, and she spoke very slowly. She died shortly after admission. The necropsy was made 26 hours after death. In the left arachnoid cavity, and covering the greater part of the parietal lobe, was a hæmorrhage evidently recent; arteries at the base of the brain thickened. Scattered about in the white substance below the level of the corpus callosum were four grey patches, looking very like grey convolutions. The medulla was obviously diseased, many reddish-grey patches being present in it. The rest of the brain was healthy. In the spinal cord, many similar patches were scattered about in various parts, but chiefly in the crossed pyramidal tracts. In many places, the whole of the white matter of the cord was affected. The kidneys were granular and hypertrophied. Microscopical examination of the cord and brain showed characteristic sclerotic appearances. In many sections, it could be seen that the ingrowth of new tissue was directly connected with the rays of tissue prolonged in from the neuroglia on the surface of the cord; sometimes the axis-cylinder had completely disappeared, leaving the medullary sheath, and sometimes the medullary sheath disappeared, the axis-cylinder having alone remained surrounded by sclerosed neuroglia. It was pointed out that the chief feature of interest in the case was that it was almost a purely spinal one.

Dr. HADDEN thought that he had seen changes similar to these in a good many cases. The naked-eye appearances in a case of disseminated sclerosis were more important and far more characteristic than the microscopical ones; he agreed that there was some increase of fibrous tissue in the specimens.

Dr. WHITE, in reply, fully agreed with Dr. Hadden as to the much greater value of the naked-eye changes in these disorders, and this had been a very prominent feature in his case. One point of interest was, that the disease was almost purely spinal, which must be considered decidedly rare.

Interstitial Disease of the Ovaries.

Dr. NORMAN MOORE showed the ovaries taken from a married woman, aged 41, who died in St. Bartholomew's Hospital, under the care of Dr. Church, from cirrhosis of the liver. The liver showed an increase of fibrous tissue, with marked atrophy of the cells. The ovaries were large, smooth on the surface, and very dense; there was great thickening of the tunica albuginea, and of the perivascular tissue throughout the ovary. This was especially distinct in the zona vasculosa. Numerous compressed Graafian follicles were visible, both small and large. Dr. Matthews Duncan had suggested that this change in the ovaries was a cause of sterility in intemperate women. Mr. Lawson Tait had also mentioned cirrhosis of the ovaries, but the disease was rare, and had seldom been minutely described. The new fibrous tissue of the ovaries appeared more recent than that of the liver.

Dr. GOODHART asked if there had been any ascites present, as it had been suggested that in cases of ascites the ovaries might absorb fluid, and thus changes might be set up.

Dr. MOORE, in reply, said that there was a good deal of ascites, but the ovaries did not contain any fluid; it was worthy of note that the kidneys did not show any cirrhotic change.

Epithelioma of the Ear.

Mr. BOWLBY exhibited the ear of a man, aged 70, which had been removed for epithelioma. The disease commenced in the helix, and was attributed to an injury from some lime, three and a half years previously. When first seen there was an ulcer which had existed for a year and a half, during the next six months it spread to the concha and down towards the pinna. The whole organ was removed, but the growth had returned in the external auditory meatus, and in the glands in the neck. Microscopical examination showed how the cartilage was invaded, its matrix offering considerable resistance to the ingrowth, and becoming necrosed in small portions.

Mr. ROGER WILLIAMS exhibited a photograph of a similar case, and referred at some length to the cases already recorded.

Mr. GOLDING BIRD mentioned a case he had seen some years ago, the disease commenced on the top of the auricle, and there was no glandular enlargement; until the microscopical examination was made, the disease was thought to be rodent ulcer.

Mr. BUTLIN had seen three cases in all, including the present one; he had been surprised that the growth had returned so quickly, as the removal had been very free. In one of the other cases the glands were already involved before operation. The third case was that of an old man, in whom the disease was very limited, and the glands were not involved. There was no recurrence during the remaining three years of his life. In this case Mr. Butlin believed that the disease had commenced in a sebaceous cyst and had hardly spread. As a rule the disease was a very malignant one.

Fibrotic Disease of the Heart.

Dr. SAMUEL WEST showed this specimen taken from the body of a man, aged 40, during life he had been subject to spasmodic pain in the region of the heart, but the clinical history of the case was very imperfect. After his death, which took place suddenly, the viscera were found to be congested, the stomach and intestines showed some ecchymoses, and there was some thickening of the capsule of the liver. There were scars on the penis, presumably syphilitic. The heart weighed 20½ oz., the pericardium was healthy, the cavities were enlarged. On the surface of the left ventricle there were dense fibrous-looking patches, causing an almost granular appearance, this was less obvious on the right ventricle. On opening the heart, the left ventricle was found to be extensively affected, its walls were thinned and composed almost entirely of fibrous tissue, a sort of pouch being formed but not visible from the outside, the valves were healthy. The affected parts were dense and hard, the muscular tissue was slightly fatty. In the right ventricle there were similar but less extensive changes. The specimen was interesting from its being so extensively diseased, from the fact that no definite aneurysm had been formed, and from the probability that the man had had syphilis.

Symmetrical Gangrene with intrathoracic Tumour.

Dr. B. O'CONNOR showed a woman, aged 56, with this condition; pain in the fingers had been the first complaint, then they became blue, cold, and blisters had formed. Four years ago she had had a tumour of the right breast, which had been successfully removed. Three months ago she noticed a tumour in her left breast, and three weeks ago a swelling in her chest, and shortness of breath on exertion. The pain, smarting and burning, was suggestive of arteritis. The patient had also suffered from earache. There was dulness under the left clavicle with enlarged glands in the neck on both sides, especially on the left side. In the second left interspace was a globular swelling, dull on percussion, there was no thrill in it. There was no

dysphagia. There were no signs of heart-disease. There was a tumour in the left mamma, and the glands in the left axilla were enlarged. The liver could not be felt; the abdominal veins were not enlarged. The pulse at the wrist on the right side was visible. The urine was natural. There was slight increase of the white blood corpuscles. He discussed the question as to whether there was embolism or spasm of the minute arteries. The process evidently was not a very chronic one. It appeared that arteritis was more common in women than in men.

Mr. Bowlby could not see any evidence of vascular obstruction in this case. The history pointed rather to nerve disorder, and the fingers closely resembled the condition which was seen after section of the nerves. The new growth pressed rather upon the nerves than the arteries.

Living and Card Specimens.

Mr. H. H. Clutton. A man with primary sarcoma of the tonsil.

Mr. Lockwood. Right aortic arch.

Mr. Golding Bird. Micrococci from infective osteomyelitis.

Dr. F. C. Turner. (1) Tuberculosis of lungs, caseous bronchial glands and tubercular meningitis after scarlatina. (2) Intus-susception of the small intestine with polypoid fatty tumour.

Mr. H. H. Clutton. (1) Nasal calculus. (2) Central myeloid sarcoma of the tibia which produced no expansion of the bone.

Mr. J. Hutchinson, jun. (1) Ankylosis of second and third cervical vertebræ. (2) Superior vena cava on the left side.

Dr. J. F. Goodhart, for Dr. Pye Smith. Chronic ulceration and thickening of tracheal mucous membrane from the presence of a rubber tracheotomy tube.

Dr. R. Percy Smith. Stomach from a case of sulphuric acid poisoning.

Dr. Seymour J. Sharkey. (1) Two vertebræ of a small fish which had been impacted in the larynx, and removed by tracheotomy, the child, aged one year, died of double pneumonia. (2) Œsophagus, stomach and intestine from a case of poisoning by carbolic acid.

Dr. Samuel West. Stomach from a case of carbolic acid poisoning.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Saturday, March 1st, 1884.

John Marshall, F.R.S., President, in the Chair.

The Annual Meeting of this Society was held on Saturday evening last. The President took the chair at 8 o'clock, and declared the ballot open for the election of officers for the next year, and nominated Mr. Christopher Heath and Dr. Bernard O'Connor as scrutineers. At the close, the President announced that the gentlemen nominated by the Council had been duly elected. (The list of names was published in our issue of last week.)

Dr. Douglas Powell then read the report of the President and Council. The Society was congratulated on the continued prosperity of its affairs, and on the increase of the number of its Fellows, who now numbered 720, including honorary, resident, and non-resident Fellows. During the past year, eighteen Fellows had died, and three had resigned; while 35 new Fellows had been added. The expenditure had somewhat increased; this was due to the augmentation in the salaries of the resident librarian, and some other officers, and in part also to the increased cost of publishing the proceedings, which, in addition to abstracts of the papers, now included verbatim reports of the speeches made at the meetings throughout the session. Furthermore, the abstracts of the papers were distributed amongst the Fellows previous to being read. The advantages of these changes were evidenced by the larger number of Fellows who took part in the discussions, and by the increased interest to which they gave rise. The session had opened with an oration from Dr. Ferrier, on the progress made during the past few years in the study of the physiology and pathology of the nervous system, to which he (Dr. Ferrier) had so largely contributed, that the Council had last year awarded him the second Marshall-Hall Prize. The library was reported to be in a flourishing condition. Four hundred and sixty-one works had been added during the preceding year. These additions included some valuable books from the library of the late Sir Thomas Watson, presented by his son, Sir Arthur Watson. An alteration in the by-laws would be proposed (it was subsequently passed), by which honorary resident Fellows were to be allowed the use of the reading room and library on the same terms as the ordinary Fellows of the Society. The Council expressed their deep regret at the loss they had sustained by the death of their late resident librarian, Mr. R. B. Wheatley. They were thus deprived of a most devoted and efficient officer, of unequalled skill in his profession. When about to fill up the vacancy thus created, they received applications from 93 candidates, and after very careful consideration their choice had unanimously fallen on Mr. J. B. Bailey, a member of the Association of Librarians, who for sixteen years past had served as sub-librarian at the Radcliffe Library at Oxford.

Mr. John Wood proposed the adoption of the report; this was seconded, and carried unanimously.

The President then gave his usual address. He first alluded to the losses which the Society had sustained, and he read a brief memorial *éloge* on each of the Fellows. The list included Dr. Hudson, Dr. Evans, Dr. F. H. Wilson, Dr. Marion Lewis, Mr. McNaught, Dr. Gully, Mr. Harding, Dr. Colomiati Meredyth, Dr. Hilton Fagge, Dr. Robert Druitt, Mr. Phillips, Dr. Stewart, Dr. Jones, and Dr. William Farr, C.B., F.R.S. He next adverted to the origin and growth of the various scientific societies, both in London and in the Provinces, pointing out how they went hand-in-hand with greater activity in professional work, and with a remarkable increase in medical literature. He also referred to a possible amalgamation of the society with some of the other societies; he thought, however, there were many insuperable difficulties in the way at present. Dublin had recently effected an amalgamation of the Medical Societies; but the conditions were quite different from our own—the numbers concerned in Dublin were only about one quarter of those who formed the London societies; and the difficulties would be great in proportion. The President then thanked the Society for the honour they had twice conferred upon him in electing him president; he hoped that continued prosperity would attend them.

Mr. Savory then proposed a vote of thanks to the retiring President for the very efficient manner in which he had discharged the duties of this arduous office. This was seconded by Dr. Day, and carried by acclamation.

Dr. W. Overend Priestley next proposed a vote of thanks to the retiring Vice-President (Dr. Russell Reynolds), and to the other retiring Members of Council. He spoke of the labour and attention entailed in the discharge of these duties, and of the very prosperous condition of the Society. This was seconded by Mr. R. W. Parker, who said that the vote was specially due in acknowledgement of the increased activity which had marked the meetings during the past two years. The vote was carried unanimously. This concluded the ordinary business of the Society.

Dr. Wilson Fox, one of the honorary librarians, then rose to suggest some memorial by the Fellows in appreciation of the long and faithful services of their late resident librarian. "Mr. Wheatley," he said, "had dependent upon him during his life a sister and a niece: it had always been with him a matter of great anxiety that they were not provided for; he proposed, therefore, that a subscription list should be opened, and that the proceeds should be expended in the purchase of an annuity for these ladies. Mr. Wheatley's long continued and zealous services to the Society—services which were rendered to all alike without distinction—were so well known and so fully appreciated, that he had little doubt that the Fellows would come forward and assist in carrying out a work, which would be so much in accord with Mr. Wheatley's own desires, could he have

been consulted in the matter. Mr. Savory warmly seconded this resolution, and it was carried unanimously. A subcommittee (with power to add to their number) was then appointed, to consist of the President (Dr. George Johnson), Mr. Marshall, Mr. Savory, Mr. Hulke, Dr. Wilson Fox, Mr. Cooper Forster, and Mr. Berkeley Hill. The presidents of the Pathological, Clinical, and Obstetrical Societies were to be invited to join them.

The Society then adjourned.

ACADEMY OF MEDICINE IN IRELAND.

Surgical Section.

The Radical Cure of Hernia.

Mr. Wm. Stokes (Professor of Surgery, Royal College of Surgeons) read a paper on "The Radical Cure of Hernia by Peritonæal and Intercolumnar Suture." Having alluded to the fact that the subject of the radical cure of hernia had, from remote antiquity to the present, engaged attention, he mentioned that, although it could not be said definitely that the wished-for goal had been attained, still, thanks to Listerism, much had been gained. In proof of the fact that the feasibility of obtaining radical cures by operation is a question *sub judice*, he referred to the writings of various eminent surgical authorities, some of whom are opposed to, and others in favour of, such attempts being made. The object of the various operations hitherto performed, namely, obliteration of the neck of the sac, with approximation and union of the tendinous structures about the hernial passages, and also the methods of "dissection," were discussed; and the author believed that the method recently adopted by himself and his colleagues was simpler and more efficacious than any of those he mentioned. It consisted in the insertion through the open neck of the sac, and close up to the external abdominal ring, of a deeply indented carbolised catgut suture or sutures, according to the size, width, and depth of the neck, and this is followed by the approximation or closing of the canal and pillars of the ring by the insertion of two or more sutures of a stronger or more durable material, such as chromicised catgut, gilt or silver wire. In fact it was a dual system of suture, one being peritonæal, and the other intercolumnar. Four cases were recorded in which this plan was adopted. In three of these successful results were obtained. The unsuccessful case was one of congenital inguino-scrotal hernia. The hernia reappeared three months after the operation. The failure was probably due to his not having used a sufficiently durable material for closing the pillars of the ring, that which the author employed being chromicised catgut. In future he would employ in similar operations either carbolised silk or silver wire.

Mr. Barton read a paper on the same subject. At the outset he laid down the principle of treatment, viz., that the internal ring should be so effectually closed as to prevent the hernia coming down into the canal at all. He described Wood's operation as a combination of this and of the old plan of invagination, which latter should be discarded, and the closure of the ring perfected. The direct operation was recommended, refreshing the edges of the ring, as recommended by Gross, or cutting away the sac, as practised by Czerny. Three cases were related —(1) that of a boy, aged three, who had a hernia as big as a cocoa-nut, which could not be held up by any truss; (2) that of a young man who had been rejected at the physical examination at Sandhurst for a small inguinal hernia; and (3) a child, three years old. In all three the internal ring was closed with silver wire, which was left in, but in the first case it had to be removed subsequently, as the wound reopened. The result was, that in the first case the child left the hospital with a truss, but the hernia again came down. In the second case the result was satisfactory, and the patient was admitted to Sandhurst. In the third the child was exhibited, but sufficient time had not elapsed to pronounce upon the result. The cases proved—first, that the operation was readily performed; secondly, that (with antiseptic precautions) it was safe; and thirdly, that it was advisable, if not directly necessary, to retain the wire sutures *in situ*.

Mr. Kendal Franks also read a paper on the same subject, by the method of dissection, the name which has aptly been applied to it in Dublin. The only two methods which seemed to him to give promise of extensive application in the future were:—(1) Suture of the abdominal openings without removal or ligature of the sac; and (2), suture of the abdominal openings after excision of the sac. The first of these operations was applied to a recent hernia before the sac had had time to become enlarged and thickened. The method consisted essentially in cutting down on the tumour, carefully exposing the sac, which should be returned into the abdomen, and then drawing together the openings by means of two or three sutures of stout silver wire, which should be left permanently in position. He advised that the skin should be drawn slightly upwards before the first incision was made, as by that means the skin would not be directly over the wires. Thus union by first intention was promoted, and the permanent retention of the silver wire assisted. Three cases were related in which this method was employed: Case 1. Medical student, aged seventeen, presented a direct inguinal hernia of the right side, which had suddenly made its appearance after a long run of six miles a few days before; the operation was performed on April 1st, 1882; the wound healed by first intention, and the dressings were discontinued on the eleventh day; he wore a light truss for sixteen months, but since August 1st last had given it up; he had had no return of the hernia, and never experienced any trouble from the wires, though within a year after the operation he won a four-mile bicycle race. Case 2. A man, aged 24, of intemperate habits, suffered from an oblique inguinal hernia of the right side, the result of a fall off a car. The operation was performed 3rd July, 1882, but owing to the excitable restlessness of the patient it was found impossible to keep the wound aseptic, and a fortnight later it was necessary to remove the wire sutures. The wound healed by granulation, and the patient left the hospital without any tumour. Subsequently, however, the hernia returned, and though it was reduced in size, it descended somewhat into the scrotum. The patient could not be induced to wear a truss. Case 3. A gentleman, aged 21, had suffered for two or three years from a small oblique inguinal hernia of the right side. As it was increasing in size, he was operated on on May 1st, 1883. two silver sutures being employed. Two dressings only were applied, the wound being completely cicatrised before the eleventh day. He went out driving on the twelfth day, and during the summer used to bathe without a truss. He had not since had any return of the hernia, and there was not any impulse. The second method had a wider scope, and was applicable even to cases of complication which would have rendered any other operation impossible. In the case of a man, aged 50, the subject of a large direct inguinal hernia of the left side, measuring six and a half inches in the longitudinal and three inches in the transverse diameter, the operation, which was performed February 1st, 1883, showed that the thickened sac was adherent in its whole length to the spermatic cord, which was spread out in a thin layer over its posterior surface. The sac was cut across, about an inch below the deeper opening in the abdominal wall, which readily admitted the tips of three fingers. Three stout silver sutures were passed through the structures forming the external and internal openings, including the peritonæum on both sides, and by drawing them firmly together and twisting the ends the openings were completely closed. As much of the sac as it was possible to dissect away from the cord was removed. The wound healed by first intention, and the patient made a good recovery, in spite of a hæmatocele which occurred on the second day, as a result of the patient's walking about the ward the night after the operation. When last seen, on April 7th, there was no sign of the hernia and no impulse.

Mr. W. Thornley Stoker said there were two distinct classes of cases—the class in which an operation was compulsory, where strangulation existed, and the class where operation was a matter of election to promote the patient's convenience rather than save his life. In nearly all cases of operation for femoral hernia a permanent cure had been

effected; but in large inguinal ruptures a radical cure was not so frequent, and in such cases the peritonæum should be sutured. In the second class of cases he advocated Wood's operation. He did not think it mattered much whether the pillars of the ring were drawn together or not. A cure was effected by the inflammation exciting the exudation of coagulum and lymph, which drew the parts together, thereby closing the opening as with a cork. He protested against leaving in the wire suture where the ring was sutured, in inguinal hernia, as most unscientific and unsurgeon-like, and a possible source of future trouble.

The PRESIDENT mentioned the result of nine cases in which he had operated by different methods. In a case of inguinal hernia on the left side in a male, he exposed the neck of the sac. He then drew it down and applied a ligature, divided the neck and removed the sac below the ligature. This case was successful when seen two years afterwards. He performed a similar operation in the case of a female suffering from a small inguinal hernia in the centre and above Poupart's ligament, which became strangulated; and she was perfectly cured, having been seen five years afterwards. In a femoral hernia on the left side in a female aged eighteen, he opened the sac, pulled down, excised, and closed the edges, and the result eighteen months afterwards was most satisfactory. He adopted the dissection method in other cases, but without improving the hernia. In cases where the canal was greatly distended by a large hernia, it would be almost impossible to have a radical cure follow any radical measure, and the most likely was by excision of the sac.

The discussion was then adjourned.

At the adjourned meeting, Mr. ORMSBY said that many of the present operations were, with few exceptions, old operations revived under new names. Mr. Stokes' procedure was bold and somewhat heroic; but with the aid of antiseptics and a complete regard to the details of Listerism, operations in abdominal surgery might be performed with the greatest impunity. Having unsuccessfully attempted to cure by the radical method following the plans suggested by Wutzer, Wood and Gerdy, he himself devised a plan eighteen months ago, and carried it out successfully in the case of a young man, aged 26, who suffered from oblique inguinal hernia (reducible). The hernia was reduced and the skin and cellular tissue of the scrotum invaginated and pushed up with the finger as high as possible through the external abdominal ring into the inguinal canal. Then a flat needle, with handle attached, armed with a stout piece of silk ligature, was passed along the finger fixed in the inguinal canal, and made to pierce upwards and outwards until it passed through the anterior wall of the canal, so that the eye of the needle was apparent through the skin. The end of the ligature having been caught and secured, the needle was withdrawn. The other end of the same silk ligature was then inserted into the needle which was passed up along the finger still fixed in the inguinal canal, and passed through the anterior abdominal wall as before. The two ends of the ligature were then drawn up and tightened, and a small piece of bougie about two inches long placed between the two ends of ligature which were tightened and tied firmly across the bougie close to the point where they emerged from the skin. A glass rod having been placed in a solution of liquid ammonia, was passed into the invaginated canal, so as to abrade the surface and excite adhesive inflammation or ulceration, and thus finally obliterate the canal. Lastly, a harelip pin or accupressure needle was passed deeply through the tissues transversely to the inguinal canal at a point midway between the external abdominal ring and the position of the ligature tied over the bougie. Care must be taken not to pass the needle behind, but immediately in front of the cord. A ligature was then placed over the two ends of the pin or needle, compressing firmly the intervening tissue, the pin or needle to remain until it ulcerated its way out. The ligature over the bougie was also allowed to ulcerate its way out. In Mr. Franks' cases, he would prefer to use chromicised gut instead of silver wire, which he would on no account leave embedded in the abdominal wall lest trouble might ensue.

Mr. CORLEY was of opinion that the direct operation by dissection was better in theory, and more likely to succeed in practice, than Wood's. It appeared to him that Gerdy's, Wood's, and such like operations were blindfold or ostrich surgery. There could be no doubt that in strangulated hernia the operation ought to be the radical one. Thinking over why some cases were successful and others not, he remembered that Lawrence, in his book on ruptures, published in 1838, had remarked that one of the predisposing causes was an elongated condition of the mesentery and a lax condition of the peritonæum; and the same author detailed a number of methods for the radical cure, one of the earliest and mildest operative procedures being incision, *i.e.*, dividing the integuments and opening the sac after the integuments had been replaced, and then dressing the wound, so that it should heal by granulation. That was, practically speaking, the operation by dissection. The point to be considered in connection with the radical cure was, how far interference was justifiable.

Mr. HAYES mentioned that he had, twelve years ago, performed Wood's operation with satisfactory results in the case of a female who suffered from inguinal hernia, which could not be adequately supported by a truss. She got married, bore three children, and was seen ten years afterwards perfectly free from danger of hernial protrusion. In the case of a youth, he performed the same operation, but the boy had to wear a truss. An operation was employed in America, to effect the radical cure by the injection of some irritating fluid within the inguinal canal and round the abdominal ring; and Dr. Warren had introduced the procedure at Guy's Hospital, operating upon a case of Mr. Bryant's, which did well. Mr. Bryant wrote that the man wore a truss afterwards, and six months later the hernia had not come down. He did not, however, perform the operation himself, as it seemed a mere matter of chance where the injected fluid went, and he preferred the operation by dissection.

Mr. THOMSON said the question always to be determined before undertaking the operation of dissection was, what was the risk to the patient—was it justifiable to subject the patient to a risk, whatever it might be, by cutting down upon the hernia, or cutting away the sac with portion of the peritonæum, when perhaps he could get on satisfactorily by the use of a well-adjusted truss? But there was the preliminary question, whether the patient, especially if in the lower walks of life, would not run a greater risk of strangulation of the hernia and death, than by an operation performed under favourable conditions. His impression was, that where the case was prepared properly, and in all respects favourable for operation, the patient would have a better chance of life by the operation to relieve him of his hernia. As to the material to be used in stitching the pillars of the ring, he operated on a case of enormous scrotal hernia of 25 years' standing, without stitching the ring, there being a fair stump that acted as a plug for the opening, and the result was satisfactory. The result of his experience in children was, that he would not use chromicised catgut to ligature the pillars of the ring. He objected to catgut, and preferred wire or silk.

Dr. WARREN was certain that the operation by dissection would be *par excellence* the operation of the future. He saw no objection to leaving in the wire suture.

Dr. BALL said he proposed an addition, carrying out an addition to the operation by dissection in a case he had under treatment in Sir Patrick Dun's Hospital—namely, by torsion of the sac, so that portions of the neck of the sac in the inguinal canal would be occluded.

Mr. O'GRADY called attention to an accident that befel him in an operation, several years ago, on a young fellow. He had made an incision in the skin, invaginating the superficial tissues underneath, and sewing these and the pillars of the ring together. Nothing untoward attracted attention at the time of the operation; but after some days the wound suppurated, large quantities of urine were discharged from it, and the child died. It was obvious that the needle had gone through the bladder. To obviate a similar result in all future cases, he emptied the bladder. Mr. Thomson's argument in favour of operative procedure was brought home to himself on two occasions recently when he was telegraphed for and his visit countermanded.

Dr. Foy, Mr. Nixon, and Dr. Ashe having taken part in the discussion, the authors of the papers respectively replied.

Mr. Stokes said, a surgeon would not be justified in sacrificing the testicle until he was satisfied that its function was destroyed. He had determined, undeterred by the discussion, to use metallic sutures in his next case. He denied that Wood's operation was haphazard.

Mr. Barton said the question, whether invagination ought to be superseded by the plan of direct closure of the ring, would be decided by the future record of operations. He should continue to employ metallic sutures, taking care as to their being safely placed.

Mr. Franks referred to Buchanan's method of treating children by bandaging them in a St. Andrew's cross as very successful. In operative procedure the open had an enormous advantage over the closed, the surgeon being able to see everything he did. He did not agree with Mr. Thornley Stoker as to the condition of lymph sufficing to approximate the rings. It could not be so efficacious as the additional obstruction afforded by the wire, the objections to which were only theoretical.

The section then adjourned.

OBITUARY.

STEVENSON BUSHNAN, M.D.

The death of Dr. Stevenson Bushnan will cause old readers of the *Medical Times* to recall the early history of this journal, and to lament the loss of one who once held towards it the most important and prominent position. When, in 1851, Dr. Alfred Swaine Taylor, who succeeded Dr. Robert Willis as editor of the old *Medical Gazette*, resigned the editorial chair of that journal on its ceasing to exist as a distinct publication, Dr. Bushnan, who had held the editorship of the *Medical Times* since 1849, was appointed editor of the new paper—the *Medical Times and Gazette*. Every man connected with the literary work of both journals went over to the new editor, and Taylor wrote to many of the more active of his old contributors, expressing confidence in his successor. A painful defect of speech prevented Dr. Bushnan from being all that he himself desired to be; but he made up for this defect by his admirable courtesy, generosity, and fairness of judgment. After remaining at his post for a few years, Dr. Bushnan determined to leave literature and to become resident physician to the Laverstoke House Asylum, Salisbury. Here, for many years, he had ample opportunity of following the artistic and classical pursuits in which he delighted; but, unhappily, as age advanced, he became too soon unfitted for active work, owing to failure of his eyesight; and, having made but little provision for himself, was obliged to retire near to Southampton, and to live in a much simpler and plainer way than he had been accustomed to in his better days. A few years ago, by the exertions of one or two old friends, he became a resident brother in the Charterhouse. His death took place, after a protracted illness, on Sunday, February 17th, 1884.

Dr. Bushnan was a Doctor of Medicine (by examination) of Heidelberg, and a Fellow of the Royal College of Physicians of Edinburgh. He took his first diploma at the Royal College of Surgeons of Edinburgh, in 1830, and was for a time Senior Physician to the Metropolitan Free Hospital. He was the author of several valuable papers and works; one of his first essays, published in 1833, being on "Parasites in the Blood," a study which "he commenced with spirit and ended with promise." In 1837, he wrote "The Philosophy of Instinct and Reason;" and in 1851, he indulged in a contest relating to the eminent Harriet Martineau. In 1854, he was busy contributing to *Orr's Circle of the Sciences*, a work which enjoyed considerable popularity; and in 1860, he wrote "Religious Revivals in Relation to Nervous and Mental Diseases." The works are all characterised by an extended knowledge of mental phenomena and a genial style.

GENERAL CORRESPONDENCE.

THE MEDICAL BILL.

[To the Editor of the Medical Times.]

Sir,—With reference to the Medical Bill, the following few remarks may not be inappropriate to the attention which is rife between the medical licensing bodies. In the competition for the public services all medical graduates meet on equal terms, and as the army draws the largest number, I have taken from the Army Lists, from 1862 to 1883 inclusive, the names and qualifications of the two gentlemen at the head and of the two at the bottom of the ranks at each examination for this period. There are 66 in each category. In the case of an individual belonging to different corporations, I give the first registered as the one to which the party is assigned. The result is the following, viz.:—

	Top.		Bottom.
Royal College of Surgeons, England	20	..	10
English Universities	4	..	1
Royal College of Surgeons of Edinburgh	5	..	6
Scottish Universities	11	..	12
Dublin University	7	..	7
Queen's University in Ireland ..	14	..	8
Royal College of Surgeons in Ireland	5	..	22

It will be seen from these facts what corporation produced the highest percentage of good men and what of mediocre men at the army test. Genuine medical reform should be directed towards obtaining Poor Law, Prison, Lunacy, and Sanitary medical officers by competitive examination open to all graduates, promoting to inspectorships through the respective departments, and leaving the teaching and licensing bodies free. The public will in their own instance select the fittest according to fancy, judgment, and other influences.

Yours truly,

JOHN ROCHE, M.D.,
R. In. Med. Service.

Mount Clarence, Kingstown.

PRIMARY LATERAL SCLEROSIS OF THE CORD (?).

[To the Editor of the Medical Times.]

Sir,—The last number of your valuable journal contains a paper by Dr. Russell, of Birmingham, on "Cases of Spinal Disease," in which it is stated that Dr. Dreschfeld, of Manchester, "has at last, by anatomical evidence, settled the question of the existence of such a disease as primary sclerosis of the lateral columns of the cord." I find the same statement in the second edition of Dr. Ross's able "Treatise on Diseases of the Nervous System" (vol. ii., p. 71), where the author attributes to his colleagues, Professors Morgan and Dreschfeld, "the honour of having been the first to prove by dissection the connection of the symptoms of spasmodic paralysis with lateral sclerosis in a primary and uncomplicated case of the disease;" and says that "they found symmetrical sclerosis of the pyramidal strands, and *an entire absence of any other lesion*" (l. c. p. 82).

As these statements, emanating as they do from well-known neurologists, are likely to prejudice a question which is still completely unsettled, I shall feel obliged if you will allow me to remark that the account given by Dr. Dreschfeld, first in the "Transactions of the International Medical Congress," and afterwards in the *Journal of Anatomy*, does in no way support the view taken by Drs. Russell and Ross; for it shows quite clearly that the case of which so much has been made, was not one of uncomplicated lateral sclerosis, inasmuch as not only the white pyramidal column, but also the *giant-cells of the grey anterior cornua were found to be diseased*. These cells are stated "to have been wasted from the upper dorsal region down into the lumbar portion of the cord. There was simple atrophy, pigmentary atrophy, and occasionally complete absence of whole groups

of these cells." It is difficult to understand, after such a plain statement, why this case should constantly be quoted as an uncomplicated instance of primary lateral sclerosis.

All the other cases bearing on this point, and recorded by Charcot, Pierret, Schultz, Hopkins and others, are equally unsatisfactory; and it must be confessed that the disease in question has, as yet, eluded the grasp of the pathologist. It, therefore, appears to me preferable to employ rather the clinical name of "spastic paralysis," than the anatomical one of "primary lateral sclerosis;" as the former does not, like the latter, commit us to any definite theory which, for the present at least, is entirely unsupported by pathological evidence.

I am, Sir,

Your obedient servant,

JULIUS ALTHAUS, M.D.

48, *Harley Street, February 25th*, 1884.

INVENTIONS AND IMPROVEMENTS.

SCOTT'S MIDLOTHIAN OAT FLOUR.

It is admitted on all hands that oats possess much more valuable properties as a food-stuff than any other form of cereal, but as ordinarily prepared they contain too much vegetable fibre to serve as the main element in the food of any people but those with the strongest digestions. Of course where the bowl of coarse oatmeal porridge is taken every morning, "dietetically" as the euphonism has it, the woody fibre is an important element, causing just that slight irritability on the part of the intestinal mucous membrane, which is necessary to healthy periodical action. But if oat flour is to take the part in the dietary of infants and invalids, to which its flesh-forming properties entitle it, it must be freed from all indigestible matter. It is professed that this is done in Scott's Midlothian oat flour, an analysis giving only three parts per 1,000 of vegetable fibre. The flour is a fine impalpable powder, with the characteristic flavour of the oat; it makes a very palatable and digestible porridge, but one that is somewhat too gelatinous for healthy appetites. For infants and invalids this quality, however, would be a recommendation.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 28, 1884:—

Boyd, Joseph Thos., Northcote Road, Wandsworth Common.
Brooks, Jabez Pratt, Tollington Park, N.
Hayward, Arthur Ernest, Maxilla Garden, Notting Hill, W.
Hichens, Frank, Redruth, Cornwall.
Morinni, Wm. Raoul de, Myddelton Square, E.C.
Plowman, Sidney, St. Thomas' Hospital.
Satchell, Chas. Geo., Caversham Road, N.W.
Simms, Henry, Pedmore, Stourbridge.

The following gentlemen also, on the same day, passed their Primary Professional Examination:—

Michell, Jno. Chas., The London Hospital.
Roberts, Hugh Jones, Guy's Hospital.

The Dublin Sanitary Association.—The eleventh annual report of this useful voluntary Association was submitted to a general meeting of the subscribers and supporters, held on Thursday, February 21st, in the Leinster Hall, Molesworth Street, Dublin. Mr. Jonathan Pim, president, occupied the chair. From the report, it appears that the association numbers 237 members, and the income for the year amounts to 147*l.* 1*s.* 1*d.* Unfortunately, the expenditure was decidedly in excess of the income, so that there is now a small balance against the association. The chief topics touched upon in the report were the approaching congress of the Sanitary Institute of Great Britain in Dublin next October, the progress of the "sanitary protection" branch of the association, which is now in full working order, the sanitary survey of the city, recently undertaken by the public health committee of the corporation, the insufficient collection of fines imposed for breaches of the sanitary laws, the premature discharge of patients from fever hospitals, the notification of infectious diseases, the overcrowded condition of tenement houses, the inaccessibility of the public health office of the corporation, the continued existence of slaughter-houses in the city, the reopening of houses closed as unfit for habitation, and the death-rate of Dublin. The death-rate in Dublin for the year 1883 was 29·1 per 1,000, as compared with an average rate of 28·9 for the ten years preceding. A table was appended showing the rates in the six largest English and Scotch towns for the same period, from which it appears that Dublin retains its position as the most unhealthy of the great towns of the United Kingdom. The adoption of the report was moved by Dr. William Moore, president of the King and Queen's College of Physicians, seconded by Mr. Robert O'Brien Furlong, solicitor to the Inland Revenue Department, and unanimously agreed to.

University of Dublin.—*School of Physic in Ireland.*—At the Hilary Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday, Tuesday, and Wednesday, February 11th, 12th, and 13th, the successful candidates passed in order of merit, as follows:—Ninian M. Falkiner, William B. Day and Charles J. Power equal, Reginald J. Windle, Thomas Lyndon, John S. A. Ireland, Robert Morrow, George W. Yeates. In the case of the under-mentioned senior candidates a judgment of *satis respondit* was entered, viz.:—Charles S. Grant, John F. W. Tatham. At the Examination for the Degree of Bachelor in Surgery (B.Ch.), held on Monday, February 18th, and following days, the undermentioned candidates passed in order of merit, as arranged:—Harloe H. Fleming, Charles R. Kilkelly, William B. Day, Thomas Lyndon, Charles H. Blood, William S. Boles, Victor E. Smith, John Cochrane, Richard G. Hanley and John S. A. Ireland equal, George W. Yeates.

University of Dublin.—At the Hilary Term commencements, held in the Examination Hall of Trinity College, Dublin, on Shrove Tuesday, February 26, 1884, the following degrees in medicine and surgery were conferred by the University *Caput* in the presence of the Senate:—*Baccalaurei in Chirurgia.*—Blood, Carolus Holcroft; Boles, Guilelmus Samuel; Cochrane, Johannes Jacobus; Fleming, Harloe Henricus; Hanley, Ricardus Georgius; Ireland, Johannes Stewart Algeo; Kilkelly, Carolus Randulphus; Lyndon, Thomas; Smith, Victor Eduinus; Yeates, Georgius Wyclif. *Baccalaurei in Medicinâ.*—Falkiner, Ninian M'Intire; Grant, Carolus Scovell; Ireland, Johannes Stewart Algeo; Lyndon, Thomas; Power, Carolus Johannes; Smith, Victor Eduinus; Tatham, Johannes Franciscus Walkingame; Thompson, Carolus Herbert; Windle, Reginaldus Joscelyn; Yeates, Georgius Wyclif. *Doctores in Medicinâ.*—Grant, Carolus Scovell; Power, Carolus Johannes.

Army Medical Department.—Surgeon-Major S. K. Ray has been appointed to succeed Surgeon-Major Gasteen, in the command of the Army Hospital Corps Depôt and Training School at Aldershot. Deputy-Surgeon-General R. Wolseley, M.D., has been ordered to Aldershot, to take over the duty of Sanitary Officer of the Division, vice Deputy-Surgeon-General J. J. Thompson, ordered to Dublin. Surgeon-Major P. W. Stafford has been appointed a member of the Permanent Committee on Dress and Equipment, of which Colonel R. Harrison, C.B., C.M.G., is President, vice Surgeon-Major W. C. Gasteen, ordered abroad. Surgeon-Major Charles Edward Wikeley, retired pay, has been granted the honorary rank of Brigade-Surgeon. Surgeon-Major Daniel Murray, M.D., is granted retired pay, with the honorary rank of Brigade-Surgeon.

The Hospitals' Association.—The first Council of the Association contains the following members of the profession: Sir Andrew Clark, Sir Rutherford Alcock, K.C.B., Dr. H. W. D. Acland, C.B., Dr. Bristowe, Mr. Henry C. Burdett, Dr. R. Farquharson, M.P., Mr. Timothy Holmes, Dr. R. H. Lloyd, Mr. Charles Macnamara, Mr. Malcolm Morris, Dr. Quain,

and Dr. Gilbart Smith. It is proposed that the evening meetings of the Association shall be held on the third Wednesday in the month. The first, however, will take place on the 26th March, when a paper will be read by Mr. William J. Nixon, house governor of the London Hospital, on "Difficulties Associated with the Administration of the Out-patient Department, and How Best to Deal with Them." The meetings will probably be held at the rooms of the Medical Society of London, Chandos-street, Cavendish-square, the chair being taken at 8 p.m. Persons desirous of being present at the evening meetings, or becoming members or associates, are requested to communicate with the Secretary, Mr. J. Clifford Smith, at the office, No. 1, Adam-street, Adelphi, who will gladly forward the necessary forms of application.

APPOINTMENTS.

COLLIE, ALEXANDER, M.D., C.M. Aber.—Medical Superintendent to the Eastern District Hospitals, Metropolitan Asylum District.

GARLAND, O. H., M.B., C.M., M.R.C.P.—Visiting Medical Officer to Watt's Hospital, Leith, *vice* Dr. Robert Paterson, resigned.

HODSDON, JAMES, W.B., M.D., M.R.C.P., F.R.C.S.—Extra Physician to the Edinburgh Royal Hospital for Sick Children, *vice* John Playfair, M.D., appointed an Ordinary Physician.

LUCAS, ARTHUR, M.R.C.S. Eng., L.S.A.—Medical Officer to the Eighth District, Newport Pagnell Union.

MACDONALD, ANGUS, M.D., F.R.C.P., F.R.C.S.—Physician to the Royal Maternity and Simpson Memorial Hospital, *vice* Simpson, whose term of office has expired.

MACDONALD, W. F., M.B., C.M.—House Surgeon to the Royal Maternity, and Simpson Memorial Hospital.

POWELL, SIMPSON, M.B., M.R.C.S.—Assistant Physician to the Hospital for Epilepsy and Paralysis, and other Diseases of the Nervous System, Portland Terrace, Regent's Park.

PROWDE, EDWIN L., M.B. Dur., L.F.P. and S. Glas.—Medical Officer to the Workhouse, Sunderland Union.

SPENCE, W., M.B., C.M.—House Surgeon to the Royal Maternity and Simpson Memorial Hospital.

SPICER, R. H. SCANES, M.B., B.Sc. Lond.—Medical Superintendent to the New Infirmary, Fulham, S.W.

WATT, THOS. M., L.K. and Q.C.P. Ire., M.R.C.S. Eng.—Medical Officer to the Hovingham District, Malton Union.

WOOLBY, J.B., M.B., M.R.C.S., L.R.C.P.—Resident Medical Officer to the Queen Charlotte's Lying-in-Hospital.

VACANCIES.

ESSEX AND COLCHESTER GENERAL HOSPITAL, COLCHESTER.—Physician. Candidates must be graduates in Medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London, or Fellows or Licenciates of the King and Queen's College of Physicians of Ireland, or Fellows of the Royal College of Physicians, Edinburgh, but no candidates shall be eligible who practices, or is connected in partnership with any one who practices Surgery, Pharmacy, or Midwifery. Applications, with diplomas and testimonials to be sent to the Secretary, on or before March 19th.

SALFORD AND PENDLETON ROYAL HOSPITAL AND DISPENSARY.—District Surgeon. Salary £80 per annum, with board and residence. Candidates must be legally qualified and registered, and must engage for a period of not less than one year. Certificate of registration and testimonials to be sent to the Secretary, on or before March 10th.

STOURBRIDGE UNION, HALES OWEN DISTRICT.—Medical Officer. Area 4,809 acres. Population 10,980. Salary £60 per annum, including fees.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, LEICESTER SQUARE, W.C.—Assistant Honorary Medical Officer. Applications to be sent to the Secretary, on or before March 10th.

ST. PETER'S HOSPITAL FOR STONE, &C., HENRIETTA STREET, COVENT GARDEN.—Out-Patient Department. Surgeon. Candidates must be F.R.C.S., Eng. Testimonials to be sent to the Secretary, on or before March 17th. The appointment will be made on March 19th.

THE CANCER FREE HOSPITAL, BROMPTON, S.W.—Resident House Surgeon and Registrar.—Honorarium of 75 guineas per annum, with board and residence. Candidates must be members of the Royal College of Surgeons of England, and thoroughly conversant with the use of the microscope. Applications, with testimonials, to be sent to the Chairman of the Weekly Board, 167, Piccadilly, W., not later than March 17th.

THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN, WATERLOO BRIDGE ROAD, S.E.—Resident Medical Officer. Salary £70 per annum, with board, &c. Candidates must be M.R.C.S., and L.R.C.P., or L.S.A., Lond. Applications, with testimonials, &c., to be sent to the Secretary, on or before March 10th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, NEAR EXETER.—Resident Medical Superintendent. Salary £500 a year, with furnished residence, board, washing, and attendance. Candidates must be registered both in Medicine and Surgery, and not less than 30 years of age. Applications, stating age, experience in the treatment of the insane, &c., whether married or single, with testimonials of recent date, to be addressed to the President, Committee of Management, Wonford House, Exeter, endorsed M.S., on or before March 11th.

DEATHS.

CHRISTIE, JAMES, M.D., of Gowanlea, Westfield, Dundee, at Tunbridge Wells, on February 27.

DEMPSEY, M. J., M.D., of 27 Charterhouse Square, on February 29, aged 34.

EASTES, SILVESTER, M.R.C.S., J.P., at London Street, Folkestone, on March 2nd, aged 71.

GREIG, CHARLES, F.R.C.S., at 16, York Place, Clifton, Bristol, on February 27.

HART, W. H., M.R.C.S., L.S.A., at 14, Springfield Place, Bath, on February 27, in his 26th year.

MADDEN, H. R., M.D., at 1, Bloomfield Place, Bath, on February 29, in his 66th year.

REMINGTON, THOMAS, M.D., formerly of Brixton, on March 2, aged 67.

NOTES, QUERIES, AND REPLIES.

THE MARRIAGE OF COUSINS.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—To answer the question of "J.B.W.," at page 307, of your last issue, would occupy far too much of your valuable space. The views of different observers (or rather writers) may be consulted by a reference to section 563 of the "Medical Digest," and since the publication of this work, in 1882, the following papers have appeared: Dr. Liebreich, *Medical Times and Gazette*, vol. i, 1861, p. 372 (*this was omitted before*); Dr. Cameron, *British Medical Journal*, June, 1883, p. 913, and September, 1883, pp. 456 and 608; Dr. Hooper, *Lancet*, December, 1883, p. 1107, also p. 88, June, 1883. In the case "J.B.W." cites, all the writers would agree, I think, in condemning such a marriage.

Obediently Yours,
RICH. NEALE, M.D. Lond.

T. A. Dixon, Esq., Kingston, Jamaica.—Subscription does not expire till July 20, 1884.

Dr. Williams.—The lectures by Professor Flower at the College of Surgeons will be brought to a close on Friday next, the 14th inst. Mr. F. S. Eve, F.R.C.S., the "Erasmus Wilson" lecturer, will commence his "Demonstrations on Some Points in Pathology, illustrated by Specimens from the Museum," on Monday, the 17th inst.

H. M., St. Thomas's Hospital.—The memorials of John Flint South, twice President of the Royal College of Surgeons, are just published by Mr. Murray, and will no doubt contain what you are so desirous of knowing. So long ago as July, 1853, Mr. South moved in the Council that Mr. Edward Arris and Mr. Gale, having severally given the sum of £250 and a house on Snow Hill, for the endowment of lectures on anatomy, and such monies having been improperly merged into the general property of the College, it is due to the memories of the said founders, and as encouragement for similar endowments, that such appointments be revived.

COMMUNICATIONS RECEIVED—

THE DIRECTOR, ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; Mr. SHIRLEY F. MURPHY, London; THE HON. SECRETARY, CLINICAL SOCIETY OF LONDON; Mr. T. M. STONE, Wimbledon; THE HON. SECRETARY, OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, London; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY, THE PARKES MUSEUM, London; Dr. T. D. ACLAND, London; Dr. JAEGER, London; Dr. NORRIS WOLFENDEN, London; Dr. JAMES RUSSELL, Birmingham; Dr. F. J. B. QUINLAN, Dublin; THE HON. SECRETARIES, EPIDEMIOLOGICAL SOCIETY, London; Dr. CLIFFORD ALLBUTT, F.R.S., Leeds; Mr. JOHANNES ALT, Frankfort-on-Maine; Dr. CAMPBELL BROWN, Liverpool; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. F. W. ELSNER, London; Mr. J. T. W. BACOT, Seaton; Mr. J. MAYTHORN, Biggleswade; THE SECRETARY, IRISH GRADUATES' ASSOCIATION, London; THE SECRETARY, ROYAL MICROSCOPICAL SOCIETY, London; Dr. GEORGE COATES, London; Miss LANKESTER, London; Dr. W. SQUIRE, London; Dr. ALEXANDER, Liverpool; THE REGISTRAR-GENERAL, Queensland; Mr. WYNTER BLYTH, London; Dr. R. NEALE, London; Dr. J. H. CLARKE, London; THE REGISTRAR GENERAL FOR THE PUNJAUB, Lahore; Mr. J. MURRAY, London; THE SECRETARY, MEDICAL SOCIETY OF LONDON—THE REGISTRAR-GENERAL, London; Dr. J. R. WOLFE, Glasgow; Dr. HILLIARD, Aylesbury; Dr. CLIFFORD BEALE, London; Mr. CHATTO, London; Mr. JONATHAN HUTCHINSON, F.R.S., London; Dr. J. W. MOORE, Dublin; THE EDITOR, THE SANITARY ENGINEER, New York; THE HON. SECRETARY, VICTORIA INSTITUTE, London; Mr. MARK H. JUDGE, London; Mr. J. L. FOULDS, Glasgow; Mr. J. BELLAMY, LOCAL GOVERNMENT BOARD, London; Mr. NOBLE SMITH, London; Mr. G. A. CARDEW, Cheltenham; THE SECRETARY, ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London.

BOOKS RECEIVED—

Studio dei Bacteri, pel Dott. C. Bergonzini—Physiological Cruelty, &c., by John H. Clarke, M.D.—Report on the Sanitary Condition of the Whitechapel District for the quarter ending December 29, 1883—Hastings and St. Leonards-on-Sea as a Health and Pleasure Resort—Bacteria and the Germ Theory of Disease, by Dr. H. Gradle—Fifth Biennial Report of the State Board of Health of Maryland—Cassell's Technical Educator, Part I.—The Book of the Horse, by S. Sidney, Part I.—London Municipal Government: Opinions of the Press—Experimental Chemistry, Part III., by J. Emerson Reynolds, M.D., F.R.S.—Annual Address delivered before the American Academy of Medicine, by H. O. Marcy, Am. M.D.—Annual Report of the Hereford County and City Lunatic Asylum for 1883—Museum of the Royal College of Surgeons

of England: Catalogue of Osteological Specimens, Part II. Mammalia—Annuaire des Spécialités Médicales et Pharmaceutiques—The Life and Work of St. Paul, by F. W. Farrar, D.D.—C. H. May & Co.'s Press Manual, 1884—History of the London Water Supply, &c., by Adam Gladstone—Annual Report of the Royal Edinburgh Hospital for Sick Children—The Origin of Contagia, by A. M. Brown, M.D.—Annual Report of the Tottenham Sanitary Association.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt fur die Medicinischen Wissenschaften—Centralblatt fur Klinische Medicin—Philadelphia Medical News—Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—Weekblad—Nederlandsch Tijschrift voor Geneeskunde—National Anti-Compulsory Vaccination Reporter—Revue Sanitaire—The Veterinarian—Revue Mensuelle de Laryngologie—The Analyst—Archives Générales de Médecine—The Monthly Homœopathic Review—The Australasian Medical Gazette—The Leisure Hour—The Girls' Own Paper—The Sunday at Home—Friendly Greetings—The Boy's Own Paper—The Glasgow Medical Journal—The Liverpool Echo—The Birmingham Medical Review — The Archives of Pediatrics — The Therapeutic Gazette—The Practitioner.

APPOINTMENTS FOR THE WEEK.

March 8. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Capt. Abney, "Photographic Action."

10. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON.—Dr. Corfield will read a Paper "On the Connection of Disease with Defective House Sanitation."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Seventh Lecture "On the Principal Types of the Human Species."

11. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, 8 p.m.—The Institute will meet at 4, St. Martin's Place, W.C., when the following papers will be read:—(1) A. L. Lewis, Esq., F.S.A., "On the Longstone and other Prehistoric Remains in the Isle of Wight; (2) Admiral F. S. Tremlett, "On the Cromlec of Er Lanic; (3) W. J. Knowles, Esq., "On the Antiquity of Man in Ireland; (4) H. Prigg, Esq., "On a Portion of a Human Skull of supposed Palæolithic Age from near Bury St. Edmunds.

ROYAL INSTITUTION, 3 p.m.—Prof. Gamgee, "Animal Heat."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The following papers will be read:—Dr. Champneys (fourth contribution), "On Artificial Respiration in Stillborn Children: an Experimental Enquiry;" Mr. J. B. Sutton, "On the Value of Systematic Examination of Stillborn Children."

12. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—Meeting at 8 p.m. George Gulliver, M.D., will read a Paper "On the Etiology and Pathology of Cholera." A Council Meeting will be held at 7.30 p.m.

HUNTERIAN SOCIETY.—7.30 p.m.: Council. 8 p.m: Mr. Poland, "A Case of Acute Suppuration of the Hip and Elbow Joints;" Dr. G. H. Savage, "Cases on the Borderland of Insanity and their Treatment."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Eighth Lecture "On the Principal Types of the Human Species."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m.—Meeting. The following papers will be read:—Professor Abbe, "On the Distance of Distinct Vision;" T. B. Rosseter, "Further Observations on *Stephanoceros Eichhornii*."

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 p.m.—Mr. Hartridge, "Tumour of Choroid;" Mr. R. Marcus Gunn, "Case of Arterio-Venous Communication on the Retina;" Mr. A. Stanford Morton, "Hæmorrhage in Region of Macula;" Mr. Adams Frost, "An Artificial Eye;" Dr. A. H. Benson, (1) "A Case of Coloboma of the Iris, with drawing," (2) "Some Drawings of Ophthalmic Cases;" Mr. Nettleship, (1) "Case showing Blood-vessels in the Vitreous," (2) "Lymphatic Nerves of Orbit and Eye," (3) "Central Senile Guttate Choroiditis" (4) "Central Senile Areolar Choroidal Atrophy," (5) "Thickening of Retinal Vessels in a case of Glaucoma. Communications: Mr. S. Snell, "Two Cases of Retinal Glioma, in one of which shrinking of the Eyeball occurred without Perforation;" Dr. G. A. Brown, "A Case of Severe Conjunctivitis, with Formation of Membrane on the Corneæ, caused by Whisky thrown in the Eyes;" Mr. McHardy, "Some Clinical Observations which appear to indicate a means of reducing the danger from Malignant Glaucoma, while increasing the efficacy of Iridectomy in the Treatment of Chronic Glaucoma;" Mr. G. E. Walker, (1) "Acute Glaucoma of four weeks' duration, with recovery of good Vision," (2) Sympathetic Ophthalmia Evulsion of False Membranes and part of Iris, Recovery of Good Vision," with living specimens; Dr. W. R. Gowers, "On Some cases of Spasm of the Ocular Muscles;" Dr. D. McKeown, "On a means of Diminishing the Blindness from Purulent Ophthalmia in Infancy;" Dr. A. H. Benson, "Some Observations on Jequirity, and its Value as a Therapeutic Agent;" Mr. R. M. Gunn and Dr. J. Anderson, "A Case of Nerve Disease with Ocular Symptoms, including alleged Uniocular Diplopia;" Mr. Nettleship, (1) Cases of Recovery from Amaurosis in Infants," (2) "Cases of Retro-ocular Neuritis."—Living and Card Specimens at 8 p.m.

PARKES MUSEUM, 5 p.m.—Dr. Henry Veale, Deputy Surgeon-General, "On Organization and Management of Field Hospitals."

ROYAL INSTITUTION, 3 p.m.—Prof. Tyndall, "The Older Electricity."

14. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY OF LONDON.—The following Papers will be read: Dr. S. West, "Multiple Hepatic Abscesses in a Boy;" Mr. Butlin, "Foreign Body in Œsophagus—Œsophagotomy;" Dr. Finlay, "Cases of Enteric Fever associated with Rheumatism;" Mr. Davies Colley, "Case of Dislocation of the Spine;" Mr. Edmund Owen, "Perforating Ulcer of the Foot" (living specimen); Mr. Golding-Bird, "Dislocation of the Patella" (living specimen).

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Prof. W. H. Flower, LL.D., F.R.S., F.R.C.S., will deliver his Ninth Lecture "On the Principal Types of the Human Species."

ROYAL INSTITUTION, 9 p.m.—Mr. J. N. Langley, "Mesmerism."

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MEDICAL TIMES
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THE NEUROSES OF THE VISCERA.

BEING THE GULSTONIAN LECTURES DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS, LONDON,

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LECTURE I.—[Abstract.]

THE lecturer said that he intended to deal more especially with such neuroses of the viscera as were manifested in pain. In the text-books these affections had not received the full treatment that their difficulties and importance demanded, and in general practice the part played by the nervous system in visceral disorders was insufficiently seen. Neuroses above the belt were apparently far better understood than those below it, a fact partly due to the impulse given to the study of thoracic disease by the discovery of Laennec, and partly to the more vivid functions enjoyed by those parts, as compared with the brooding and silent life of the organs of vegetative existence. His attention would be almost entirely confined to the pains and storms of the lower or abdominal regions, and he would say but little of the neuroses of the upper chambers. As to the neuroses of the viscera of the pelvis, which had received an attention of too exclusive a bearing, he would deal with them by way rather of illustration than of description.

The first strong impression he had received from the facts of the class with which he was about to deal, was obtained from the index of his case-books, where he was struck each year by the small number of cases entered as dyspepsia. "How could this be?" he asked himself repeatedly. Martyrs to dyspepsia were to be found at every street corner. He thought of the stomach and its work, of the greediness or recklessness which made it the helpless receptacle of all sorts of rubbish; he pictured to himself that viscus distended with greasy, acidulous or trashy matters sodden in half-fermented gooseberry juice or sour claret, and stood amazed that it not only resisted destruction, but patiently drew order out of disorder, and sweetness out of foulness. In the journals he read of men of lofty endowments whose lives became accursed by dyspepsia, and in other sheets he found many columns of advertised solace, from wind pills, to the pills of the American doctor, the virtues of which had been thus rendered—

> Hæc jecur instigat, stimulos hæc renibus addit,
> Ambulat arcanas hæc taciturna vias;
> Attamen hæc eadem latebras penetralibus imas
> Mordacis buxi more modoque petit.

The medical journals and the lists of the large drughouses told of the same cry for help against the demon of dyspepsia, while patients were so confident

of the form of their enemy, that they dictated their own diagnosis to the physician, and demanded his specific. How could we explain this catholic wailing over a disease that is not? Was there in the word dyspepsia any confusion or equivocation sufficient to account for its indefinite use? It was almost trivial to remark that dyspepsia was not a disease, but a symptom. But used in this sense, its meaning was almost futile, as futile as it would be to apply the term dyskinesis to all the different forms of difficulty, unsteadiness, or pain in walking, and to treat them under that heading in a single chapter. And yet we had only to turn to any modern text-book to find pages devoted to the symptom of dyspepsia, that which is accidental and consequent being raised to the place and name of a definite malady. It was necessary to clear away this confusion, and to set out as distinctly as possible in their natural groups the several classes now heaped unreasonably together. Perhaps by this method we might succeed in reducing the word dyspepsia to an indefinite connotation, such as that of the word cough, which signified only an inconvenient and notorious symptom, common to many maladies.

The four chief groups of stomach disorder attended with dyspepsia were :—

1. Those due to grave disease of the stomach itself—cancer, ulcer, dilatation, &c.
2. Less grave diseases of the stomach, as the simpler catarrhs, acute and chronic gastritis.
3. Disorders depending on no visible structural change, but consisting in some disorder of the work or secretions of the stomach—functional disorders.
4. Disorders depending on some influence coming from blood or nerve, from which influence visible local changes may or may not ensue.

He would dismiss the disorders of the first class, and those of the second class also, so far as they could be distinguished. Between these cases and those obviously neuralgic, there were a number of cases which it was difficult to classify, it being difficult to decide whether the stomach derangement was an expression of some general derangement, or a substantial ailment and the cause rather than the consequence of any more general perturbation. And there were cases, still more difficult to interpret, in which dyspeptic symptoms were no doubt due to disordered work or secretion in the stomach, though that in its turn might be due, not to any primary defect in the organ, but to some cause lying outside it in the first instance, perhaps in the nervous system. A sudden nervous shock might completely arrest digestion, and it was conceivable that lesser degrees of nervous perturbation might keep up a continual dyspepsia. Then there were cases in which patients, suffering from other symptoms of nervous derangement, complained of the gathering of a dense yellowish oily fluid in the stomach every morning, which, if not moved by vomiting, would act as a foul ferment on all food subsequently introduced. This symptom he believed to be due to some perturbed innervation of an otherwise healthy stomach, and it was curable by treatment planned mainly upon that diagnosis. A further difficulty in these cases was, that the process might be reversed, and a slight catarrh or some graver local mischief might set up nerve perturbations, which would overshadow and conceal the primary cause of their occurrence. Thus, in some cases, the diagnosis between ulcerous and simple gastralgia was in certain stages impossible. Often, however, that which reason and examination failed to discern might be revealed by the test of treatment. In order not to fall short of a rational therapy, it was necessary to see with some clearness, how the pure neuroses of central origin were related to the nervous phenomena awakened by pre-existent or foregone local maladies. Advancing from the simplest cases to the more complex, he would first consider those in which disorders of digestion occur, as a consequence of general nervous exhaustion. Such cases might occur in men and women of very various habit of body, and the symptoms were various. He found two kinds of dyspepsia in persons over-worked. In the one, the tongue was clean, not red, but pallid, œdematous, and with indented edges. The patient had no appetite, and the little he ate caused a weary sense of repletion. In the other class of cases, the tongue was bulky and also indented, protruded slowly, and spreading forth as it issued. It was thickly coated, especially towards the mid-line and back, with a brownish fur. The complexion was muddy, and the countenance depressed, and there was pain, or an indescribable uneasiness at the vertex and round the occiput. A like state of tongue, and a like sluggishness of stomach, liver and colon might be seen in apoplexy, and were then clearly secondary to the troubling of the brain, though the converse was usually held. All attempts in these cases to clean the tongue and set the stomach right with the stock rhubarb and soda mixtures, with pepsines, with calomel, colocynth, or colchicum, met with disappointment. Strong tonics, such as quinine, might be prescribed with benefit, but rest and upland air would beat all medicines. Here the disorder of stomach was due to a neurosis, vascular or other, and curable only on that understanding.

The lecturer then proceeded to illustrate his contention by illustrations taken from other viscera. Jaundice, constipation and diarrhœa, he said, might be due to nervous causes acting alone, to local causes acting alone, or to local changes reinforced by nervous changes. The uterus, again, had its maladies of local causation, its maladies of nervous causation, and its maladies of mixed causation, and to assume that all uterine neuroses were due to coarse changes in the womb itself was as dull as to suppose that the face could never be the seat of tic unless there were decayed teeth in the jaw. He did not doubt that a very large number of uterine disorders, which were elevated to the place and name of diseases of the uterine system, were but manifestations of neuroses, for all neuroses were commoner in women than in men. On the other hand, it was equally unjustifiable to put down all abdominal pain in women as hysterical.

"A neuralgic woman," said Dr. Allbutt, "seems to me to be peculiarly unfortunate. However bitter and repeated may be her visceral neuralgias, she is either told she is hysterical or that it is all uterus. In the first case she is comparatively fortunate, for she is only slighted; in the second case she is entangled in the net of the gynæcologist, who finds her uterus, like her nose, is a little on one side, or again like that organ is running a little, or it is as flabby as her biceps, so that the unhappy viscus is impaled upon a stem, or perched upon a prop, or is painted with carbolic acid every week in the year except during the long vacation when the gynæcologist is grouse shooting or salmon catching, or leading the fashion in the Upper Engadine. Her mind thus fastened to a more or less nasty mystery, becomes newly apprehensive and physically introspective, and the morbid chains are rivetted more strongly than ever. Arraign the uterus and you fix in the woman the arrow of hypochondria, it may be for life."

It was time, continued the lecturer, that the reaction from this gynæcological tyranny was completed. No man, it was true, limited by the bounds of human intelligence, could possess a fine knowledge of medicine, surgery, and obstetrics, but every man could and must have a good all-round knowledge such as would enable him to take the main bearings of any case which might come to him. For his part, no convention arrested him

from using the speculum and uterine sound, when required for diagnosis. This done, he was able to judge under whose care a patient might best be placed. He repeated that the main lines of the diagnosis of any malady whatsoever should be within the province and abilities of any medical man whatsoever. The physicians had been feeble folk in bearing the taunts of the gynæcologists, whose stories of long pain and sickness uncured by medical futilities, but rapidly cured under uterine medication, could be checked and even mated by double the number of cases rescued by the physician from the sofa, the manipulations, and the mental abasements of uterine specialism. The wisest and most disinterested of gynæcologists now knew how narrow had been the views, and how deceptive the data which had passed current in their school, and they were ready to declare that they must share the culture of a great part of their field with the physicians. The latter had been at least as much to blame, in having committed the central blunder of stupidly confusing between the hysteric and the neurotic subject. A hysterical person was one of feeble purpose, of limited reason, of wilful impulse, of irregular or depressed appetites, of indefinite and inconsistent complaints; or, when hysterical in a lesser degree, was capricious, listless, wistful, attractive, yet having always the chief notes of hysteria—selfishness, and feebleness of purpose. Such a person was no doubt a member, a degenerate member, of the neurotic family, but her adjective ought not to be applied to the neuralgic members of the group, who were often rarely endowed with capacity, endurance, and imagination, forming a large number of those in the second rank who are the salt of society. The typical neurotic man was described by the lecturer as active and slightly built, meagre and mostly of sallow complexion, with hollow cheeks and temples; the hair straight, fair, and sparse, the features sharp, lips thin, and skin dry. The tongue was generally narrow and pointed, with often a light silvery coating on the dorsum. The pulse when most tranquil ranged between 70 and 80, and the heart's apex might be seen and heard to beat sharply. The conversation of such a person was lively and voluble, often keen and brilliant. He was subject to great fluctuations of spirits, being gay in society and brisk in business, but dejected and fretful at home. Such a patient was the heir of every true neurosis from insanity to toothache. If a woman, she was liable to uterine and ovarian neuralgias and hyperæsthesias. The neurotic woman ought not to be called hysterical. She was sensitive, zealous, managing, self-forgetful; while the hysterical woman was languid, purposeless, introspective and selfish. Of the flock of women who lay under the wand of the gynæcologist, a preponderating number were neurotic, and their uterine and ovarian disorders were either wholly neurotic or so reinforced by neurosis as to depend chiefly upon general medicine.

Dr. Allbutt then gave details of an illustrative case, in which a neurotic young lady who had suffered from uterine neuralgia and concomitant dysmenorrhœa and leucorrhœa, and who had been treated locally for a year or two, was entirely cured by general treatment. The case, he thought, was one which could be multiplied a hundredfold; it was one of the class of cases which form the greater part of those which are caged up in London back drawing-rooms, and visited almost daily for uterine disease. He asserted that, in neurotic subjects, uterine laxities, moderate displacements and catarrhs owed their continuance, and often their very initiation to an atonic state of body, and to a special instability of nerve which might show itself in local trophic changes and in perverted secretions. To attempt to cure such a malady by local means, was as wise as to try to cure a syphilis by antiseptic dressing of its ulcers. This was well known by our more robust, more clear-sighted and more true gynæcologists; but others, with their reason bounded by the confines of the pelvis, attempted to stem the tides of general and diathetic maladies, with little Partington mops of cotton wool on the ends of little sticks. Later on he would recall the truth which should be ever before us, that the fundamental difficulty in all neurotics, not hysterics, was their nutrition.

"A shrewd old Yorkshire doctor once said to me," Dr. Allbutt observed in conclusion, "'It's no use, my lad, putting the hands right upon the clock face, if you have not cleaned the works.' Gentlemen, we are all one-sided. I speak to-day from my own one-sidedness, and my convictions are upon the side of cleaning and repairing the works. Sometimes, no doubt, when the general state of the health is restored, some local trouble, set up originally by the constitutional state—be it gout, scrofula, or what not, smoulders on, forgotten as it were, after the general malady is cured. For such local trouble, diathetic treatment no longer avails, it must be wiped out by some local alterative, but on the other hand, to contend daily with local troubles which daily are regenerated by some vicious habit of the whole system is to roll up daily the shameless stone of Sisyphus."

Lecture II.—[Abstract.]

After commenting on the fact that gastralgia, one of the sharpest arrows in the armoury of pain, was so briefly dismissed in many medical works as a malady of "hysterical women," the lecturer said that this symptom was common enough in men also. It was the chief of all the neuroses of the stomach, but around it gathered, in more or less close association, flatulence, vomiting, hyperæsthesia, and miseries such as distension, sinkings, cravings, and loathings of food. As in angina pectoris and pseudo-angina, so in gastralgia the spinal nerves might be included in the paroxysms, as well as the visceral nerves. Taking the ten years from 1874 to 1883, he found in his case-books that he had reliable notes of 139 cases of gastric and abdominal neuralgias, after all doubtful and trivial cases, all cases complicated with substantial disorder of the uterus or other organ, and all hysterical cases had been eliminated. These patients were subject to neurotic or neuralgic affections lying under the diaphragm and above the pelvis, mostly gastralgias. The majority of these gastralgics were women, in the ratio of two to one. The affection occurred at all ages from fourteen to sixty, being most common from twenty to forty-five, and tending like migraine to die out in middle life. It came on earlier in woman than in man, apparently by some ten years. In fully 80 per cent. of the cases it was associated with migraine or neuralgia of face or head, the two affections alternating. Other disorders associated with gastralgia were asthma and palpitation; attacks of slow or intermittent pulse formed another characteristic symptom. In a lady who suffered from marked gastralgia, attacks of dull prolonged pain in the region of the heart and under the left shoulder blade, with very slow (48 to 50), intermittent and irregular pulse, were brought on at once by putting her child to the breast, even before any milk was withdrawn. In another case, a male, aged 37, liable to violent attacks of gastralgia, suffered also, though less frequently, from "heart spasms," in which the pulse became much enfeebled, and, according to his doctor's account, was slowed down as low as twenty in the minute. Physical exertion did not bring on the attacks, and there was no organic fault. A lady, aged 33, suffered, especially after fatigue or abbreviated sleep, from intense aching at the heart, coming on at four or five p.m.; she had to lie down and "press the heart." She was subject also to gastralgia. Another lady, aged 43, subject to severe menorrhagia, but free from

persistent affection of the womb, suffered occasionally from gastralgia, and also from attacks of stabbing pain at the apex of the heart, intense cardiac oppression, and all the symptoms of angina pectoris.

Diagnosis in these cases depended less on the character of the attacks, than on the other records. The attacks were commonly due to such losses as menorrhagia or severe leucorrhœa, or to prolonged mental distress, and were not directly produced by bodily exertion. The pains in some cases were more extensive than was usual in angina. About twenty per cent. of the cases occurred in men. In a gentleman of neurotic habit, attacks with marked signs of true angina diminished and entirely ceased as his fortunes mended. The tendency to retardation of pulse apparently brought these cases into the group of vagus neuroses, with asthma and gastralgia. The phenomena of pain and spasm were probably due to the pneumogastric nerve and the intercostal and spinal nerves associated with it, while the faintness, sinking, distension, palpitation, abdominal pulsations, flatulence, retching and vomiting, pyrosis, diarrhœa, and so forth, might be attributed to the sympathetic alliances. As well as pseudo-angina, cervico-brachial and intercostal pains were found with gastralgia. A lady, a sufferer from severe gastralgia, had nocturnal attacks of pain down the left arm, which felt quite benumbed and useless. Another lady had ordinary gastralgia, attended with pain running into the left sub-mammary and axillary regions, and into the left arm. At the beginning of her attacks she passed urine frequently. Another lady, subject to migraine and cephalalgia for years, was also subject to attacks "pinning the shoulders tight," and girdling her with pain round the waist, which almost stopped the breathing; after some hours she vomited, and the pain departed. In a similar case in a man the attacks culminated, not in vomiting, but in diarrhœa. Another curious symptom which occasionally came with gastralgia was yawning.

In some cases of gastralgia vomiting took a very prominent place, and was sometimes difficult to distinguish from the vomiting of migraine. The latter, however, commonly occurred in the morning, was more periodic and at longer intervals, while the vomiting of gastralgia was irregular in its occurrence, and more dependent on the ingestion of food. The vomiting of migraine might occur without headache, as that of gastralgia might occur without stomach-ache, and illustrative cases of this were quoted. One lady, after suffering from migraine for nine years, lost her headaches, but still suffered from attacks of vomiting, during which she had to keep as quiet as if she had a sick headache. She was a type of the more highly endowed neurotic, and was much benefited on economising her strength, and resting at times of *malaise*. Another lady, equally free from functional derangement, had very similar symptoms. Both cases derived much benefit from a mixture of bromides and hypophosphites. Several cases were quoted as examples of vomiting associated with gastralgia. A male, aged 50, had been liable all his life to sick headaches, alternating with gastric attacks, also attended with vomiting. For two years past his trouble had mainly been vomiting in the morning, a little phlegm only being ejected; at such times he was unable to retain food until dinner time. This appears to have been gastralgic vomiting, and he was cured by a course of bromide of ammonium with hydrocyanic acid, followed by a course of Easton's syrup.

It was somewhat remarkable, continued Dr. Allbutt, that though migraine and gastralgia very commonly arose in the same patient, and though both were often attended with vomiting, yet they seldom or never occurred together. He suspected, therefore, that the vomiting of migraine was not identical in mode with that of gastralgia. In the latter it might be reflex, in the former it might be allied to the vomiting of encephalic tumour and of concussion. Cases in illustration of this were quoted; one was that of a male, aged 23, who woke every morning with depression, nausea and loss of appetite, and after free vomiting of nothing was all right; he was cured by guarana, and was thought by the lecturer to be a case of migraine *sine cephalalgiâ*. In another case, a lady, aged 35, there was the same nausea and vomiting in the morning, worse especially when she was much below par; she also expelled a great deal of wind, clear water ran from her mouth, and there was at the same time pain between the shoulders; the patient had a soft uterus, and suffered from intense supra-orbital neuralgia; in this case the stomach was at fault. A third case carried us a step farther. A lady, aged 41, suffered from languor, followed by intense pain at the stomach, and vomiting of clear water only; the attacks sometimes recurred as often as four times in 24 hours, and were often attended with a "screwing" pain in the back; not infrequently she had the vomiting without any pain. These last two cases would lead us to believe that pyrosis for the most part is a gastric neurosis, and it would be found that the subjects of it belonged to the neurotic class. Regurgitation was also, in some cases, a purely reflex neurosis, and not always due to an error in digestion. A case was quoted in which a young man constantly suffered from this symptom, without any evidence whatever of dyspepsia. He was attacked by facial neuralgia, and the regurgitation at once ceased, and had not recurred. This symptom was doubtless due to an irritability of the muscular walls of the stomach, setting up excessive contraction under the stimulus of digestion. Another form of vomiting had to be considered—vomiting on the full stomach. This terrible malady had been but ill discriminated, being mixed up with hysterical and uterine vomiting. The former was curable by uterine treatment, and hysterical vomiting was consistent with fatness, whereas gastralgic emesis led straightly to emaciation. It came on with or without pain, but in both cases the cause was cognate if not identical. Dr. Salter had recorded a case in which this affection had alternated with spasmodic asthma. It was distressing to hear of such cases being treated almost with gibes as hysterical. Happily they were not common. The malady might properly be called gastralgic vomiting, seeing that the mode was the same as in the cases wherein pain was also a factor. For instance, in one case painless vomiting followed the meals, and severe gastralgia of the ordinary type came on in nocturnal seizures after the manner of its cousin, asthma. In another case, a young lady, after being subject to facial neuralgia, was attacked by gastralgia after eating; this pain vanished and she became subject to gastralgia on the empty stomach only. This in its turn disappeared and vomiting set in, all food being ejected; she made a good recovery on arsenic. These cases led up to those which similated gastric ulcer, and in which diagnosis was almost impossible. They occurred in young women, and were marked by the sequence of ingestion of food, severe pain in the stomach, vomiting and relief; and if this was accompanied by the vomiting of blood, the diagnosis of ulcer became almost inevitable, and yet, according to the correctness of our judgment, must our treatment be helpful or positively mischievous. The two classes of cases, ulcerous and pseudo-ulcerous, were about equally common; emaciation was perhaps rather more usual in the latter than in the former, but a safe diagnosis was best reached by a careful review of the patient's life-history, diathesis and associated symptoms, the discovery of neurotic antecedents often helping us.

The lecturer then passed on to consider hyperæsthesia of the stomach, which he said was not always or

even generally associated with vomiting. The state much resembled the irritable uterus of Gooch and the irritable spine of Teale and the Griffins, all of which maladies, though often coincident with hysteria, were, nevertheless, essentially independent of it, and occurred also in the higher class of neurotics. Irritable stomach was a grim reality in many cases, though hyperæsthesias and anæsthesias as functional disorders no doubt belonged also to the hysterical class, and it might often be hard to say, in a given case, where active neurosis ended and where a brooding persuasion of pain began.

Dealing with the *anorexia nervosa*, cases which have been published by Laségue and Sir William Gull, the lecturer said that it was no whimsical malady but a definite complex, consisting in part of objective symptoms. It occurred in young women who inherited a decided neurotic taint, and five objective symptoms were always present—namely, amenorrhœa, constipation, sub-normal temperature, slow pulse, and cold extremities, all observable long before they would appear as simple results of inanition. In some cases the pain which followed the use of food was agonising, but in most the pain was absent or insignificant, and there was simply an invincible distaste for food. He had not found vomiting present in the majority of cases. Hyperæsthesia of the stomach might be met with in anorexia nervosa, and then it was a grievous addition. Such cases were constantly confounded with dyspepsia. A solicitor, aged 31, complained of "grievous indigestion," pain coming on soon after meals, and lasting from one to two hours; his tongue was quite clean, his secretions normal, and he had no offensive flatulence. All food gave him pain alike, but fatigue or annoyance increased his liability to the torment. He had previously had severe neuralgia in the head, and a well-marked but brief attack of melancholia, and his family history was neurotic. He was cured by Easton's syrup. But the diagnosis was not always so easy, and cases were quoted in illustration of this. In one case, a lady, aged 22, who suffered from intense pain after food, with vomiting and consequent relief, was greatly benefited by warmth, a result worthy of pointed reference, as such treatment would not probably relieve the pain of ulcer. It must be remembered, however, that in organic disease of the stomach the pain might be independent of food, and thus closely simulate simple gastralgia.

There yet remained a very characteristic symptom of gastralgia, viz., flatulence, which in typical cases was a portentous thing. It might concur with pain, or come on independently of it. That it was of other origin than the mal-digestion of food, was, he thought, imperfectly realised by the profession at large, though this, in striking cases, was obvious. It recurred often with the same periodicity as gastralgia itself, and, like it, had a fondness for the small hours of the afternoon, or of the early morning. "The patient wakes, let us say, at two or three a.m., with a sense of distension which he knows but too well. His body is sometimes flat, but more often has swelled about the epigastric region, and become tight and hard. For a while restless and distressful, he rolls upon his face and rubs his belly until 'the wind begins to move.' This, as it does so, rumbles upwards rather than downwards, and delivers itself by no common eructation, but the working load rises in a series of eruptions, which roll from the throat in successive waves of flatuosity. It is a prolonged storm rather than an explosion, and its tumult will keep the patient raised in bed, heaving in strife with it for an hour or two before he finds ease." Several illustrative cases were detailed, amongst them the following: — A solicitor, aged 30, had been very hard-worked. First came dull heavy pain in the left side. Then he became subject to "painful distensions of the body, not by food," and extreme flatulence. With this came a great dyspnœa like spasmodic asthma, or again dizziness so severe that he feared he might fall. He passed profuse and pale urine at such times, and if a woman he would have been written down a hysteric; whereas he was a man of intellect and good sense, and held successfully a high professional position. The only difficulty in his case was to secure for him a sufficient rest. It was to be noted that in all these cases the wind was quite inoffensive. Whether it were carbonic acid, common air, hydrogen, or what else, he was unable to say, as he had never tested it. By its mode of occurrence, the suddenness and volume of its generation, as well as in its innocence of taste or odour, it was clearly marked off from the foul wind generated by the fermentation of food. It was certainly produced in some way by the agency of the nervous system.

A further symptom of gastralgia was distension of the body, real or false. It was often unassociated with any consciousness of the presence of flatulence, and, moreover, was not confined to the region of the stomach. He had already referred to the horrible deathlike sinkings which belonged to gastralgia, though not always actually coincident with the pain. A male, aged 28, after a few months worry, began to have neuralgic pain in the left arm and up the neck. After this he became subject to nocturnal attacks of "want"—not a craving, nor exactly a faintness, but "an awful emptiness, with a dread at the heart." He was substantially quite healthy, and was soon cured on restorative and tonic treatment. Slighter degrees of this distress often accompanied gastralgia or enteralgia, or with an unaccountable languor preceded them. These subjective sensations were, of course, to be distinguished from the collapse, sometimes alarming in its degree, which was consequent upon the intenser attacks of abdominal neuralgia. The intensity, indeed, of most severe cases of gastro-enteralgia might be seen in the ashen cold face and blue nails. Finally, most gastralgics were subject, not when actually suffering only, but also at all times, to borborygmi. Few people were ignorant of this phenomenon, but it was in neurotics especially that they reached their most lively and garrulous forms. An old and valued domestic, who had lately retired, after twenty-five years of household service, and who presented all the phenomena of gastralgia in an active form, was so embarrassed by these audible internal questionings that she almost withdrew herself from waiting at table. Tonic measures and gentle dumb-bell exercises were most potent to remove this disorder.

CASE OF SYPHILIS IN WHICH THE FINGERS OF ONE HAND BECAME COLD AND LIVID—SUSPECTED ARTERITIS.

By JONATHAN HUTCHINSON, F.R.S.,
Consulting Surgeon to the London Hospital and to Moorfields, and to the Hospital for Skin Diseases, Blackfriars.

THE case which I am about to narrate was under my observation nearly twenty years ago. I have abstained from publishing it — although, in my experience, almost unique—because I was quite unable to offer any satisfactory conjecture as regards diagnosis. It seemed possible that other cases might occur which would throw light upon it. None such have, however, come under my notice, although, as will be explained subsequently, there are certain facts of a less definite character, which may not improbably be allied in real nature. It was only the other day on reading over the notes again, that it occurred to me that the cause of

the symptoms must have been inflammatory occlusion of the arteries of the hand. At the time the case was under care, this diagnosis never crossed my mind, and consequently I failed to investigate certain points which might have confirmed or refuted it, chief amongst these being of course the state of the digital vessels, and of the ulnar artery. In reviewing the case, I confess that it seems strange that this investigation was overlooked, but at the time, my mind was pre-occupied by the hypothesis of nerve cause, to which the very severe pain seemed to point, my notes state that the radial pulse was (at one date of observation) not materially weaker than that of the other wrist, but it will be seen that the symptoms were more marked on the ulnar side. It is, besides, very possible that the arteritis, if such there were, began peripherally, and travelled upwards. Possibly it never reached the larger trunks.

It is in part the impossibility of explaining the symptoms on any nerve hypothesis, which induces me now to resort to that of local arterial occlusion. The fingers affected were not those supplied exclusively by any one of the nerve trunks of the forearm, and there was never any loss of sensation, or of motor power, nor were the local changes such as those which we recognise as common in any form of paralysis. They were lividity, coldness and pain: for the most part indicative rather of disturbance of nutrition and circulation, than of nervous influence. A certain school of observers will probably claim the case as an instance of disease of the vaso-motor system, but in reply to that, I must allege that we know nothing of the occurrence of such symptoms as were here present, in cases in which the ganglia or trunks of the sympathetic have been proved to be involved in disease, or destroyed by injury. I will defer till the conclusion of my narrative the statement of certain other facts which seem to give further support to my diagnosis. The facts recorded in the following notes are given precisely as they were written out, without any theory in view, at the time the case occurred.

Mr. C., aged about 30, was sent to me in April, 1864, by Dr. T. Wright, under whose care he had been at Nottingham. He was known to the subject of constitutional syphilis, and was believed to be suffering also from phthisis. As he was losing flesh, and occasionally spitting blood, it had been felt to be difficult to recommend a continuance of mercurial treatment. On his thighs and trunk were large patches of superficial serpiginous ulceration of undoubted character. From these he had suffered with some temporary alleviations for a year past. About four years ago he had passed through primary syphilis, followed by the usual secondary phenomena. He had several times taken mercury, but never to full salivation. With regard to his chest malady, I requested the advantage of consultation with Dr. Peacock, who, after careful examination, gave the opinion that there did exist undoubted tubercular deposit to a slight extent in the left apex. We advised our patient to spend a few months at different bathing places on the south coast, to live liberally as regards meat diet, and to take specific remedies. The medicine which I prescribed, consisted of ten grains of iodide of potassium, a drachm of the solution of the bichloride of mercury, and a drachm of sal volatile, in one dose, three times a day.

Mr. C. came to me once a fortnight, during the next three months, and as he was steadily gaining ground in all respects, I made no material alteration in the plan of treatment. On June 21st, he returned home, having then for some weeks been quite well of the eruption, and being in much improved general health. He looked strong, and had gained flesh, and lost his cough. At this date, however, he mentioned to me for the first time, a symptom which subsequently became of great interest. It was a constant aching pain in the middle finger of his left hand. There was little or nothing to be seen, and I paid little attention to it, but advised him to use some iodine ointment. He had taken the medicine regularly whilst away, but latterly we had omitted the mercurial, and substituted three grains of the bromide of potassium for it. I now ordered a smaller dose of the iodide to be taken only once a day.

During the next two months Mr. C. remained at home, and enjoyed good general health without any relapse of the eruption. The pain in his middle finger, however, got worse, and after a while, the other fingers were involved also. Various measures were tried by Dr. Wright for his relief, but without much benefit. In September, Mr. C. wrote to me about his hand, and on October 1st, he came up to town to let me see it. It presented a most peculiar condition. The fingers were blue and mottled, as if they had been exposed to great cold, this condition, being most marked at their ends, and diminishing gradually towards the knuckles. The middle finger which had been first affected, was now almost well, and the thumb had never suffered much. On touching the fingers I was struck with their great coldness, and on using the thermometer we found that there was ten degrees difference between corresponding parts of the little, middle, and ring fingers, (near their ends), of the two hands. It was a fine warm morning, and the affected hand had been in a glove, whilst the other had been exposed, so that there was no room for fallacy on this score. The ends of the left fingers mentioned, averaged about 76°, whilst those of the right hand were 86°. On trying the cleft between the middle and fore fingers of the two hands, I found the left 91°, whilst the right was 92°.

The following memoranda were taken at the time:—

"The thumb is quite warm, it is sometimes a little mottled, but never so much as the others.

"The middle finger is warm and less painful than the others.

"The fore-finger, ring-finger, and little finger, are those chiefly affected. They are blue and mottled, and at their pulps are quite livid. On the ring-finger, at its pulp, there is a troublesome sore. It consists of a a sub-cuticular suppuration with livid edges. It is very tender, but in all other respects resembles those which I have seen on fingers after section of nerve trunks. He describes the pain as "an aching smart." It is almost constantly present, indeed, for the last month it has never once been wholly absent. A month ago, for one day, the fingers were suddenly, and without apparent cause, free from pain. It returned the next day. It is severe at nights, and often keeps him awake, he rarely sleeps more than an hour or two at a time. The nails are quite livid. The palm of the hand frequently perspires very much. It is at present covered with drops of sweat. He has no headache, and feels well, if only his hand were free from pain. The sores have not relapsed, and he has now no cough or expectoration. He mentions a curious sensation of tightness about the left eyelids, which he often feels. His pupils are of equal size, and his sight and accommodation-faculty perfect in both eyes. The ring-finger was the last to suffer, and is now the worst. The middle finger is now almost well. He does not feel any numbness in the fingers, and there is no anæsthesia of the skin discoverable by the compasses. The inflamed finger is very tender to the touch. He states that sometimes there is a feeling of muscular weakness in the hand and forearm, as if he could not move the fingers. They are so stiff, although very little swollen, that he cannot flex them much. The whole arm is flabby and thin, considerably thinner than its fellow."

At the date of the preceding notes I carefully examined both arms, and had his chest stripped. The pulse at the left wrist was nearly as strong as that at the right, and there was no evidence of occlusion of veins. The ulnar nerve could be easily felt at each elbow, and was not enlarged on the affected side. He complained that it much more easily caused pain and tingling when it was pressed on the affected side, than on the other. This was the only difference. I could not discover any evidence of aneurysm in the neck or chest.

Six months after the pain had ceased, I had an opportunity for again examining the hand. The temperature of the ring-fingers of the two hands was now the same, 93°. He had been walking and the morning was close. The affected fingers were much thinner than those of the other hand. The nails, owing to the shrinking of the fingers, were much more curved than those of the other hand, but there was no clubbing of the finger ends. The treatment throughout had been by specifics.

Mr. C. lived some years after these notes were taken; and, finally died of acute abdominal mischief. He had experienced no further trouble from his syphilis, nor any return of the pain in his fingers.

It will be seen that although the finger tips never actually went into gangrene, they were very near it. The disease was of a slowly aggressive character, and affected one finger for months before the others were involved. The attack lasted altogether nearly six months. It differs much from the cases described by Raynaud, under the name of peripheral asphyxia, inasmuch as it did not involve all the digits and was marked by extreme pain. Since its occurrence I have seen several cases favouring the belief that arteritis may begin in the small peripheral vessels, and may travel to larger trunks. If in this instance it began in the vessels of the middle finger, and spread upwards and involved the superficial palmar arch, the phenomena might be fairly well accounted for. The interesting case brought by Mr. Pearce Gould before the Clinical Society a few weeks ago, was possibly a parallel to it, excepting that it was much more severe. In it progressive occlusion of the brachial (travelling upwards) was proved, and most of the finger tips at length sloughed. Whether in my case syphilis was the cause, may be open to some doubt, since the patient had been for some months under efficient specific treatment, and was just well of all other symptoms.

CASES OF SPINAL DISEASE, ILLUSTRATING THE CLINICAL HISTORY OF SPINAL SCLEROSIS.

By JAS. RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

(*Continued from page* 280.)

A Case of Infantile Paralysis in the Adult; and a Case of Amyotrophic Lateral Sclerosis (Charcot).

I have brought the two following cases together, because they exhibit between themselves a contrast possessing much pathological interest, and which, sufficiently striking of itself, derives additional importance from an opinion of M. Charcot; an opinion which regards the cases, to which my second case belongs, as constituting of themselves a distinct group of the remarkable class of spasmodic spinal pareses, a group to which he has applied the title quoted at the head of this paper.

As to my first case, it is a very typical instance of a disease, well recognised of late, in which what used to be known as infantile paralysis presents itself in the adult individual.

Referring now to the comparison between the two cases, in each case paresis with atrophy of muscles is the leading symptom throughout, and gives to the case its characteristic aspect; there is loss of muscular power and atrophy, even destructive atrophy, of muscular tissue. In the case of so-called infantile paralysis, whether in the child or in the adult, this condition of paresis and atrophy comprises the essence of the malady.

In amyotrophic lateral sclerosis, on the other hand, the muscular atrophy is but a part—a very important part—of the case; a spasmodic element is superadded; and thus the disease holds out a hand, on the one side, to the spasmodic paresis which has been the subject of the foregoing illustrations, whilst retaining marked individuality through the muscular atrophy which is still its most prominent symptom. In my patient, the atrophy will be seen to be very marked, even more than in the case of infantile paralysis, though by the superaddition of other elements, standing broadly aside.

This group of spinal amyotrophies was described at length by M. Charcot, in his well-known "Leçons"—2me partie, douzième leçon et seq.—and a further explanation of the author's views is given in an appendix to the New Sydenham Society's volume, already referred to; in which, moreover, a controversy is conducted with the opposing view of M. Leyden.

There are other features, besides the spasmodic element, which are regarded by Charcot as adding to the individuality of the group of amyotrophic lateral sclerosis. My case illustrates these features. In the present instance the spasmodic element is less pronounced than in the typical cases; it is, however, declared in the clonos of the lower extremities, and also in the tendon phenomena, which are regarded by M. Charcot as themselves an exposition of the spasmodic element. An important feature in the typical disease picture, is the early extension of the atrophic process to the motor cells of the medulla oblongata, whereby the symptoms of bulbar paralysis are added to the other phenomena of the case, modified, however, by intermixture with a spasmodic development; in my patient these symptoms were in an early stage, having apparently been delayed (according to the course usually described), the spasmodic part being simply illustrated by morbid irritability of the palatine muscles. Another special characteristic is the decided predominance, in point of time, of the paresis over the wasting; this predominance is illustrated in the subject of the present case, by a marked peculiarity appertaining to these cases; the lower extremities are in a condition of advanced paresis, whilst the nutrition of the muscles is maintained, and even a considerable amount of Faradic contractility. This difference between the upper and the lower extremities is regarded as very important; it is certainly very striking; and it continues till the closing period of the case.

In the chronic form of muscular atrophy, the ordinary "progressive muscular atrophy," the wasting process proceeds by individual muscles, occupying, it may be, even twenty years in its complete course; in the acute form the whole system of motor cells is sometimes overwhelmed at once. In the amyotrophic lateral sclerosis the disease proceeds by groups of muscles, answering, no doubt, to the separate collections of motor cells, functionally banded together; the degree of rapidity with which the atrophic process is conducted, approaches much more nearly to the acute form, that of infantile paralysis, than to the long-delayed progressive muscular atrophy. Moreover, so far as yet appears, the tendency is steadily to death. The atrophy advances

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with no slow steps, but it is the bulbar affection which usually determines the fatal termination.

The exact limits of my patient's illness are not clearly defined; but the advance of the symptoms under our observation renders it probable that the duration may not exceed the short term of three years, usually observed in these patients.

With reference to my first case, I may say that the earliest public description of infantile paralysis occurring in the adult is given in Duchenne's work ("De l'Electrisation localisée"), 2me partie, in article i., chapter iii., "Paralysie spinale anterieure aigue de l'Adulte;" though it appears, from a series of articles in *Le Progrès Médical*, 1874, that M. Kussmaul had noticed the distinguishing character of the disease in 1865. A lecture on the subject was given by M. Charcot in 1870, and later observations, 1874, are contained in his "Leçons." Since that time M. Charcot's prophecy that the malady would be found of more common occurrence than had been supposed, has been verified.

My case presents an excellent illustration. The whole four limbs were implicated, and, contrary to what often happens, all the muscles affected have probably recovered. The disease commenced suddenly, as is usual. In *Le Progrès Médical* are some interesting examples of the sudden manner in which the paralysis sometimes makes its appearance: in one patient, aged 60, in half-an-hour from invasion all movement was impracticable; another patient, who had gone down into the open court from his bed, thinly clad, with naked feet in his slippers, whilst in a state of perspiration, found he could not handle the soap on regaining his room, and next day was unable to pay for a cab, because he could not handle his money.

With respect to the period which may elapse before motor power is regained, in one of the cases just referred to, the patient began to recover power, after two years passed in absolute immobility; but recovery was very incomplete. In my patient recovery began early, and when he passed from our observation, promised to be complete.

Case I.—Infantile Paralysis in the Adult.

Mrs. A., aged 28. She made the following curious statement:—When fourteen years old she was exposed to white lead poisoning, at some porcelain works; at the end of two months she became seriously ill and lost flesh: the doctor told her she was suffering from lead poisoning. She left the place at once and never had any other symptoms of plumbism. There is still a thin blue line along the edge of the gums. She reports protracted diarrhœa for a year before her present attack, which began eight weeks ago with a "fit," which left her unconscious for an hour. At the end of a week her hands, and in two days her legs lost power, and were numbed; in each case the paralysis was complete in three days. A sharp pain shot up the legs from the toes and the middle of the feet, and this pain existed at her admission. There was no important trouble with bladder or rectum; nor with the special senses. Menstruation had been suspended for ten months; it reappeared during her recovery. Her health was unaffected; she was a large, stout, flabby woman. There is absolutely nothing else to notice in her history; nor anything to indicate a cause, unless it be the remote poisoning with lead. On admission we found the muscles of the four extremities paralysed, and hanging loose and flabby; the muscles swaying to any impulse; this was the case, however, in the legs to a less extent than in the arms, and the paralysis was less complete. The deltoids were partially wasted; the shoulders were raised by the trapezii only. The only knee phenomenon was an occasional slow contraction of the muscles of the thighs when the patellar tendon was placed on the stretch. The plantar reflexes were active, and became abnormally so. The points of the compasses were distinguished in the fingers at three-quarters of an inch. Some Faradic contractility was preserved in the right forearm alone; slight contraction on cathodal closure, 40 cells, took place in the flexors of the right hand. Any sign of the reaction of degeneration was everywhere entirely absent.

Uterus and rectum were healthy (Dr. Malins). A myopic crescent was the only abnormal appearance in the fundus oculi (Mr. Priestley Smith).

She remained in the hospital from April 14th, 1883, till January 5th, 1884, when all her muscles appeared to have regained their function. The treatment depended chiefly on the assiduous use of the hot mustard bath, to all four limbs, and manipulation of the muscles. Galvanism, at first Faradism (for the sake of convenience), afterwards by the battery current, was assiduously employed. Probably the recovery of the larger muscles would have taken place unaided; but there could be no question of the efficacy of the current in saving the small muscles, which, at one time, were seriously threatened, and which relapsed at each intermission of the battery. Liquor strychniæ was administered, but never in above three minim doses. One blister was applied to the vertebral region.

During the process of recovery, which occupied nine months, the lower extremities took the lead; the muscles of the shoulder and those of the elbow and wrist, preceded those of the hand and thumb; the thenar muscles were at one time seriously threatened. The last muscle to recover was the long extensor of the right thumb.

I watched with some interest the process of recovery. It may be briefly stated as follows. Treatment began April 14th:—

Lower Extremities.—By May 31st, their movements were free, tone had been partially regained, and some knee-jerk had appeared. The patient began to walk without support, June 28th; but Faradic contractility was absent from the muscles, and from the anterior crural nerve.

Shoulders and Back.—May 3rd. Slight power existed in the right shoulder only; on the 16th the deltoids and great pectorals were beginning to act, and Faradic contractility showed itself ten days later in these muscles; the latissimus and teres remained powerless. Not till July 18th was there much improvement in the nutrition of the shoulder muscles, and at that time Faradic contractility existed in the pectorals alone. Thence recovery was rapid.

Upper Extremities.—May 16th. Some Faradic contractility was present in the upper extremities. At this time there was general tendency to return of contractility, but with remarkable differences in different regions, varying between 13° of Stöhrer and zero; the zero referred to the calves, which nevertheless were rapidly recovering; illustrating the fact that there is no necessary relation between the return of sensitiveness to voluntary and to electrical stimulations.

June 5th.—There was power of grasp in the right hand; the muscles of both forearms remained perfectly flabby. By the end of the month active Faradic contractility was found in the flexors in each forearm, but not in the extensors, nor in the triceps. Good response followed Faradising the nerves.

The muscles of each thenar eminence alone caused anxiety, especially on the left side; the right thumb was brought in contact with the tips of the fingers with difficulty, the left thumb not at all. Only the second interosseus responded to Faradism of all the muscles of the hand and forearms; and ten days later, notwithstanding the assiduous use of the battery current, neither thumb touched the tips of all the fingers. It was not till early in December that the

extensors on the forearm had recovered. On January 5th, it is reported that the right long extensor of the thumb was restored, and that the patient had dressed herself for the first time.

It will be evident from the foregoing details that although the paralysing influence was general throughout the motor cells in both the cervical and lumbar enlargements of the cord, it had nowhere reached the destructive degree unfortunately not infrequent in certain groups of cells in this disease. Faradic contractility was extinguished for only a limited period; and where it was lost for a time, the battery current was simply powerless, like the Faradic, and in no set of muscles gave any indication of the fatal reaction of degeneration. Nor, again, did the disease remain in any one group of cells, as so frequently happens, to mar the completeness of recovery. I was greatly afraid for a time that the worst consequence—permanent disablement of the delicate operations of the right hand, or at least of the right thumb—might cause us disappointment. Happily this result was averted.

Case II.—Amyotrophic lateral Sclerosis.

T. S., aged 44, watchmaker, admitted July 14th, 1883. All evidence of syphilis and of plumbism is absent. He is of temperate habits, but has been in the practice, for the last twelve years, of smoking half an ounce of strong tobacco per day, and one ounce on Sunday. Mr. Priestley Smith reported his disc to be healthy; but there was a slight central scotoma for colours such as characterises tobacco amaurosis. Perhaps it is worth notice in this connection that Duchenne (Observ. LXX. Anterior Spinal Paralysis of Adult) mentions a patient who had been in the habit of smoking, for twenty years, tobacco containing a large quantity of nicotine, and of drinking a glass of absinthe daily.

The report he gives of the access of his symptoms is very indefinite; he speaks of weakness in his legs of twelve years' duration; but it is evident that the last three years, and especially the last six months, have witnessed marked increase in the muscular feebleness; during the same time, too, the arms have been losing power. His legs felt too heavy; they "gave" under him, and trembled in walking; he has had several tumbles in consequence; his feet have tended to drag, and his knees were wont to shake so much in sitting down, that he was compelled to grasp them; he has felt jumping in his left leg, and has had cramps and stiffness.

I never found any evidence of "contracture;" the spasmodic element was confined to the foregoing description, and to the clonos and tremors to be mentioned. Then his fingers felt numbed, and his tools became loose in his grasp; his hands shook as if from cold. He speaks of troublesome pain shooting from the feet up the legs.

He has found failure in speech for six months—he has broken down in long sentences; and I may at once say that the bulbar symptoms were limited to a decidedly feeble and nasal character of voice, rendering him sometimes unintelligible; and to tendency to regurgitation of food. The sole muscular change, nutritive or functional, consisted in very considerable irritability of the palate muscles. The nutrition and movements of the tongue were perfect.

The patient has lost flesh considerably.

When admitted he was able to walk a mile: the muscular nutrition of the lower extremities was perfect, the muscles contracted firmly, and acted also to Faradism.

The muscles of both forearms were greatly enfeebled, especially of the right; all the delicate movements of the right hand were gone; his power of fixing his arms against his side was much lessened. The right arm had lost half-an-inch in girth; the right palm was hollowed, the thenar and hypothenar eminences were melting away. Very marked fibrillation prevailed in the muscles of the upper extremities and shoulders, and in the pectorals.

As regards the reflexes, the knee-jerk was preternaturally active; tapping the tendo Achillis caused extension of the foot; decided contraction was produced by a stroke upon the flexor tendons of the wrist, and the tendon of the biceps: when tapping the triceps tendon, the contraction extended to the supra and infra spinati muscles.

Clonos was present irregularly; it was sometimes produced with such violence, by resting the toes on the ground, as entirely to prevent locomotion; sometimes it could not be produced, apparently through the restraining action of irritable muscles. The right plantar reflex was more energetic than the left; abdominal reflex was present on the right side alone.

Faradic contractility, though never long absent from the muscles, showed very marked variability.

I need not specify the details of the progress made by the disease; since the patient came under observation, the downward course has been rapid. In two months the right thenar eminence was nearly lost, and the first metacarpal bone lay on a level with the second; the muscles of the forearm had disclosed the interosseal space; the opposite upper extremity was falling into the like condition. Speech was more feeble, but no further development of bulbar symptoms had taken place.

By the end of the sixth month from admission, the right forearm and hand were nearly powerless, atrophy of the muscles of the hand was nearly complete, and of the arm was greatly advanced. Those of the left upper extremity were rapidly wasting. The trunk muscles were in a state of advanced paresis but gave no evidence of having wasted; the patient was utterly unable to raise himself in bed, and turned himself, when lying, only with much difficulty. There was much cramp of the abdominal muscles.

Although it was only by great effort that he could lift his lower extremities to the bed, they retained their nutrition and their contractility. His attitude in walking was very characteristic: the shoulders bent, the head bowed, the arms hanging loosely by the side, and his legs scarcely bent, but swung forward by the movement of the trunk; there was, however, a good deal of variability in the degree of decrepitude; and sometimes clonos on placing his feet on the ground increased his difficulty. The reflexes presented no important change.

HEPATIC ABSCESS OPENING INTO PERITONÆAL CAVITY—SECONDARY ABSCESSES IN BRAIN.

By S. A. K. STRAHAN, M.D.,
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Hepatic abscess is sufficiently rare in those who have never lived out of this country to render its occurrence worthy of record. In the following case the absence of any apparent cause, the increased difficulty in arriving at a definite diagnosis in consequence of the patient's mental state, and the presence of secondary or pyæmic abscesses in the brain, give it an additional interest.

Briefly, the case is as follows:—W. S., a single man, aged 31, an iron moulder, who had never been out of England, was admitted into this asylum in August, 1881, suffering from a second attack of insanity. The

form of alienation from which he suffered was mania, with delusions of a religious nature. He was, on admission, described as "a strongly built, well-nourished man, in good bodily health, save for a slight systolic murmur." For two years after admission he enjoyed—if the insane can be said to enjoy anything—excellent health, and gained about 28 pounds in weight. Mentally he did not improve; his delusions remained fixed; he often threatened to kill the medical officers and others, and was looked upon as dangerous.

On August 8th, 1883—two years after his admission—he first complained of feeling ill and of "pain in the stomach." The temperature ran up to 100°, and the appetite failed (he had been a voracious eater before), but he soon came round, and on September 12th it was recorded, "All pain gone; seems recovered from recent attack; eats and sleeps well." He had lost considerably in flesh during this month's illness. The pain was never severe; he referred it at different times to "his bowels," "side," and "chest," and no definite diagnosis of his case was arrived at.

On September 17th, the pain returned, and the temperature again went up above 100°. He now began to have very profuse night sweats, to be troubled by a short cough, and occasionally to spit, after coughing, little specks of blood. The chest was examined as carefully as his condition permitted without anything definite being made out. On September 20th, the skin and conjunctivæ were jaundiced, and he vomited twice; this called attention to the liver, but examination revealed nothing. From this time the temperature varied irregularly between the normal and 104°; the icteric staining appeared and disappeared, and the stools and urine also frequently changed in colour, the former being often much paler than normal, and the latter at times being high-coloured, and showing, on examination, the presence of bile pigments.

During October the temperature, jaundice, and pain varied as before, but the sweats and emaciation continued. It was noted at this time that the patient's face—generally jaundiced, but never deeply—often changed colour in a remarkable manner. In less than 30 seconds the yellow would fade, giving place to a sickly earthy hue, with bright red patches on the malar prominences. This most effectually changed the aspect of the man, and excited the wonder of the attendants. I may say the conjunctivæ retained their slightly yellow tinge. From the end of October the pain was almost constant, as was also the sweating, the icterus coming and going almost daily. He became irritable and desponding, and would permit no examination. On November 26th, he was held, and an attempt made to define the area of hepatic dulness. This was found to extend from the level of the nipple (he was lying on his back) to within an inch of the crest of the ilium; it reached the middle line at, and for two inches above, the ensiform cartilage, and below, tailed off from that point, in a line running to the centre of the iliac crest.

He now rapidly became more emaciated and weaker; the appetite entirely failed, the pulse—all along frequent—became more frequent and smaller, and he became incoherent six days before death. On December 12th, he had persistent hiccough; on the 13th, he had several epileptiform convulsions; and on the 14th he died, having been unconscious for the last three days. He lay all through his illness on his back, and the legs were fully extended to the last.

An examination of the body was made 27 hours after death, when notes were made, from which I extract the following:—

Cadaver, that of a strongly built man, much emaciated, skin slightly jaundiced, a blood tumour on each heel, and some purpuric spots on toes, fingers, and forearms.

Head.—Arachnoid thickened and opaque in patches over the hemispheres. On removal of the arachnoid, many masses of greenish-yellow pus were found upon the convolutions; these proved to be abscesses of about the size of and in colour very like green peas. On section of the organ, scores of abscesses of similar size and appearance were found in every part, some showing through the superficial grey matter, others in the great white centres, and others again opening—or rather showing, for no pus had escaped—on the ventricular surfaces. The cerebellum was studded in a like manner.

Chest.—Nothing to notice except some hard nodules, apparently inactive tubercles.

Abdomen.—The liver had pushed the diaphragm up to the level of the nipple on the right side. On pressure, pus welled out from beneath the anterior edge of the liver; the intestines were matted together, and were adherent in places to the abdominal wall from peritonitis. In the thick and posterior part of the right lobe of the liver was found a large abscess, which had contained about a pint or more of pus. It had opened into the peritonæal cavity through the under surface of the organ. The liver was considerably enlarged, and lay over the right kidney, which had to be removed along with it on account of the adhesions. On cutting into the liver, many small (secondary) abscesses were found, from the size of a pea to that of a nut. The kidneys appeared healthy to the naked eye; the spleen was black and soft to rottenness.

The following points in this case are worth notice:—This patient had no hæmorrhoids, fistula in ano, dysentery, or other intestinal inflammation, for at least two years previous to the appearance of the hepatic trouble. There was no history of any contusion or other injury, nor were there any hydatids present. What, then, was the exciting cause of this abscess?

Again, the poison carried from the seat of suppuration in the liver by the blood-current first passed through the lungs, to be deposited in the brain. Why were not these centres of infection arrested in the lungs, as is generally the case, there to form the starting points of pulmonary abscesses?

To the ordinary practitioner, another point in this case will appear strange, viz., that the patient, though suffering from severe general peritonitis, lay with the legs extended until the last. This, however, will not astonish those having the care of the insane. I have, within a short experience, seen at least one case where I did not even suspect peritonitis; where the patient, until the last day of life, rolled about, and frequently got out of bed, and where, on *post-mortem* examination, the intestines were found one mass of adhesions from recent inflammation. And I have recorded another case, where the patient, though not oblivious to pain, went through peritonitis after herniotomy, without any increase in the temperature or quickening of the heart's action.

Slow Increase of Population in France.—From a return published in the *Journal Officiel* it appears that there were 280,460 marriages in 1882, in place of 282,079 in 1881, and 935,566 births in 1882, in place of 937,057 in 1881; and 838,539 deaths in 1882, in place of 828,818 in 1880. It is a fact, therefore, that the unfavourable condition of the country, as regards increase of population, continues, or rather is aggravated. As far as such increase is dependent upon the augmentation of births as compared to deaths, the rate of increase is only 0·26 per cent. per annum—the population only doubling itself in 267 years. The doubling, however, takes place much more rapidly than this, viz., in 165 years, owing to the great and increasing number of foreign immigrants.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GENERAL HOSPITAL FOR SICK CHILDREN, MANCHESTER.

CONGENITAL HEART-DISEASE—ATRESIA OF THE PULMONARY ARTERY—STENOSIS OF THE TRICUSPID ORIFICE — PATENT FORAMEN OVALE AND DUCTUS ARTERIOSUS.

By HENRY ASHBY, M.D., M.R.C.P.,
Physician to the Hospital.

FLORENCE S., aged two and a half weeks, was admitted to the Children's dispensary July 5th, 1883. She was a first child, and at birth it was noted that she was "blue as a winberry." The mother was subject to "fits," and had had fits shortly before the child was born. She had never miscarried. The infant when first seen was cyanosed, the tongue, lips, mucous membrane of the vagina being of a lurid purple colour; the heart sounds were normal, there was some loss of resonance at the bases of the lungs posteriorly, but the air seemed to enter everywhere.

October 15th.—Child still blue, but less so than when last seen; nutrition good, has grown fairly well, no cardiac bruit detected.

October 25th.—Was put to bed apparently well; next morning it was noticed to be very blue, there was some bleeding from the nose and mouth, and the child (now four months old) died in a few hours, having been previously convulsed.

At the *post mortem* the only organs examined were the heart and lungs. The lungs were crepitant throughout, and on section displayed various masses, from the size of a pea to a marble, of pulmonary apoplexy. On viewing the anterior aspect of the heart, it was noted that at least three-fourths of the ventricular surface was occupied by the left, the right ventricle occupying the remaining fourth and feeling quite solid. *Right auricle.*—On opening the cavities, the right auricle was found to be much dilated, its walls thickened, the coronary sinus dilated, the foramen ovale open, the tricuspid orifice contracted so as only to admit a goose quill. On cutting into the *right ventricle*, the walls were found to be thick, out of all proportion to the size of the cavity, the former being over half an inch in thickness, while the latter was only large enough to contain a small marble, the two surfaces being in contact. The tricuspid valves were diminutive, their edges partly adherent, so that the orifice would only admit a probe the size of a crow quill. The pulmonary artery was small, the semi-lunar valves distinct, but adherent to one another, so that the pulmonary orifice was completely obliterated. There was no communication between the ventricles through the septum. The ductus arteriosus was patent, and about the size of a crow quill. *Left auricle.*—Cavity of moderate size, wall thin, mitral orifice readily admitting the forefinger. *Left ventricle.*—Cavity capacious, large enough to contain a walnut, wall one quarter of an inch thick, mitral and aortic valves healthy.

Remarks.—The direction taken by the blood through the heart must have been in the following way:—The blood delivered into the right auricle by the superior and inferior venæ cavæ and coronary sinus, must have over-distended the auricle, gradually passing through a somewhat small foramen ovale into the left auricle to mix with the blood, brought there by the pulmonary veins. The atresia of the pulmonary artery and stenosis of the tricuspid preventing any exit in that direction. The whole of the blood entering the heart would pass through the mitral orifice into the left ventricle, thence through the aorta, a portion entering the innominate, left carotid, and sub-clavian; a second portion passing through the ductus arteriosus into the pulmonary artery, and through the lungs; the third portion being delivered to the lower part of the body by means of the descending aorta. With this arrangement, it is evident that marked cyanosis must exist.

In this case it is clear that an endocarditis affecting the pulmonary and tricuspid valves occurred at an early period of fœtal life, resulting in the complete closure of the former orifice and the partial closure of the latter, traces of the process being left in the thickened and opaque endocardium near the orifices referred to. The right ventricle no longer giving passage to the blood became contracted, and the interventricular septum closed; after birth the foramen ovale remained patent, as it was the only outlet the right auricle possessed, and the ductus arteriosus also remained open, as it was utilised for the passage of blood from the aorta to the lungs.

Medical Times and Gazette.

SATURDAY, MARCH 15, 1884.

AMONG the many and various subjects that are brought before Parliament at question time, that of the evils caused by over-work in Board schools continues to hold a prominent place. On Friday last the Vice-President of the Council was asked, in effect, what he thought of the memorial signed by more than fifty of the medical men of Bradford and addressed to the School Board, praying that they would direct that home lessons should not be enforced upon children under ten years of age; and whether he proposed to take any steps to limit pressure in that direction upon children of tender age. Mr. Mundella said, in reply, that he had considered the memorial referred to, and found that some of the statements made by those who presented it, as to the prevalence of brain disease among children, were not confirmed by the Registrar-General's returns. The Educational Department had taken special precautions to prevent children from being over-worked in their schools by directing that exceptionally dull children, or weakly or delicate children, or those who had suffered from prolonged illness, should be withheld from examination; by ordering managers of schools to see that such children be not unduly pressed during the year prior to examination; and by enabling children who have failed in two subjects, or twice in one subject, to be re-examined in the same standard. The Department would direct her Majesty's inspectors to see that these rules are carried into effect; but he added, seeing that there are nearly 5,000,000 children on the rolls of public elementary schools in Great Britain, "no regulations that the Department can lay down will be effectual unless parents, teachers, and managers will co-operate with us to protect the children."

The same subject was brought forward on Tuesday last in the House of Lords by Lord De La Warr, who, in a long speech, dwelt on the frequency of educational over-pressure, and referred especially to the Bradford memorial, and to the case of the child whose death from inflammation of the brain is said to have been hastened by over-work in a school at Cheltenham. With regard to this case, it appears that the child did not belong to a School-Board school; and Lord Carlingford was able to state that the school she did go to was an exceptionally good one, presided over by an exceptionally experienced mistress. The evidence given at the inquest held on the child showed she suffered from tubercular meningitis and from disease of the lungs, and the jury returned a verdict to that effect, adding as a rider that no blame attached to the teachers or the school authorities. Respecting the Bradford document, Lord Carlingford's statement was very much the same as that made by Mr. Mundella; and he further adduced some statistics to show that people need not fear that the Education Department had any wish to stimulate children to work at special subjects at the sacrifice of essential education. Special subjects cannot be taken in any school which has not passed 70 per cent. of the children attending it through the ordinary standard of education. That regulation, of course, reduces the number of children who can take up special subjects; and in a report recently made by one of the inspectors he stated that out of 17,000 who had been examined in Manchester there were only four per cent. who had taken up special subjects. The New Code certainly does not seem to err in the direction of pressing the study of such subjects; for, to take only one of these subjects—animal physiology, in the four months before the New Code came into operation in England and Wales, 22,000 children took up that subject; but during the four months that had elapsed since the New Code came into operation, it had been taken up by only 4,800 children.

On Wednesday Mr. Reid, having obtained the leave of the House, brought in a Bill to prohibit vivisection, and it was read a first time.

At the Ordinary Meeting of the Royal Medical and Chirurgical Society on Tuesday last, Dr. George Johnson, F.R.S., the newly elected President, in taking his seat for the first time, thanked the Fellows for the honour done him, and expressed the pleasure which his election had afforded him. His term of office was inaugurated by two papers, both on somewhat unusual subjects, but of great and varied interest. The first one was a further communication on Artificial Respiration in Stillborn Children. Dr. Champneys pointed out some of the mechanical difficulties which prevent the successful accomplishment of artificial respiration as generally practised. An interesting discussion ensued, from which we may anticipate practical advantages. The second paper was by Mr. J. B. Sutton, who advocates the systematic examination of the bodies of all stillborn children. He believes that many useful lessons will be learnt, not alone concerning malformations and deviations from the standards which are considered normal, but also concerning intra-uterine disease and its effects on development and growth generally. Mr. Sutton showed many interesting specimens, which he had found in the bodies of fœtuses, in support of his contention.

The Medical Society of London, the oldest Medical Society in this country, if not in the world, celebrated the completion of its 111th year of existence, by its anniversary dinner on Saturday evening. The dinner, which took place in the Venetian Hall of the Holborn Restaurant, was presided over by the out-going president, Sir Joseph Fayrer, and was distinguished by the presence of the presidents of several other learned societies, including Professor Huxley, representing the Royal Society, Mr. Hulke, who has just vacated the chair of the Geological Society, and Dr. George Johnson, who has just stepped into that of the Royal Medical and Chirurgical Society. There were many speeches, the most noteworthy being of course, that of Professor Huxley. The "uncrowned king of science," as Sir Joseph Fayrer aptly called him, lauded medicine for what it has done in the past for science, and vituperated the Government for what it is going to do for medicine. Thirty years ago, said Professor Huxley, a medical education was the only entrance to the study of chemistry and biology. The Medical Bill, he said later on, was pedantic in its conception, and would be disastrous in its results, a prophecy which was not loudly applauded by his hearers. Sir Joseph Fayrer made many graceful speechlets, and gave the Fellows the very sound, but rather uncourtierlike advice, not to rely for their success on such incidents as Prince's visits, but on their own exertions; to which we may add the advice not to depend too much on their Presidents. The Society cannot expect to have a succession of Sir Joseph Fayrers in its chair.

Nature gives a list of officials at the meeting of the British Association, which will be opened at Montreal, on August 27th, under the presidency of Lord Rayleigh. The list of vice-presidents includes the names of Sir Lyon Playfair, Professor Frankland, the Hon. Dr. Chauveau, and Dr. W. H. Hingston. The biological section, which is the one in which the medical profession takes most interest, will be presided over by Professor Moseley, while Dr. W. B. Carpenter holds office as one of the vice-presidents, and Dr. W. Osler, a Montreal physician well known both in London and Edinburgh, is one of the secretaries. Beyond these names, there are but few members of the medical profession on the list. Now that science is so specialised, a doctor who can shine in other branches as well as his own is a phenomenal being.

In a lecture at the Westminster Hospital, a few days ago, on Asiatic cholera, Mr. Macnamara took the opportunity to make some observations on the recent outbreak of cholera in Egypt. As regards the cause of it, he lays stress upon the interference with the working of the sanitary service in Egypt during the previous autumn by the war, and also to the influx of

native Indian troops on that occasion. That the cholera did not spread to Europe last year is, in his opinion, to be attributed to the rigid quarantine measures adopted by most of the countries, rather than to the sanitary precautions taken by our own Government. He considers that at all times it is a difficult matter to trace the origin of an outbreak of cholera; and that it was especially difficult in this instance, but Sir W. G. Hunter went to Egypt with preconceived opinions, and it was not surprising, therefore, that he failed to trace the mode of importation. In conclusion, Mr. Macnamara expressed himself a strong believer in the communicability of cholera, both from his own personal experience of the disease, and from a careful study of its history. He holds that no amount of insanitary conditions, or any other circumstance, can produce an attack of Asiatic cholera, except the infecting matter passed by a patient suffering from the disease is swallowed, and that the infecting matter must pass into water or food containing certain unknown elements to render it an active poison when swallowed.

The Edinburgh University students held a crowded and enthusiastic meeting, on Saturday last, to discuss a proposal to establish a students' union. The estimated cost of the building is no less than 12,000*l.*, but this did not seem to dismay any of the speakers, for no one even hinted at the possibility of there being any difficulty in raising this sum. We hope that the result will prove that their calculations as to the length of their own and their friends purses have been well founded. But in undertakings of this sort we fancy that a gradual commencement is the more prudent course, and if we are not mistaken, the Cambridge University Union commenced its career in a very small way as compared with the building it now occupies.

On an afternoon last week, Mr. John Furley, of the Ambulance Association of St. John of Jerusalem, gave a short practical demonstration to the porters of St. Mary's Hospital, on the best method of lifting and carrying sick and injured patients. It is well that the hospital porter should now and then be shown that there are improved methods of moving patients, for one may say of him with Horatio, "Custom hath made it in him a property of easiness." The servants and staff of the hospital were greatly interested in the demonstration, and worked with a will under Mr. Furley's instructions. Probably other hospitals would be glad to receive such a visit from one so well skilled in ambulance work.

In all the large centres of population, in the United Kingdom, except Birkenhead, Glasgow, and Paisley, the death-rate went up with a jump last week. The rate of the 28 English towns, which was 20·3 in the previous week, mounted last week to 22·5, and that of London from 19·3 to 21·3, or higher in both cases than it has been since the first week of the year. The zymotic death-rate, both in the metropolis and the provincial towns, stood higher than it has done for weeks. In London, the deaths from zymotic diseases numbered 215, against 179 in the previous week, and were only seven below the decennial average. This increase is mostly accounted for by the greater fatality of whooping-cough and measles. There was also an increase of 50 in the number of deaths from respiratory disease, though they were still 107 below the average. Small-pox seems slightly on the increase in London, though only one death was recorded last week.

The Medical and Dental Registers for the present year have just been published. They have both been subjected to a very careful revision, and contain in the introductory matter all the Medical and Dental Acts, and full and exhaustive data as to the statistics connected with the present and previous issues of the Registers. From the Medical Register it appears that 1,304 new names were registered in 1883, as compared with 1,171 in 1882, 1,053 in 1881, and 1,123 in 1880. The names removed from the Register in the course of last year numbered 710, a smaller return than in any year since 1876; so that it is to be hoped that the present Registrar's persevering efforts to keep his records correct are bearing fruit. The new Dentists' Register contains 5,296 names, of whom 801 possess licences in dental surgery, 22 surgical qualifications without dental licences, and five foreign dental diplomas. The last-named class has apparently not increased since the Dentists' Register was first instituted.

The curiosity as to the details of criminal executions, which has of late been unwisely fostered by the publication of the proceedings and alleged irregularities of the common hangman, will probably be followed in due course by a protest from some well-meaning, but ill-informed, association of philanthropic ladies and gentlemen, condemning the use of "long drop" or "short drop," as the case may be, with a zeal worthy of all other phases of anti-agitation, and resting on the usual basis of incorrect statement of facts and unreasonable deductions from them. Already we have heard the indignant voice of the British householder condemning the want of skill which, while completely severing the bony continuity of the spinal column, has failed to stop the action of the heart for several minutes! The suffering which such a state of things must entail, whilst too terrible for words, would naturally thrill the heart of the unphysiological reader with "holy anger and pious grief" indeed. To ask such a one to separate in his own mind the notion of sensitive life from that of the pulsation of the heart would, perhaps, be too much. Certain phenomena, however, which have lately been observed at a triple criminal execution at Prague may, perhaps, be with advantage brought before him. The three criminals were hanged together, and no doubt could exist as to their almost instantaneous death. In all three cases the hearts continued to pulsate for nearly a quarter of an hour afterwards. Looking back to the history of the subject, many cases may be found recorded where the heart's action has continued for a long time after complete decapitation. It is certainly to be desired that further scientific observations should be made upon this point, if only as a means of checking the sensational effusions of professional horror-mongers.

In our last week's notes on the Magazines, we ought to have mentioned that the *Leisure Hour* for this month has two subjects of more or less medical interest, the one a very sensible article on "Hospital Nurses," by Miss E. Harkness; the other a string of anecdotes of "Doctors out of Practice," by Mr. Cordy Jeaffreson. Miss Harkness writes with a good sense and good taste, that unfortunately have not always distinguished writings on hospital nurses from the nurse's stand-point; she admits that there were many lessons which the lady nurse could have learnt from the style of nurses previously employed—lessons of obedience, truthfulness, punctuality, loyalty, and cheerfulness. She thinks that a hospital matron ought to have considerable knowledge of all classes of society, and should, if possible, be good-looking, and a woman who knows how to dress. Another sensible remark is that people should be encouraged to send nurses tickets for places of amusements. Mr. Jeafferson's anecdotes of "Doctors as Politicians" are mostly well known. He relates some amusing instances of the active part which certain highly placed members of the profession took in politics in the eighteenth century. Some at the present day express themselves as anxious to restore that activity, but for our part we must confess that we have little liking for medical politicians. Neither Virchow nor Paul Bert has gained in forsaking science for the Senate.

Diphtheria is alarmingly on the increase in Paris; the number of deaths have shown a steady rise during the last five weeks, the figures being 43, 60, 52, 70, and last week 75. The average deaths from diphtheria in Paris at this time of the year always amount to from 40 to 45 weekly, but it is long since such a figure as 75 has been reached. The districts in which it is most prevalent, are those of La Roquette, Sainte Marguerite, and Les Quinze Vingts, all in the close neighbourhood of the Hôpital Trousseau.

M. Floraud supplies to the *Revue Mensuelle des Maladies de l'Enfance* some interesting statistics relating to the cases of diphtheria, admitted to the Hôpital Trousseau, in Paris, during 1883. There were 606 cases of diphtheria admitted, of which 165 were pharyngeal, while 441 affected the larynx, or air-passages. Amongst the 165 cases of pharyngeal diphtheria there were 65 deaths, making a mortality of nearly 40 per cent. The 65 deaths included ten from paralysis, the rest dying from the toxic effects of the disease, or of measles, or scarlet fever. Of the 441 diphtheritic croups, 359 were operated upon with 244 deaths, a mortality of 68 per cent. The 359 cases operated upon included 40 cases of croup complicating measles, and 30 who were under two years of age; and among those who recovered after tracheotomy, there was an infant of thirteen months, three under twenty months, and two which were complicated with measles. The cases which were not operated upon were for the most part those cases in which there was wide-spread diphtheria of both pharynx and larynx, and which were moribund when admitted. These results are said to be the most satisfactory which have been obtained for many years at the Hôpital Trousseau. It is interesting to note that several cases of paralysis occurred after *laryngeal* diphtheria, thus pointing strongly to the identity of pharyngeal diphtheria and "membranous croup."

The *Archives of Pediatrics*, the first two numbers of which have lately reached us, is, we had better explain, an American monthly periodical devoted to the diseases of children. The communications and lectures are so far decidedly good, and augur well for the future success of the journal, in spite of its somewhat uncouth title.

An American contemporary has been giving its views on English Medical Journals. It is kind enough to say that in the purely journalistic and technical part of the work of editing and publishing medical periodicals, England is ahead of any other country, though America is now pressing closely upon it. "A characteristic of English journalistic work is the literary skill displayed; the editorial writing is generally careful and often forcible, while the editors are remarkably apt in turning every-day events into 'material,' and in throwing a medical — not to say 'bony' — light upon them. We are obliged to say, that undoubtedly another not so admirable characteristic of English editorial work, is the union of a certain heaviness of style with triviality of subject, the result being a kind of medical *bathos*—which is the hypnotic quality in leading articles."

The *Lancet*, in our contemporary's opinion, still retains its pre-eminence as the leading exponent of English medical journalism, and it has undoubtedly helped to give dignity and force to medical opinion. "We venture the criticism, however, that it goes too far at times in peddling out gratuitous sanitary instructions to the laity as regards every conceivable social custom or individual habit. The *Lancet* exhibits an extraordinary facility in discovering the medical significance of contemporaneous incidents, and can write profoundly and medically upon all things from the war in Egypt to the *accouchement* of a duchess." The *British Medical Journal* is declared by our contemporary to be truly a wonderful periodical, though its size is a little appalling. It is doing an effective work in consolidating the medical profession and increasing its political influence. The *Medical Press and Circular* "is not inferior to the other weeklies in the editorial ability which it displays." No one can take umbrage at such charitable criticism.

In the March number of the *Practitioner*, Dr. Shelly advocates the use of peroxide of hydrogen as a local antiseptic and astringent. In all forms of ulcer it exerts a beneficial action, especially on syphilitic cases. It is also useful in purulent ophthalmia, otorrhœa, gonorrhœa, leucorrhœa, and in stomatitis and ozæna. Dr. Shelly without wishing to praise it unduly, says that it possesses "powerful antiseptic properties, and moreover is colourless, odourless, cleansing, and stimulating, does not stain or corrode, destroys pus, causes no pain in its application, and is not poisonous."

The annual report of Mr. Thomas Partridge, the Medical Officer of Health for the Rural Sanitary District of Stroud, is before us. There is nothing unusual in the statistics, and nothing exceptional in the epidemic incidence of disease to be found in the summary of the year's work. If the baldness of events were a sign of excellent administration, we would say, Happy the officer for Stroud!! Fortunate the district to have no history! but, reading between the lines, we make the discovery that if to meet and talk, and talk but never act; if to leave all necessary improvements to the uncertain empiricism of private benevolence, to build refuges for the sick out of the personal property of charitable individuals; if in short to ignore every representation made to it by its officer, and to neglect the most important duties laid upon it by the law, constitutes a Sanitary Authority, then Stroud possesses one; but if, as some would maintain, these qualities of somnolence, torpor and inaction rather belong to ancient guilds than to modern institutions, the sooner a change is made in the administration of sanitary matters, at Stroud, the better. That these strong remarks are not uncalled for, may be proved by the following extract: "*Drainage.*—No proper system is carried out anywhere in the district; Stonehouse has talked about it for years, and Painswick is in a similar position. Rodborough, is in an equally bad state. At Minchinhampton, by the generosity of Mr. Ricardo, the old sewage is being improved and extended to the bottom of the town." In another place we read that a certain Miss Davies has built a cottage hospital, which seems to be a useful institution. Comparing little things with great, what utter contempt for the Corporation of the City of London we should feel if, after waiting years and years for a vital sanitary improvement, it availed itself of the purse of a private citizen to do work cast upon it by Acts of Parliament. How would it be if the Asylum's Board advertised for philanthropists to erect, at their own expense, infectious hospitals? The whole country is now so inter-dependent, that we can no longer pass over the inaction of any small or obscure sanitary authority without caustic comment—if disease does not yet speed with the electric fluid, it is carried along the rail; a few insanitary farms may throw a whole city into mourning, and there is no part of the island, however remote, the sanitary condition of which may be ignored. Before leaving the subject of Mr. Partridge's report, we should like to add, that it seems bad policy, and serves no useful purpose, to permit inspectors of nuisances to make annual reports in the form and style of the two before us. If discipline is to be maintained and the health officer to hold a proper position, all communications of the kind should be made to him, and not direct to the Sanitary Authority.

Many complaints having reached the Local Government Board as to the water supply of the litte watering-place, called Burnham, on the shore of the Bristol Channel, Dr. Blaxall was despatched to make an enquiry into the subject. Briefly considered, his report showed that the water supply of this town was entirely derived from wells sunk in a soil exposed to pollution by soakage from surface filth, by decaying organic matter from the overcrowded churchyard, in which the digging of a new grave meant the turning up of human remains, and by casual leakage from the sewers and drains. Out of twenty-three samples of well water, from this locality, examined during recent years, not one obtained unqualified approval, while many were totally condemned, and one was described as only fit for irrigation purposes; speaking of this latter water, the Medical Officer of Health explained that when kept boiling it gave off steam pungent with ammonia. Of the two or three schemes laid before Dr. Blaxall to remedy this grave defect, the one which appeared to commend itself most to his attention was that for entering into arrangements with the Bridgwater authority to extend their mains to Burnham, a distance of some seven or eight miles only, with a gentle fall all the way. The inhabitants of Burnham are not alone concerned in the sanitary condition of their town, since the public who frequent the watering-place in summer-time have a direct interest in it, and should assuredly be protected, as far as practicable, from the risk of contracting preventable disease through drinking water dangerously contaminated.

In the notice of "Men of the Times," which appeared in these pages a few weeks ago, all mention of the brief epitome of Mr. G. R. Jesse's achievements, which adorns that work, was advisedly omitted, as Mr. Jesse has quite sufficient means of publicity without any help from us. But as the *Saturday Review* has thought Mr. Jesse worthy of its pillory, we will not further deprive our readers of the entertainment which they will doubtless derive from perusing the picture of Mr. Jesse as he appears to himself. "In February, 1877," we read, "he founded 'The Society for the Abolition of Vivisection,' and he was greatly instrumental in obtaining the appointment of a Royal Commission to enquire into the practice of subjecting live animals to experiments for scientific purposes, and gave evidence before it for three days." In consequence of the controversies between Mr. Jesse and Dr. Ferrier, Dr. J. Crichton Browne, Dr. T. Lauder Brunton, Mr. T. Spencer Wells, Professor Owen, Mr. Darwin, and other distinguished scientific men and members of the medical profession, Government now reverses the decisions of the Presidents of the Colleges of Physicians and Surgeons, and refuses point blank to grant licences to some physiologists of wide-spread repute. The licences were applied for for carrying on investigations which those gentlemen declared to be of the highest value to medical science. The editor of the leading medical journal of England, the *Lancet*, stated in a leading article on November 19th, 1881, that "the part of physiological research which depends on vivisection is being gradually stamped out." On March 9th, 1882, by invitation of the President, Mr. Jesse read a paper in Birmingham, at the Birmingham and Midland Counties Branch of the British Medical Association, controverting the assumption that "scientific surgery is founded upon vivisection." The injurious and sustained assaults made by Mr. Jesse on the physiological citadel forced the Colleges of Physicians and Surgeons to found, on March 28th, 1882, an association for the "Protection of the Right of Vivisection," entitled the "Association for the Advancement of

Medicine by Research." Owing to the persevering exertions of the Society, created by Mr. Jesse, the agitation against the practice of painfully experimenting upon animals for scientific purposes has now, Professor Virchow admits, "in all countries attained a dangerous degree of vigour," and spread widely through England and Europe. Mr. Jesse is honorary secretary to this Society, and has written many pamphlets on the subject of vivisection.

The antiseptic fever—if we may coin a term which would, in some quarters, be regarded as almost indictable — appears to be in temporary recrudescence amongst our Transatlantic brethren, to judge from the large space which the subject occupies in recent American medical literature. In a former number we briefly abstracted a paper by Dr. Thomas, on the prevention and treatment of puerperal septicæmia, in which an elaborate antiseptic programme is described and recommended. Other writers have been contributing their views in the same vein, and the *New York Medical Journal*, for Jan. 19th, contains an interesting account of the antiseptic substances and methods which are employed in the New York Hospital. This is usefully supplemented by a paper descriptive of the various dressings which are, and have been from time to time, made use of in various European clinics, from the pen of Dr. Robert F. Weir—who, by the way, refers to "the too imperfectly honoured Sir Joseph Lister," as one whose successful labours in saving life appear to those on that side of the Atlantic to be worthy of higher recognition than the baronetcy which has just been bestowed upon him.

Dr. Weir pertinently remarks that the general practitioner can hardly be expected to have at his command all the materials which are at hand in a large and well-managed hospital; he may, however, as is pointed out, "have sundry powders of corrosive sublimate, of eight grains each, in his possession, and when called to a case of injury can rapidly add a pint of warm water to one of these powders, bathe the wound freely with the solution, dip into it some cheesecloth—or, what is even better, some absorbent cottonwool—then squeeze this out as dry as possible, or partially dry it by heat, and apply it to the wound. Drainage can be accomplished by perforated rubber tubing; and such a dressing, secured with a bandage dipped in the same solution, will answer for a first application, and permit you subsequently to prepare a more elaborate antiseptic appliance if you wish."

The question is still sometimes asked—does all this carefulness of detail "pay"? If statistics count for anything, the answer is not far to seek. To ask whether the success which is paraded on all hands is due to the careful employment of antiseptic precautions "or to cleanliness," is rather to beg the question. Antiseptic treatment, which is not surgically "clean" in all its details will not secure asepsis; and asepsis is recognised as the *beau-idéal* of cleanliness. The surgeon who adopts antiseptic treatment with the view of saving himself or others the trouble of maintaining rigid cleanliness must fail of his ideal if he stop short of either, and will attain both ends if he succeed in securing one. While he who has given a prolonged and honest trial to antiseptic treatment—even if he ultimately discard it in favour of less elaborate but not less careful details—cannot fail to have learnt and practised many points of special management and treatment which will assuredly stand him in good stead under any circumstances, and which will go far to explain his successful handling of methods which may seem, to the superficial observer, to bear no kinship to rigid "Listerism." The conflict, indeed, is one of words and phrases rather than of principles; and it is interesting to observe men pressing steadily towards the same goal, animated by the same motives, moving abreast upon paths which are not merely parallel but so practically one and the same that the travellers are separated only by that invisible partition which represents their own individuality or the bias of their critics.

Like all young subjects, however, antisepticism can evolve its own Nemesis from the rampant impracticabilities of extravagant enthusiasm, and can write its own sermon on the text "Is life worth living?" One of the most remarkable illustrations of the "Abuse of the imagination in Science" is furnished by a correspondent, in a recent number of the *New York Medical Record*, who, "in view of the great danger to the puerperal woman through the genital canal, and the *very great* difficulty experienced in employing proper prophylactic measures, as so clearly elucidated in the papers recently read before the different Medical Societies in New York," writes to suggest "that the Academy appoint a committee to investigate the advisability of instructing the 'gentler sex' (and, if thought necessary, make it compulsory) to wear an antiseptic pad over the valva from the inception of the catamenia until the menopause, to be non-removable without strict antiseptic precautions or under the carbolic spray."

Readers would probably regard this effusion as a joke of dubious quality, were it not that the same gentleman adds a postscript to the effect that his suggestion does not arise by any means from a theoretical standpoint, since he has had "a patient under such treatment, and as she escaped" puerperal fever, he thinks it a move in the right direction. It is obvious that the principle is one capable of much wider application, and that, if worthy of being adopted at all, it should be carried out completely. Immediate death and cremation, or solitary confinement for life—according to the decision of a Conjoint Board—should be the only alternative to taking our meals under the spray, constantly breathing a thymolised atmosphere, and slaking our thirst only with aseptic beverages.

Dr. B. Kraus, the editor of the *Allgemeine Wiener Medicinische Zeitung*, announces in the number for the 12th February that a microscopist is wanted in Paris, who is especially familiar with the investigations of bacilli. The post is to be a permanent one in a micro-

scopical institute of Paris, and a honorarium of 100 francs will be paid every month, which will soon be raised. This opportunity is recommended to any candidate or practitioner who wishes to pursue his studies in Paris, as he will at once be introduced into the best Medical Society of the French capital.

The occurrence of a distinct form of micro-organism in the sputa of persons affected with croupous pneumonia, already demonstrated by Friedländer and others, has been rendered still more certain by experiments made in Holland by Drs. Poel and Nolen. The former, having exceptionable opportunities of examining the bodies of animals dead of pneumonia, found these micrococci in abundance, the capsule which has been described as their distinguishing characteristic being very plainly visible. Similar organisms were at the same time obtained from cases of pneumonia in the human subject, and specimens of each were cultivated in special media. The resulting micrococci were found to be microscopically identical. Inoculation experiments were then made with each cultivation separately, but the results obtained were again exactly similar. The identity of the virus in the pneumonia of men and animals would seem, by these experiments, to be clearly made out.

Some interesting particulars of the dispensary department of King's College Hospital were presented at the Annual Court of Governors recently held. Within the last twenty years the amount paid for drugs, excluding carbolic acid, has decreased rather than increased, in spite of the addition of new wards to the hospital. The average drug expenditure of the four years 1864–1867 was just over 628*l.*, whereas the drug-bill for 1883 (excluding carbolic acid) amounted to only 598*l.* Carbolic acid first appears in the dispensary books in 1866, in which year the cost was 5*l.* 8*s.*, the price paid being half-a-crown a gallon. The acid now in use is more than ten times as dear, and last year the hospital paid 126*l.* for this drug alone. The amount used steadily increased from the year of Professor Lister's appointment, up till 1881, since which date there has been a slight falling off. Within the same period, as might be expected, the bill for methylated spirit has shown a steady rise. In 1878, only 96 gallons were used, costing 21*l.*; in 1883, the amount used had risen to 480 gallons, costing 70*l.* Thus when the extra expense entailed by the extended use of antiseptic treatment is subtracted, it will be seen how much less is spent on drug treatment at King's College Hospital nowadays than twenty years ago. We should like to have had an opportunity of comparing these statistics with a comparative statement of the amount of alcohol consumed in the surgical wards before and since the adoption of antisepticism. The laudable pus that the old surgeons were so fond of, must have consumed a good deal of brandy that is not needed nowadays, not to mention the extra stimulation required by the erysipelas and pyæmia that were once not unknown at King's. We imagine that carbolic acid, expensive as it is, saves ten times its cost in the long run. In the same return from which we have gleaned the above figures, it is stated that the legacies to the hospital have greatly fallen off of late. For many years the amount received from this source averaged 6,000*l.* a-year, but the average of the last three years was only 1,300*l.* The falling off is probably only accidental.

It is high time for the profession to throw over once for all the foolish pedantry of writing the directions in a prescription in a language which ninety-nine out of a hundred prescribers are utterly ignorant of, even in its canine variety. The most obstinate latinists at the College of Physicians probably agreed with us when they came across the following prescription by one of their members in last week's *Lancet*:—

> "℞ Infusi foliorum recentium saxifragæ, ʒiii. [Faciat, ex aquâ calidâ, xcviii.° Fahr., per horas sex; foliorum i., aquæ x.] Glycerini, ʒi. Misce. Fiat injectionem, ut bis die utendum."

There is considerable *naïveté* about that prescription.

The rumour to which we alluded last week, that there was some probability that an Oxford Medical Graduates' Club would shortly be formed, has speedily been verified. At a meeting, held on Wednesday last, of Oxford graduates practising medicine or surgery it was unanimously agreed that such a club should be formed, and April 4th was fixed for a general meeting to be followed by a dinner. The Secretaries are Dr. Samuel West, 15, Wimpole Street, and Mr. John H. Morgan, 68, Grosvenor Street, a sufficient guarantee that the scheme will be made a thorough success.

Dr. Clifford Allbutt's third Gulstonian Lecture, on the Neuroses of the Viscera, will be delivered this (Friday) afternoon at the Royal College of Physicians. We publish in the present number abstracts of the two previous lectures, though it must be admitted that the second lecture, with its long and valuable series of skeleton cases, does not well bear abstracting, but should be carefully studied when it appears in its complete form. The lectures ought to have a marked effect on the practice of the profession.

THE MEDICAL ACT AMENDMENT BILL.

The Government Bill for the Consolidation and Amendment of the Law relating to the Medical Profession has been promptly introduced into the House of Lords, and was read a second time, as we last week stated, on Thursday the 6th instant. The measure is, with one rather important and two slight exceptions, exactly the Bill of 1883, as, after it had been considered and amended in the House of Lords, it was introduced in the Lower House, only to be abandoned, without having got a step farther, by its authors at the close of the Session. The slight changes, by which we do not mean the improvements in drafting made in the measure, are certainly acceptable amendments though small ones. In the clauses defining the conditions upon which colonial and foreign practitioners will be entitled to registration in the "Medical Register" without examination

in the United Kingdom, words have been added requiring that each such applicant for registration, besides proving that he holds some recognised colonial or foreign medical diploma and is of good character, must further show "that he is by law entitled to practise medicine, surgery, and midwifery" in the British possession, or foreign country, from which he obtained his diploma. The significance and possible importance of the added phrase will be recognised, when it is recollected that medical degrees and diplomas do not in all countries carry a licence to practise—a State examination also having to be passed before that privilege can be obtained. The only other small alteration that we have noticed occurs in Part IV., Clause 29, which provides for the correction of the Medical Register. By the Act of 1858, and by the Bill of last year, the Registrar was authorised to erase from the Register the name of any practitioner who left unanswered, for six months, letters of enquiry from the Registrar; but the Bill of the present year provides further that, when no reply has been received from a practitioner within the stipulated time, the Registrar "shall place the name of such person on a separate list for one year, after which period that person shall" be deemed to have ceased to practise, and his name may be erased from the Register without his consent having been obtained. An additional protection is thus afforded practitioners against the consequences of mistakes of Post-office officials, or of their own neglect or carelessness.

The important alteration in the Bill, to which we have alluded, concerns the constitution of the Medical Board for Scotland. The universities in that division of the kingdom were by the Bill of 1883 granted eight representatives on the Board, and the medical corporations only three. By the present Bill no change is made as regards the representation of the universities, but two more representatives are given to the corporations. Instead of giving one representative to each of the three corporations, two are to be chosen by the Royal College of Physicians of Edinburgh; one by the Royal College of Surgeons of Edinburgh, and one by the Faculty of Physicians and Surgeons of Glasgow, each voting as a separate elective body; and one by the College and by the Faculty voting collectively. The device of dividing the fifth representation between the College and the Faculty is a rather curious one; but the granting of two more representatives to the corporations, while still leaving to the universities a decided preponderance of representation on the Board is wise and polite, and may perhaps disarm the opposition of the corporations. No similar sop is given to the Irish corporations; and it may be expected that those bodies will continue to oppose the measure to the utmost of their powers. Indeed, the College of Surgeons in Ireland has already commenced active hostilities; and a deputation from the Council of that body, a short while ago, interviewed the Lord Lieutenant with the object of entreating him to use his influence to obtain the reconsideration of the establishment of the proposed Medical Boards, which the College regard as unnecessary, injudicious, and detrimental to the public. It hardly need be added that the Lord Lieutenant did not sympathise with the College in their views and alarms; but he kindly advised them to place themselves in direct communication with Lord Carlingford. We do not think the Bill a perfect one, or that *all* its provisions are either necessary for, or best calculated to promote, the efficiency of the profession, and the welfare of the public. But some of the provisions of the measure are urgently called for, and the medical authorities and the profession have seriously to consider whether a continuance of the agitation for reform is not likely to be more injurious than would be the Government Medical Act Amendment Bill were it to become law.

THE NEW PHARMACOPŒIA.

Ten years have passed since the General Medical Council republished the Pharmacopœia of 1867 with additions. The book was then out of print, and to meet the wants of the day "addenda" only were required. Within the space of six years at least one new remedy had come into use. To order a reprint without some notice of chloral-hydrate was impossible; moreover, a fixed strength for the syrup in which it was largely dispensed was much needed. The hypodermic injection of morphia also called for an officinal solution of uniform and definite composition. From time to time a work of this kind must be done, and few will think ten years too short a time for it. Even after an interval of five years some changes have to be noted; after another ten years not only is there new matter to be added, but the time has come for a complete revision. This last epoch is marked by an extension of the germ theory of disease, a larger use of antiseptics, a great increase in germicide agents, and a feeling for local treatment. Hence in our *materia medica* we find oleic acid, the petroleum derivatives, thymol, menthol, boracic acid, and the greatest of our recent gains—salicylic acid. This acid, known since 1838, could not be used largely in medicine, until it was obtained as a derivative from carbolic acid, in 1874, by Kolbe.

Before entering fully into the changes the last ten years demand, it may be well to state the chief objects of revision. These are—(1) selecting and adopting new remedial agents of tried efficacy; (2) fixing the best mode or form for preparing and using them; (3) giving uniformity of strength and officinal position to the forms to be generally prescribed; (4) correcting or amending defects; (5) removing what is or has become useless; (6) avoiding change for the sake of change. Judging the addenda of 1874 by those tests, it would seem that the Horatian maxim—*nonumque prematur in annum*—applied to this kind of literary production. Under the first head areca-nut and larch-bark will hardly stand trial; acetic ether and nitrate of ammonia are little used. Pepsine was not a new agent, it came in to amend a defect; the same may be said of the hypophosphites. Chloral and nitrite of amyl are the only real gains. Under the next head, *aqua chloroformi* is exactly what was wanted, it gives an aqueous solution of full, and therefore, of uniform strength, sufficient to produce some useful effects of chloroform in small doses, and readily diluted for other purposes. The *tinctura quiniæ ammoniata* is a serviceable form. The preparations of phosphorus are open to censure under the third

head. Here scammony and elaterium may be rightly treated, but it was wrong to alter the strength of the widely used *pulvis glycyrrhizæ compositus*, and to leave out two of the ingredients. The fourth and fifth criteria may be applied indirectly; it will then be found that more than half of the thirty-four additions might be removed without much loss to therapeutics.

Foremost among the new remedies to be embodied in the new pharmacopœia stand boracic and salicylic acids; the former required almost entirely for external use, the latter chiefly for administration as salicylate of soda. A solution of boracic acid, in the proportions of one part to thirty of water, is needed; also a glycerine of it, either saturated or like that of carbolic acid; and an ointment that should be uniform in appearance and strength, instead of differing widely in both these respects as do those now in use. The absolute identity of salicylic acid, as prepared by Kolbe's process, with that obtained by Piria, in 1838, from winter-green, justifies the adoption of the former. Individual fancy may dwell on the fitness of salicine from the willow for the cure of ague, or that from spirea and actæa for rheumatism; the objections to prescribing it in the way advocated by the few who use it are, that when taken, it must first be converted into salicylic acid, and then unite with soda in the blood; it is uncertain how much of what we give is so converted, and in what time; we cannot get the full effect soon enough, and we may have a cumulative effect increasing when we wish it to cease. Solutions of salicylic acid with citrate of potash or acetate of ammonia are less definite than the soda salt, which it is hoped will be the officinal form adopted.

Other necessary additions are codeia and pilocarpine. Croton-chloral hydrate should be added, perhaps under its true name of butyl-chloral, for it does not belong to the crotonic acid series. The iodide and bromide of sodium are wanted; but, not the unstable iodide of ammonium. Hydrobromic acid deserves a place. Oleic acid has become a necessity; and vaseline. Menthol is a safe germicide, and is not an irritant. Thymol, as an antiseptic, will often replace carbolic acid. Of the sulpho-carbolates, that of zinc may be chosen; others that have been advocated hardly answer the expectations formed of them as medicines. There is fear lest too many, rather than too few, of the newest claims of old or new agents should be allowed; those of apomorphia, and of the recently prepared chrysophanic acid will need careful consideration. Euonymin, baptisin, leptandrin, and others of the class, may be passed over. An extract of the cascara bark might be admitted. Caffeine should be accepted, but not Lily of the Valley. Sclerotic acid is wanted for hypodermic use; and a tincture of quillaya to prescribe in mixtures with resinous tinctures.

Some points falling under the second and third heads have been already touched upon; there remain two worth noting, a tincture of podophyllin and a powder of colchicum seeds. Podophyllin dissolved in too little spirit deposits some of the resin; a strength of one grain to two drachms, or of five grains to an ounce, might supersede the two tinctures now in use, one of which contains one grain to the drachm, the other one grain to the ounce. The seeds of colchicum are generally more reliable than preparations from the corms or flowers, because they keep well, and the latter cannot often be dealt with while fresh. We use the seeds for the tincture, and should have them in powder; a pill with this and powder of digitalis is widely prescribed, and no doubt should remain that powder of the seeds and not of the corms is intended.

Coming to the fourth head, besides correcting the compound liquorice powder, the old *spiritus juniperi compositus* should be restored; this form recognises that a stimulus to the general circulation often aids a special secretion, and enables us to prescribe a weak spirit, where to order gin would be objectionable; the present *spiritus juniperi* could remain; it is uniform with other spirits, and may serve for the administration of the oil of juniper, when that is desired. The *liquor hydrargyri perchloridi* would be better without chloride of ammonium. The dose of this at the lower limit should be still lower; that for the higher limit of iodide of potassium requires a great increase.

In removing what has become useless more delicate ground is entered upon; no form still in use should be removed without good reason given. It may be well to mention some that are little used, or of doubtful utility, so as to call forth champions who may believe in their virtues to speak in their favour. Who knows anything of elemi? What is the medical efficacy of dulcamara or lettuce? Who uses castor, elm-bark, oak-bark, kousso, serpentaria? Sarsaparilla sometimes does good; it may do less without the sassafrass and mezereon. Bael may be useful as a fresh fruit in India. Lemons and barley are most important aids to treatment, and are rightly in the pharmacopœia. So are the colouring matters, cochineal and saffron. No one now pleads for their soothing or antispasmodic powers. Better retain some harmless remnant of the past, and consent to be old-fashioned, than have to plead guilty to rashness in hastily admitting some active principle just discovered or made that might prove dangerous, *Digitalin* for instance, until it has received careful and prolonged trial.

REVIEWS AND NOTICES OF BOOKS.

MANUALS OF MEDICAL ELECTRICITY.

The use of electricity in the diagnosis and treatment of diseases of the nervous system has increased to such an extent of late years, that any good work on the subject is welcome. The first of the volumes under review, which has found a careful translator in Dr. Putzel, is divided into five parts, delivered in the form of lectures—thirty-six in all—of which the first three are occupied in discussing the physics of electricity. The author by no means dips deeply into this interesting part of his subject, but commences by assuming the reader to be already well acquainted with it, a fact which serves to account for the absence

"Handbook of Electro-Therapeutics," by Dr. Wilhelm Erb, Professor in the University of Leipzig. Translated by L. Putzel, M.D. Sampson Low and Co. 1883. pp. 360.

"A Practical Introduction to Medical Electricity," by A. de Watteville, M.A., M.D. Second Edition, London. H. K. Lewis, 1884, pp. 200.

of certain details and diagrams which one would otherwise have expected at the outset. He touches, however, upon all that is absolutely necessary to make the physical introduction explanatory of what follows. We cannot pass over this part without expressing our cordial agreement with Professor Erb in what he says of the element numerator, the polarity changers, and the galvanometer as accessories of a good battery. We have long held that a reliable galvanometer is a most essential part of a galvanic battery, and that without it there can be no certainty as to the strength of current for purposes of diagnosis or therapeutics; moreover, we all know how batteries vary, from time to time, especially if much used. It would be well if all authors would accept the milliampere as the unit of strength, as it would be of immense service in describing cases, especially when reporting upon the irritability of nerve-structures.

The second part of the volume is taken up with the electro-physiology of nerves and muscles, and is matter which one expects to find in any recent physiological work; but in the third part—devoted to methods of electrical examination and electro-diagnosis—his remarks on "degeneration reaction," a term, it will be remembered, first employed by Professor Erb, are excellent and amongst the best in the book. Each paragraph is carefully and thoughtfully written, and is full of instruction and information. After giving a typical description of degeneration reaction, he adds some important explanatory remarks. Amongst them he points out that in many cases of slight or commencing degeneration there is a form of "double contraction;" upon closure a short lightning-like contraction of the adjacent healthy muscles is observed at the beginning, being followed at once by the slow characteristic contraction of degeneration reaction. This may be distinctly seen in lead palsy. He also mentions the important fact that well marked degeneration reaction is occasionally noticed in muscles which are not at all paralysed, or have only slightly diminished power. In this part his schematic representations are very good.

The fourth part deals with general electro-therapeutics, passing in review the various theories which have been advanced in explanation of the curative effects of electricity. As he considers it possible that the favourable effects of methodical exercise upon the nutrition of muscles is attributable to the fact that every motor irritation is associated with irritation of the trophic fibres, and that the negative processes are thus stimulated, he seems to think that the curative effects of electricity may be explained in a similar manner, but confesses that we are compelled to acknowledge the deficiency of the theoretical basis, and wisely holds that it must be studied on an empirical one. His observations in the thirteenth lecture, on the direction of the current, are most important, owing to the difference of opinion which exists as to whether the polar action or the direction of the current should be taken as the foundation for the method of application. Erb considers, and we agree with him, that proof is still required that the direction of the current is an essential factor in its action. Indeed, there are strong reasons in favour of the polar method, although nothing has been certainly proved. The last lecture of Part IV. is thoroughly practical, containing remarks on, and plates of, the motor points, as well as valuable advice as to the strength of current, the necessity of personal knowledge of the effects of currents, and the duration of sittings.

The fifth and last part, which forms more than half the volume, is, of course, the most important to the practical physician, for it deals with special electro-therapeutics. The introduction to this part is written in a careful and scientific manner. If all work were carried on with the accuracy he desires to obtain, we should be, indeed, fortunate in our literature. We can hardly endorse his views concerning the action of electricity in certain forms of brain disease. The catalytic effects of electrical currents may doubtless raise great hopes of what may be done, and judging from their influence in such affections as chronic effusion into joints, one may believe that hæmorrhagic extravasations, œdema of the brain, and the like, in cerebral disease may be influenced; but in the present state of our knowledge we are not so enthusiastic as to believe that "sclerotic, degenerative, and similar conditions" can be relieved or moderated. The pathology of these affections, we consider, points quite the other way. Even in the external zone of an ordinary sclerotic patch, where we know the degenerative processes are least advanced, the neuroglia is increased in amount, with multiplication of its nuclei, and the nerve-tubes are lessened in diameter at the expense of the white substance of Schwann; whilst in the central area there is hardly anything but neuroglia, most of the nerve-cells and nerve-tubes having disappeared, those remaining being greatly atrophied. Therefore, to cure sclerotic changes, we must cause absorption of condensed material, and restore lines of nervous tissue, or create new ones for the conduction of nervous energy—difficulties not likely to be overcome by electricity. We must always bear in mind, also, that there are many cases of such affections as tabes dorsalis, or disseminated sclerosis, which become arrested without any electrical or other treatment whatever. In his cases bearing on diseases of the brain and cord, there is much of interest, and many of them would bear reporting at greater length. We cannot but think that electricity should be applied to the brain with the utmost caution, for it is impossible to tell exactly in what condition the brain tissue is after hæmorrhage or embolism; therefore the general rules given in Lecture XVI. are most necessary. In the lecture devoted to the treatment of individual forms of spinal disease, amongst others the author mentions compression myelitis where due to Pott's disease, as offering relatively favourable chances, but we must remember that this is frequently recovered from without any treatment whatever, except rest in bed.

In the treatment of lead palsy (which the weight of evidence shows, in his opinion, to be of spinal origin—the primary change taking place in the anterior grey horns) and other toxic paralyses, we are somewhat surprised to find no mention made of electric baths or of the possibility of eliminating metallic poisons by such means. We mention this, as it would have been

interesting in such a work to have had Erb's views on the subject, and any new facts at his command as to the treatment of plumbism.

In the lectures on pain and neuralgia—amongst the best in the book—it is disappointing to learn that he cannot confirm the statements of Frommhold regarding the good effects of electricity in migraine, from which so many suffer, and he, therefore, states that in this respect migraine is distinguished from other neuralgias. The manner in which diseases of the ear are dealt with is excellent, and the small but interesting collection of cases remarkably instructive, and well worthy the serious consideration of aural surgeons.

There are many other points in Prof. Erb's work upon which we should like to have remarked, but in the space at our disposal it is impossible to do more than touch upon some which appear more important. In such a book it would have been useful to have tables for reference—as, for instance, the diseases in which irritability of nerve is increased, those in which it is diminished, &c. A fuller index would also be an advantage. Whilst enthusiastic in some respects, the author is never carried beyond scientific accuracy, as his remarks in numerous places prove. The spirit in which he writes may be gathered from the following: "It is evident we have to deal in the main with empirical methods. I cannot warn you too strongly against illusions based upon theoretical views or against therapeutical illusions founded upon uncontrolled observation. Electro-therapeutic literature swarms with such instances, and the defective criticism of observations has led to immense unsuspected deceptions." After carefully reading through this work, it is refreshing to close it with the belief that the author is conscious of the fact that, much as electricity can do, it is not a panacea for all the diseases to which flesh is heir.

If we have had to allude to the paucity of illustrations in Professor Erb's work, we are certainly spared the necessity of making the same comment in the case of Dr. de Watteville's. The number of woodcuts relating to electrical instruments and appliances contained in the latter, is exactly double the total number of all the illustrations in the former; we are, however, not disposed to find fault with Dr. de Watteville on this account, more especially as he tells us in his preface that he has taken especial care to keep the number of illustrations within reasonable limits. As regards the measurement of electricity, Dr. de Watteville is able to speak of the adoption of the milliampere as the electrical unit as an accomplished fact, and its more general recognition is now only a matter of time. The ampere, we may mention, represents a current conveying the unit quantity of electricity, *i.e.*, one weber during one second. This unit has this to recommend it, viz., that a current of one milliampere is that given by three Daniell's cells through the human body. We have then in this unit a convenient and simple method of measuring and recording the strength of the current used in any given case. Under the head of electro-diagnosis our author enters a vigorous protest against the notion that electrical investigations do not call for special training on the part of those who conduct them. He considers that the fallacies besetting it are far more numerous and subtle than those attending the other methods of physical examination of the living organism. Now, admitting that there is a great deal of truth in what he says, yet it will be well not to push this view too far. Diseases in which the battery is called in, either to aid in diagnosis or for purposes of treatment, do not constitute a very large or important part of the work which the general practitioner will be called upon to perform, and in the education of the student this fact should not be lost sight of. Some excellent advice is given on the use of the galvanometer, and the means by which fallacies in diagnosis may be avoided, and the sections on galvanisation and faradisation furnish admirable and clear descriptions of their respective subjects. In an Appendix, the use of electrolysis in the treatment of nævi, port-wine stains, cancerous and fibrous tumours, cystic growths, and enlarged glands, is spoken of with much favour, one of its chief recommendations being that there is no cicatrisation after the removal of any such diseased condition by this method. In conclusion, we would say that the volume before us is an evidence that its author has had a large experience, and has used that experience well. With these valuable works, as well as the translations of Duchenne's book, and Dr. Hughes Bennett's less pretentious, but, nevertheless, useful volume to choose from, the student of the present day has every opportunity of mastering the principles and practice of this branch of the healing art.

A Manual of Psychological Medicine and Allied Nervous Diseases; by EDWARD C. MANN, M.D. Demy 8vo., pp. 691. Illustrated. J. & A. Churchill, 1883.—The modesty, fairness, and gentlemanly spirit with which Dr. Mann writes, are so pleasing and are in such striking contrast with the tone of other books on psychological subjects that we have recently had to review in these columns, as to produce a very favourable predisposition towards him and his book. The latter is a work of considerable interest and considerable value. It is a most useful book of reference, and one that every student of nervous diseases may consult with advantage. Its merits are due to its mode of construction, which is very peculiar, and indeed altogether unique. Every chapter is introduced by a few statements of an extremely general nature—general in the sense not of generalisations but of generalities. They are descriptions in general terms of the empty shell of some individual case, which has been eviscerated of all its concrete contents. The remainder of the chapter is for the most part composed of quotations from different authors. It is in the length and number of these quotations that the peculiarity of the book consists. Dr. Mann has evidently read very extensively, but instead of following the prevailing practice of reproducing his predecessors' ideas in his own words, he follows the far better and fairer practice of allowing them to speak for themselves. He collects the writings of the best authorities on each subject, and reproduces them *in extenso* in their own words, and of course with due acknowledgment. The result is that each chapter is a symposium on the subject of its title. The generosity with which he yields up his space to others is quite surprising. In his chapter on the Treatment of Insanity, Dr. Pliny Earle is quoted to the extent of six pages of small type. Dr. Gray, of Utica, occupies eighteen pages and a half, eleven of which are devoted to a reproduction of evidence taken before the English Parliamentary Committee of 1877. Dr. McDonald, of New York, follows with four pages, Dr. Kirkbride with eleven, Dr. Cowles with seven, Dr. Maudsley with two, Dr. Ray with four and a half, and a quotation from the Pall Mall Gazette occupies two more. More than half the chapter is taken up by these lengthy reprints, while great part of the remainder is made up of shorter reproductions. The chapter on Epilepsy is made up of seven pages and a half of original matter, and sixteen of

quotations. These reprints, as we may term them, are nearly all valuable, selected with care and judgment, and many of them are taken from sources that are now accessible with difficulty, or not at all. Herein lies the value of the book. Dr. Mann has put himself at a great disadvantage in compelling a comparison between himself and the many eminent men whom he quotes at such length; but even after making great allowances on this score, the part of the book that is written by himself is still open to a good deal of unfavourable criticism, which we would fain have been spared from making: and all the more so since most of the defects that we have to point out might have been avoided by the exercise of a little ordinary care. There is a lack of due proportion in the space and attention devoted to the various subjects. The histology and functions of the entire brain are disposed of in seven pages of a book of seven hundred, devoted to insanity and nervous diseases. On p. 326, the physiology of the corpus striatum is disposed of in three lines, and that of the optic thalamus in two. An entire chapter—not too much—is devoted to General Paralysis, but the etiology of the disease is referred to only in a footnote of three lines and a half. The literary style is bad, often very bad. On p. 88, we read "Her testamentary capacity, although an incurable case of insanity, was perfectly good, and her will perfectly valid." Again, p. 128, "The case just referred to had complained of pains in the head and sleeplessness, which had displayed marked periodicity, and which had been accompanied by great irritability of temper, excited by trifles, &c." Dr. Mann seems unable to make up his mind whether to speak of himself in the singular or the plural; in the event he compromises matters, and speaks as "I" in the text, and as "we" in the footnotes. The numbers of the figures in Plate II, which represent microscopical sections, have got mixed: figures 3 and 5, which are described as sections of brain, being sections of spinal cord. The titles of the figures in the frontispiece, which are photographs of people exemplifying the chief varieties of insanity, appear to have been similarly shuffled. The facial expressions of most of them are not, it is true, in the least characteristic of any form of insanity. The only one which is at all instructive is that labelled "general paralysis," and that is not at all like the face of a general paralytic, but is a tolerably accurate delineation of the expression seen in cases in which chronic melancholia is merging into dementia. Miliary sclerosis is described as a pathological change, no mention being made of the doctrine, now generally accepted, that it is a *post-mortem* change due to the immersion of the tissue in spirit. Regarded as a compendious work of reference, in which the views of many workers can be consulted in convenient proximity, the book is a success; to judge it as an original work would be unfair, since to originality it makes no pretensions.

Insanity considered in its Medico-Legal Relations; by T. R. Buckham, A.M., M.D. 8vo, pp. 264. Lippincott and Co., Philadelphia, 1883.—The author of this book has brought together the dicta of a large number of judges, both English and American, upon the subject of insanity; and the symposium so constituted contains, perhaps, a greater diversity of opinion and more positive contradictions than could be adduced regarding any other topic whatever. The remainder of the volume consists mainly of a plea for the employment, in trials where the question of insanity is raised, of experts who have a knowledge of the subject; and especially for their employment, not by the prosecution nor the defence, but as *amici curiæ*. The argument is somewhat tedious, and much of the reasoning does not apply to the state of things existing in this country. If the author would omit the remainder of the book and republish the collection of judicial dicta in a pamphlet form, he would deserve well of the public.

Poisons: their Effects and Detection. By A. Wynter Blyth. London: Chas. Griffin and Co., 1883.—Mr. Wynter Blyth's somewhat bulky treatise on the effects of poisons and their detection is, as might be expected, addressed rather to chemists and analysts than to practitioners or students of medicine. In his classification of poisons, Mr. Blyth has struck out a new line, and after dismissing the acids and alkalies, discusses poisonous substances capable of being separated by distillation from neutral or acid liquids; he next takes the alkaloids, then poisons derived from living or dead animal substances, then the oxalic acid group, and lastly, inorganic poisons. In his opening chapter, he describes this arrangement as partly chemical and partly symptomatic, and he adopts it on account of its representing, as far as possible, the order in which the chemical expert would search for an unknown poison. Each subject is dealt with in a methodical manner, especial attention being paid to the chemical character and physiological properties of the various substances. One of the most valuable sections of the book is that on the vegetable alkaloids, the methods of separation being expressed in an unusually clear form; and a table of the behaviour of some thirty-six alkaloids, as regards colour, under the influence of certain reagents will doubtless prove useful. The volume concludes with two appendices—one on the examination of blood stains, the other on the immediate steps to be taken in a case of poisoning; and the author winds up with the following aphorism—if any one is known to have taken poison, and yet the precise nature is not known, give a sulphate of zinc or ipecacuanha emetic, and follow it up by the multiple antidote, a mixture containing a saturated solution of sulphate of iron, magnesia, and animal charcoal.

Legal Medicine, Part II.; by Charles Meymott Tidy, M.B., F.C.S. London: Smith, Elder and Co., 1883.—The chief subjects dealt with in this volume are pregnancy, abortion, live birth, infanticide, drowning, hanging, strangulation, and suffocation. The great importance of this group, from a forensic point of view, will be conceded by all; indeed there are, probably, no questions in the whole range of medical practice which raise such difficult points as those respecting live birth. The general plan of the former volume is closely followed out in this one, and the manner in which Dr. Tidy has collected facts from all parts of the world, and extending over a considerable range of time, is worthy of the highest praise. As we noticed the first part at some length, we need only say now that this second part fully justifies the high opinion of the work at which we then arrived.

ABSTRACTS AND EXTRACTS.

PHARMACOLOGY AND THERAPEUTICS.

Transfusion of Blood in Albuminuria.—The *Gazette Hebdomadaire* for January 18th publishes what it regards as a very important paper, bearing this title, read by Dr. Dieulafoy, of the St. Antoine Hospital, at the Hospital Medical Society. He first draws attention to the remarkable fact that the lives of persons dying from hæmorrhage have often been saved by the injection of so trifling an amount of blood as 100 or 150 grammes; and he relates a case in point, in which a person dying of an epistaxis which resisted every measure resorted to during 20 days, was at once rescued from danger by the transfusion of 120 grammes of healthy blood. Such a case as this, however, differs from those cases of traumatic hæmorrhage (consecutive to operations or to delivery) in which the cause is purely accidental, for it is brought about and maintained by an altered condition of the blood, of an ill-defined nature, termed for want of a better name *hæmophilia*—a dyscrasic condition in which perhaps the structure of the small vessels is at fault, but in which the blood certainly is no longer possessed of its normal properties. Life has been saved by transfusion in several cases of this kind, not merely because the blood supplies an additional amount of fuel to an expiring lamp, but because it plays the part of an agent which is to some extent hæmostatic. The addition of so small a quantity of healthy blood serves to modify advantageously the composition and fabrication of the blood that seems to have lost its principal qualities. "In such a case," Dr. Dieulafoy observes, "the infused blood acts, I repeat, as a hæmostatic agent. It is a powerful modifier, rapidly transferring a

dyscrasic condition of long date by a special action, the mechanism of which is as yet but ill-known, but with a result well calculated to attract attention. All the importance of these facts, which seem to me to dominate the history of transfusion, has not yet been sufficiently brought out. A closer investigation of them has led me to ask, like many others for that matter, whether there is not reason for the applications of transfusion to some dyscrasic conditions in which alterations in the blood seem to play an important part. May not dyscrasic hæmorrhages, uræmia, and Bright's disease, diabetes, and acetonæmia, the paroxysm of gout and rheumatism, derive benefit from this modifying agent, the effects of which we are as yet ignorant of, because they have not been sufficiently investigated?" In order to render an extended theraputic application of transfusion possible, Dr. Dieulafoy has contrived an apparatus, which he believes will much simplify and facilitate its application. An illustrated description of it, as laid before the Académie de Médecine, is contained in the same number of the *Gazette Hebdomadaire*. In the present paper he relates three cases of Bright's disease in which transfusion was performed; but he admits that nothing conclusive can be decided from them. They however establish the innocuity with which injections of 120 grammes of blood may be performed, even in the later stages of Bright's disease; and also the temporary amelioration that may be obtained, even when the lesions are of the most formidable character.

Quebracho in Asthma.—Professor Da Costa has had some very satisfactory results from the treatment of dyspnœa by quebracho. In a recent lecture he said that in his experience it had been especially serviceable in two classes of cases. 1. In purely nervous asthma he had found it to be invaluable. 2. In cases which have been rather loosely called cardiac asthma, cases in which a heart lesion has produced failure of cardiac contraction and consequent congestion of the lungs, he had also known it to be very useful. It may serve as a cardiac tonic, or may do good solely by its action on the respiratory centre in the medulla. Whatever be the explanation, however, quebracho gives relief in appropriate cases. Dr. Da Costa gives it in the form of the fluid extract in doses of twenty minims every hour, gradually increasing the amount, some patients requiring as much as a drachm before relief is obtained. The good effects are usually observed after two or three doses have been taken. The taste is well covered by using equal quantities of French syrup of red oranges and water as the vehicle, and in this form it usually agrees with the stomach. As the symptoms are relieved, the remedy may be given at longer intervals.—*Boston Medical Journal*, December 27th.

Alum in Hæmaturia.—A case of severe hæmorrhage from the kidney successfully treated by an unusual remedy, is recorded by Dr. J. S. Radcliffe, in the *Philadelphia Medical News* for January 12, 1884. The cause of the hæmaturia is left an open question. It is stated that the patient, a lady, aged twenty-five, had suffered from malarial disorders, and that there was a family history of heart disease and rheumatic fever. At the time of the attack, however, the temperature was but slightly raised, and the heart sounds were normal. Although the hæmaturia came on suddenly, with paroxysmal pain in the right lumbar region and with nausea, it is curious to note that the urine remained bloody for nearly three weeks. During this time, almost all the astringents were tried with no beneficial effect. The patient was first given gallic acid alone, then in various combinations, the acid with quinine, with ergot, with sulphuric acid, with opium. She also took tannic acid, sugar of lead and opium, fluid extract of ergot, infusion of buchu and matico, muriated tincture of iron, and with this quinine; extract of logwood, and extract of hamamelis. Ice was employed internally and externally, and counter irritation, by sinapisms and blisters, was used. The hamamelis appeared to lessen the hæmorrhage slightly, but for the rest, Dr. Radcliffe says "it appeared as if I might as well have given her so much cold water." Rockbridge water was then used on theoretical grounds, champagne-glassful draughts being taken every three hours. Beneficial effects were manifested with the third dose, and on the fourth day the urine was free from blood corpuscles, and on the sixth day it was normal in colour, quantity and quality. It merely remains to add that the Rockbridge alum water appears, from an analysis appended to this paper, to be remarkably rich in aluminium sulphate, and to contain very appreciable quantities of calcium and magnesium sulphates, free sulphuric acid and cilicic acid. It is said to have been employed with benefit in chronic discharges, such as diarrhœa and bronchorrhœa.

Administration of Salicylic Acid.—The apyretic effect of salicylic acid is one of the most remarkable and important therapeutical discoveries of our age, and its control over all such conditions as are generally met with in acute and subacute rheumatism is almost complete. Its applications, therefore, in medicine are very numerous and very important. In its internal use, the points necessary to be borne in mind are the disturbing effects of very large doses, and the rapidity with which it is eliminated. It should, therefore, be given in full doses at first until the impression is made, and then in moderate or small doses, frequently repeated. It is best given in wafers or cachets, and it should not be packed in capsules. Two or three doses of fifteen to twenty grains, with two or three hours intervals, will usually produce its characteristic beneficial effects. Then ten grains every two hours, with intervals, gradually increasing to three and four hours, will serve to keep up the effects with the smallest risk of such disturbance as will require it to be suspended when most needed. Of late it has been more rarely used, the salicylate of sodium having taken its place with the same effect, and with some advantages. It is a curious and very important circumstance, that full doses of the acid or salicylate do not interfere with the digestive functions of the stomach, and yet a very small quantity will prevent the action of pepsin. At least this statement is made on what appears to be very good authority. An ordinary cold saturated solution contains somewhat about one part in 300; and such a solution is very convenient as a vehicle of solutions of alkaloids for hypodermic use. If a dram of the acid be added to a pint of water and the mixture well shaken, such a solution, with some undissolved acid at the bottom of the bottle, will be the result. Then, if this be used entire, or diluted with an equal portion of water, for making hypodermic injections, such a solution will remain free from growths of all kinds for an indefinite length of time, and will not be more irritant than when made from water alone.—*Squibbs' Ephemeris.*

Resorcin in Pertussis.—Another remedy has to be added to the hundreds already known for pertussis. Dr. Moncorvo, of Rio Janeiro, in a communication to the Paris Société de Médecine, fully believing in the parasitic origin of pertussis, recommends the employment of an aqueous solution of resorcin (one per cent.) carried by means of a soft pencil with a long handle to the superior orifice of the glottis. Resorcin is more soluble, less irritating, and much less odorous than carbolic acid. He has applied the remedy in 30 cases every two hours during the day-time, and in all of these recovery was rapid.—*Turin Méd.*, February 5th.

Disguising the Smell of Iodoform. — Dr. Leidy, writing in the *Philadelphia Medical Times*, December 15th, observes that the best substance that he has met with for disguising the odour of iodoform is *oil of citronella*, which, unlike many substances employed for this purpose, has the further advantage of being very cheap. Two drops to a drachm are sufficient. It may also be added to cod-liver oil for the same purpose, when this is used externally. The citronella oil itself, when used externally, is a rubefacient and anodyne, and may be employed either alone or in combination.

Salicylic Acid Paste in Eczema.—Dr. Van Harlingen recommends the following:—Acid. Salicyl. gr. xv., Petroleol. ʒiv., Pulv. Zinci Oxidi, Pulv. amyli, aa ʒii. Rub up into a smooth paste.—*Philadelphia Med. Times*, December 15th.

Strychnia in Delirium Tremens.—Dr. Dujardin-Beaumetz (*Bulletin de Thérapeutique*, January 15th), while disagreeing with the opinion of Dr. Luton, of Rheims, that strychnia is the appropriate medical agent for combating alcoholism in general, is quite in accord with him as to its great value in the treatment of *delirium tremens*. In this it is one of the most certain and efficacious of remedies which he has successfully availed himself of in many cases at the St. Antoine Hospital. He administers it in hypodermic injections, beginning with a dose of five milligrammes, which he repeats in five hours. Sometimes, if the symptoms persist, he gives a third injection within the twenty-four hours.

Patent Medicines.—The Philadelphia correspondent of the *Boston Medical Journal* writes (January 17th) concerning these:—"The leading druggists of this city, becoming disgusted with the patent medicine traffic, have decided, after the 1st inst., not to deal in those proprietary medicines which are sold as merchandise to non-medical dealers. It is now, and has been for some time, indeed considered very bad 'tone' for a scientific pharmacist to exhibit patent medicines in show cases, or to have their lying placards hung up in the store; much less would one of the principal apothecaries think of assuming the responsibility of recommending articles of whose composition he is ignorant. The druggists all over the country are alive to the evil, which has grown to such proportions as to seriously threaten the future of legitimate pharmacy. Fortunately, the public has acquired a healthy scepticism with regard to advertisements of panaceas, even when they appear in religious papers and are endorsed by clergymen and members of Congress. How soon will this country attain to the degree of civilisation of Japan, and appoint a Government Commission to examine all patent medicines that are offered for sale, and publish the formula on each packet sold? We do it with guano: why not with cough-syrups?"

Boracic Acid.—At a meeting of the Vienna Medical Society, Professor Rosenthal observed that boracic acid is little soluble in water (one to 26), but that a solution in hot glycerine (one to five) can be kept a long time without any fungus formations taking place. In cases of ammoniacal cystitis, in which balsams and turpentines are useful, but exert a mischievous effect upon the intestinal canal, as do also salicylic and benzoic acids, and in a slighter degree chlorate of potash—boracic acid given in doses of from one to one-and-a-half grammes per diem acts as a mild acid and a good antiseptic, the urine at the end of several days becoming acid and free of bacteria. If two grammes are combined with 100 of water, and some glycerine or syrup of orange-peel is added, the patient will bear this daily dose for weeks, the bladder being washed out also with a two or three per cent. solution of the acid.—*Allgemeine Wiener Medicinische Wochenschrift*, January 15th.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 11th, 1884.

George Johnson, F.R.S., President, in the Chair.

Two interesting papers were communicated. The following are abstracts, with the discussions which ensued:—

Fourth communication on artificial respiration in stillborn Children. Certain minor points. An experimental enquiry.

By Francis Henry Champneys, M.A., M.B. Oxon, F.R.C.P., Assistant Lecturer on Midwifery and Assistant Obstetric Physician to St. George's Hospital.

1. The effect produced by the presence of air in the abdominal viscera on the amount of air capable of being drawn into the lungs by the manipulative methods was tested. A cannula was tied into the navel of a stillborn child so that the abdominal cavity could be distended at will. Moderate or even extreme distension of the abdomen produced no effect on the amount of air inspired.

Conclusion.—The presence of air in the abdomen (*e.g.*, in the stomach and intestines) in no way impedes the ventilation of the lungs by artificial respiration. N.B.—Its effect on natural respiration is another matter.

2. Certain methods of preventing the entrance of air into the stomach in mouth-to-mouth inflation were then tested: (*a.*) by pressing the cricoid cartilage against the spine; (*b.*) by strongly bending the head back.

Conclusion.—Both methods are powerless to prevent the entrance of air into the stomach while allowing it to enter the lungs (in infants).

3. The condition of the upper air-passages (as to patency) when the head was strongly bent back was tested by a sagittal section of a stillborn child frozen in this attitude.

Conclusion.—The soft palate lay against the back of the tongue over a large extent. This attitude, therefore, cannot be trusted to secure patency of the upper air-passages.

The great difficulty is probably lower down; it is suggested to leave a catheter in the trachea during artificial respiration, which will serve for the escape of mucus as well as for securing the patency of the air-passages. It may be secured by an elastic band at the proper length (three and a half inches from the lips).

4. An improved method of removing mucus from the air-passages is given.

5. The signs of returning life in a deeply asphyxiated child are given from a careful observation.

Dr. Matthews Duncan said that he had noticed an improved colour, with a fuller and more rapid pulse, take place before any respiration occurred. He then enquired whether Dr. Champneys had observed a double form of respiration in these cases—first a violent spasmodic breathing, "the asphyxia breathing;" then, shortly afterwards, the ordinary rhythmical, and how these two forms alternated for a while, before the ordinary form of breathing was fully established. The use of a catheter, he said, was very old, but it appeared to have been given up; why, he could not say; among students, it probably was inefficient, on account of being passed into the œsophagus instead of the larynx. He should not have thought that repletion of the abdomen would have been found to exercise so little effect on the amount of air inspired. In pregnant women, as was well known, there was no interference with the respiratory function, but in them what the chest lost in one direction it gained in another.

Dr. Bowles said that when the Marshall-Hall method was first introduced, great expectations were formed of it. He had had two opportunities of examining fœtuses in which the method had proved quite insufficient, and he had since thought that the reason for this was to be found in the fœtal tissues themselves; they were very soft and flabby—not unlike wet paper—the ribs had no elasticity, and hence could not do the share of work that was expected of them, and on which the plan depended. Then there was no pharyngeal cavity, and he had been interested in learning how Dr. Champneys got over the difficulties which this fact entailed. In his own opinion, he thought that respiration in such cases could only be brought about by some reflex action, and he agreed with Dr. Duncan as to the changes in appearance in the infant which preceded actual respiratory effort. The heart might beat well and for many minutes without any respiration. In the Marshall-Hall method, pressure on the chest was further useful by assisting the circulation of the blood through the cavities of the heart.

Dr. Powell thought that the manometer was only useful in a qualitative sense, and in no way as a quantitative measurement of the inspired air in such experiments; the lung being completely collapsed and airless, its natural elasticity never came into play. He doubted whether the breathing

of a pregnant woman were comparable with the abdomen artificially distended with air.

Dr. SYLVESTER remarked that in all forms of artificial respiration, the difficulties lay in making *a start*. Dr. Champneys' idea that the difficulties lay in the upper air-passages was, in his opinion, disproved by the fact that even after all impediments had been removed, there were cases in which it was impossible to do artificial respiration. He questioned the possibility of reflex action in dead bodies.

Dr. CHAMPNEYS briefly replied. He had noticed the acceleration of pulse, and the double breathing referred to by Dr. Duncan. The use of the catheter was very old, he knew; yet its permanent retention in the larynx during the whole period of artificial respiration was not as much insisted upon as it ought to be. In the case of profound asphyxia pressure on the chest could do no good, for it was impossible to get more than negative pressure.

On the Value of Systematic Examination of Stillborn Children.

By J. B. SUTTON, Lecturer on Comparative Anatomy at the Middlesex Hospital School of Medicine.

The object of the paper is to show that much valuable information may be gained by the systematic examination of stillborn children, as illustrated by a few selected cases possessing more than ordinary interest.

The first case is an instance of recent endocarditis occurring in an eight months' fœtus. The pulmonary and aortic valves showed soft recent vegetations, and one curtain of the mitral valve was exceedingly puckered. There was general anasarca, and the pleural, pericardial and peritonæal cavities were distended with fluid. Mother healthy, no rheumatism, &c. "Is the case an instance of disease attacking the fœtus independently of the mother?"

The second example is a case of complete stricture of the duodenum above the entrance of the common bile duct; the specimen is described at full length, and observations are recorded to show that stricture, met with in fœtuses at this spot, are not due, as is supposed by certain authors, to hypertrophied valvulæ conniventes, for these foldings of the mucous membrane "do not arise until just before birth."

The third specimen is that of a fœtus with lateral curvature of the spine, and arrested development of the upper limbs. Other cases are quoted, and the question occurs as to the relation (if any) between congenital curvature of the spine, and arrested development of the upper limbs.

One example of single kidney, and two cases of cystic diseases of these organs are described; one of the cases showed conclusive evidence of peritonitis resulting in adhesions between the kidney and testicle, preventing the descent of that organ.

A fœtus with congenital deficiency of one half of the diaphragm is among the cases of interest. The left lobe of the liver passed into the pleural cavity, the lung of that side being in a very rudimentary condition.

A sphenoid bone removed from an immature fœtus exhibited a deficiency of the floor of the pituitary fossa, so as to allow of meningocele in this situation bulging into the pharynx.

In addition, a new explanation is offered of the occurrence of meningocele and encephalocele in the occipital region of the skull. From the third to the end of the fourth month, sometimes even well into the fifth month of intra-uterine life, there exists a "membranous space," which extends from the foramen magnum well up to, and at the third month even into, the point of confluence of the four centres of the squamo-occipital bone. At the fourth month this "temporary occipital fontanella" begins to suffer obliteration through the growth of a bony spiculum, which extends from the squamo-occipital bone gradually downwards to the foramen magnum.

The following is urged as a more satisfactory explanation of the occurrence of meningoceles in this situation than that previously offered: "through this temporary fontanella hernia of the membranes of the brain probably occurs very early in intra-uterine life."

In conclusion, it is urged that without doubt much information may be obtained concerning hereditary diseases, if the bodies of stillborn children be *systematically* examined.

The PRESIDENT remarked on the interesting nature of the communication, and on the great value which such observations possessed. As regarded the heart affections, he had been struck with the rarity of endocardial lesions, on the right side of the normal heart, while in cases of malformed heart, such lesions were equally common on the two sides.

Mr. LOCKWOOD thought the subjects discussed in the paper divided themselves into two classes of cases: the first being arrests of development, the other being pathological conditions. He had met with many cases of intra-uterine peritonitis: this condition was doubtless often concerned in undescended testis. The descent of the testis had an intimate relation with descent of the colon; and absence of the colon from the right loin was often associated with undescended testis, and was, he thought, due to intra-uterine disease. He referred also to cases of obliteration of the descending aorta, a curious and unexplained condition, but which was not necessarily a fatal condition. If we were to draw any practical conclusions from such observations, it would be necessary to know something about the family history of the fœtuses examined.

Mr. SHATTOCK considered the presence of the occipital fontanelle, to which attention had been directed by Mr. Sutton, as having an undoubted bearing on the occurrence of occipital meningocele; it had, by Harvey, been termed the anonymous fontanelle. But, he thought, there was another element determining the seat of meningocele generally, cerebral or spinal; and it was the mode of ossification. Such protrusions occurred between the parts of a bone, or between bones formed in cartilage, or between such and a membrane-formed bone. In the case of the occipital, the deficiency extended between the lower halves of the squama, which are formed in cartilage, and was limited by the seat of the protuberance. In fact, in the case of cartilage formed bones the ossification was limited to the cartilage-basis, and separation of the parts was effected without any corresponding increased bone-formation; hence a gap resulted, as in the occipital deficiency and in the neural arches in spina bifida. In the case of membrane-formed bones no such precise limitation occurred; and if the protrusion occurred, say through the anterior fontanelle, the ossification extended in the wall of the protrusion, and a deformed skull resulted, comparable to those produced by artificial pressure. With regard to the specimen of absence of one kidney, it needed to be determined whether the organ was from the first wanting, or whether it atrophied and disappeared owing to some pathological lesion. He knew of a specimen of a fœtus at full term in which the left kidney was a flattened mass no larger than the little finger-nail, and this might evidence a link in the case of complete absence.

Dr. O'CONNOR thought the valvular lesion might be syphilitic, just as well as rheumatic.

Mr. SUTTON replied: the absence of any syphilitic lesions in the other children, he thought, excluded syphilis as a cause in the case referred to. Mr. Shattock's observations were important, and would receive consideration. Mr. Lockwood's criticism was just, but he thought his former observations confirmed, rather than otherwise, the value of examining all fœtuses.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The Lord Mayor, supported by Lord Shaftesbury, the Dean of Llandaff, Cardinal Manning, Mr. John Marshall, and others, will preside on Friday, the 21st, at a meeting at the Mansion House in aid of the completing the rebuilding of the above hospital.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, FEBRUARY 15TH, 1884.

Dr. DUDFIELD, President, in the Chair.

The Examination of Water for Sanitary Purposes.

A PAPER on this subject, of considerable length, was read by C. CASSAL, F.I.C., F.C.S., and B. A. WHITELEGGE, M.D., B.Sc. The authors, after alluding to the fresh interest attaching to the subject, in consequence of the suggestion of entirely new methods of examination, founded on the detection and cultivation of organisms, said that the aim of the analyst was to determine the presence or absence of impurities, and the nature and quantity of those present in the particular sample, and then from these facts to form an opinion, so far as this was possible, as to the wholesomeness or otherwise of the water supply. The old plan of exactly estimating the several mineral constituents of the residue was for sanitary purposes quite useless. The organic was the matter of greatest moment to the sanitarian, but its exact determination presented great difficulties. The various methods proposed were all referable to one of two classes, viz., those which aimed at its estimation in the water itself, and those which did so in the residue. Confirmatory evidence was afforded by the presence of nitrates derived from the oxidation of nitrogenous organic matter, by the presence of chlorides, which invariably accompanying animal pollution, nearly always indicated the presence of sewage, by microscopical examination too frequently neglected, by colour, &c.

Of the processes employed for determining the organic matter in the water itself, two were in general use, viz., the *Oxygen or Permanganate Process*, which aimed at a measurement of the amount of pollution by the rapidity and extent of the decomposition of a weak solution of permanganate of potash, acting on the oxidisable matter present, and the *Wanklyn Process*, which made the amount of ammonia evolved, on boiling with a strongly alkaline solution of permanganate of potash, a measure of the quantity of nitrogenised organic matter. The chief process dealing with the dry residue was that of Frankland and Armstrong, in which the nitrogen and carbonic acid, evolved in its combustion with cupreous oxide, were taken as the measure of the nitrogen and carbon contained in the organic matter.

The oxygen process, as originally devised by Forchhammer, was far from trustworthy, though as now improved it afforded valuable confirmatory evidence. But the authors decided to confine their attention to the two processes: Wanklyn's and Frankland's—of which the former was certainly the more popular—and which were very generally looked on as rival and antagonistic. But the truth was, as Dr. Cornelius Fox had shown by comparing a hundred analyses, that in skilful hands the results were practically identical.

Certain objections had been raised against each. It had been asserted that the long process of evaporation with sulphurous acid, probably involved the loss or destruction of some of the organic matters, especially of the more volatile, which had been on purely hypothetical grounds held to be the most dangerous. It could not be denied that such loss might occur, but its amount was quite unimportant, and there was no proof whatever of its specially dangerous character. Again, it had been alleged that the errors of experiment might exceed the total amount of organic carbon or nitrogen present, and that an excess of nitrates altogether vitiated the result. This was an unfairly exaggerated estimate of the difficulties attending the process, although the liability to error was certainly greater than in similar procedures. Against Wanklyn's method it had been asserted that the whole of the nitrogen was not converted into ammonia, and that the quantity obtained was affected by the concentration of the water, and the rapidity of boiling. But Mr. Wanklyn had all along insisted on the fact that only a part, though a nearly constant proportion, of the organic was thus converted, and protested against the practice of those analysts who returned it as representing the "organic nitrogen" present. Any opinion as to the character of a water, based on an estimation of the organic nitrogen and carbon, or of the free and "albuminoid" ammonia only, to the neglect of the chlorides, nitrates, microscopical examination, &c., was, the authors repeated, utterly worthless. The estimation of the nitrates should never be omitted, though it was possible that Dr. Frankland attached an exaggerated importance to them.

But the value of water analysis generally had of late been called in question, Dr. Buchanan, for example, having stated his belief that "we must go beyond the laboratory for evidence of any drinking water being free from dangerous organic pollution," and that "the chemist can tell us of impurity and hazard, but not of purity and safety." It had been alleged that where the absolute and relative amounts of impurity had been previously known, both Frankland's and Wanklyn's processes had given results very far from the truth, and by some that cultivation methods were destined to supersede chemical analyses, and that in short, as Dr. Angus Smith puts it, "water analysts must be prepared for a new order of things." As regards the first of these objections, it was perfectly true that there was a limit to the quantity of organic matter that analysis could detect, and it could not distinguish between living and dead matter, or between noxious and harmless, specific and non-specific organisms. A minute quantity of enteric stools would be more dangerous than a large amount of healthy ones, just because they were enteric, and the chemist could only state the actual quantity. But he could tell us that the water was polluted and where non-specific pollution was present, specific might be so too, and even if it were not, putrefaction might render the "innocent" pollution dangerous. Dilute sewage might be under circumstances drunk with impunity, but it could never be considered safe or desirable. That a quantity of a specific poison too small to be detected by analysis might exert its pathological effects could be denied, and in these rare cases it was much to be desired that we could "go beyond the laboratory" and perform a physiological experiment, but as a matter of fact such specific organisms were rarely ever if present without a large amount of other organic pollutions.

The only well-authenticated instance of this kind, but one which had been eagerly seized on as if of probably frequent occurrence, was that of the well at Caterham, where a man suffering from enteric fever had been at work, and in which he confessed to having defecated. The circumstances were ably investigated by Dr. Thorne-Thorne, who traced beyond question to the mingling of the water from this well with the general supply 200 cases of enteric fever which occurred within a fortnight of one another. But conclusions of an utterly unjustifiable nature had been drawn from it, and might be found stated in the report of the medical officer of the Local Government Board for 1881–1882, as that the excreta of this man were uniformly distributed through the 1,861,000 gallons of water pumped from this well during the fortnight, and that, even on the absurd assumption that the man evacuated nineteen pounds of fæces daily for the fortnight, there would consequently have been but one grain per gallon of enteric stools in the water in question, a quantity which Dr. Cory found by experiment would yield only 0·014 parts per million of albuminoid ammonia, and be insufficient to remove the water from the class of "extraordinary purity." It was far more reasonable to suppose, in the absence of any analyses of the samples of water that did actually communicate the disease, that the solid fæcal matters were not thus equally distributed, and that the water which propagated the fever would have been found to contain much more than a grain in a gallon. Dr. Cory, from a series of carefully conducted analyses of the Lambeth water, to which he added known quantities of egg albumen, healthy or enteric stools, came to the conclusion that when the polluting matters were of the same kind, and not in great amount, Wanklyn's process gave very fair indications of the proportion of the polluent present in each case, but that it failed to show the relative proportions when the quantities of the same matter were very large, or when the organic matters were of divers kinds, some yielding a far larger proportion of albuminoid ammonia than others, the difference depending on the chemical composition of the polluent, and on the relative proportion of

soluble and insoluble constituents, and Dr. Cory considered Wanklyn's classification of waters, founded on their yield of albuminoid ammonia, as highly unsatisfactory.

As to Dr. Frankland's process, Dr. Cory considered that it more fairly achieved all it professed to do. But some of Dr. Cory's analyses seemed so much at variance with the generally received opinions as to the merits of water analyses, with the almost exact agreement of the results obtained by Wanklyn's process in the hands of different chemists, operating on the same water, with Wanklyn's own experiments, and also with Dr. Cornelius Fox's comparisons of Frankland's and Wanklyn's processes, that the authors were inclined to believe that the discrepancies must have been due to the neglect of certain precautions, as those ensuring uniformity of composition in the polluent, and its uniform distribution through the water, the accurate standardising of the reagents, &c. Mr. Cassal and Dr. Whitelegge accordingly instituted a course of experiments on waters containing known quantities of various polluting matters. In all such enquiries it must be borne in mind that such pollutions as enteric stools were composed of solid matter, that only a part of this was nitrogenised, and only a part of the nitrogen might come off as ammonia. The albuminoid ammonia was not an absolute measure of the bulk or weight either of the polluent or of the solid matter in it, or of its properties whether dangerous or not, or of the absolute amount of nitrogenised matter, or of the nitrogen in organic combination (which Frankland's process does profess to show), but the authors ventured to maintain that it did present a constant proportion for varying quantities of the same polluent, and that under all ordinary conditions the limit of 0·15 parts per million of albuminoid ammonia, based on a long series of experiments, might be considered a safe one, other circumstances being taken into account, while anything approaching this proportion was enough to arouse suspicion. As to its inability to measure the differences between high degrees of pollution, it was obviously unfair to expect a process capable of distinguishing between one and two parts to do so with equal accuracy between 52 and 53, and an error of one part, which in the one case would be 50 per cent., would in the other be only two per cent.

As to Dr. Cory's experiments on water to which fæcal matters had been added, it appeared that he did not always determine the proportion of dry solids or of soluble to insoluble substances. Again, it was manifestly unsafe to assume a uniform composition in every part, even of the same stool; and when the water had been allowed to stand, and the suspended matter to subside, one had no guarantee that the pollution was equally diffused throughout the supernatant and comparatively clear fluid. Such experiments were always open to doubt, though they were important from the frequency and gravity of fæcal pollution. Next as to urea, Wanklyn had shown that, being a fully oxidised, i.e., not an oxidisable organic body, it did not yield "albuminoid ammonia," though, if allowed to decompose and undergo transformation into ammonium carbonate (and in practice this change was always far advanced), it appeared as free ammonia, but meanwhile it would be vain to look for uniform results. In one experiment Dr. Cory spoke of urea having passed into some form yielding albuminoid but not free ammonia, a conclusion which must be erroneous.

Experiments with egg albumen were not so liable to error, though after a time the solution tended to become opalescent and unequal, however carefully mixed and filtered at first. The authors also found egg albumen prone to cling to the sides of the flask in the act of coagulation, still their results, as well as Dr. Cory's, never showed any material error. They believed, however, that the natural organic pollutions were better and more accurately determinable than artificial ones, for they had always found that in operations on equal quantities of the same water, they had obtained like results in successive experiments, and proportional results when using different quantities, all other conditions being the same. The serious discrepancies in some of Dr. Cory's experiments must, they thought, have been brought about by his having used quantities of polluent widely differing from what occurred in ordinary waters, and also from his using a water already impure as a diluent.

Whatever future might be in store for cultivation processes, the authors did not think that they afforded at present any information that could not be as well obtained more easily.

Dr. Cory, while preferring on the whole Frankland's process as performing nearly all it professed, made an exception as regards urea, for since 3·094 grains per gallon gave no increment of the total solids in Trafalgar-square water, it must have been decomposed and dissipated during the evaporation. It had, therefore, the authors thought, no advantage over that of Wanklyn's, which, if properly worked and accompanied by the other estimations to which they had referred, gave quite as good a distinction between animal and vegetable impurities, while there could be but one opinion as to the greater manipulative skill required by Frankland's and the liability of its results to error in inexperienced hands.

Dr. THURSFIELD remarked that though the name of Mr. Wanklyn was generally associated with the albuminoid ammonia process, he knew that Mr. Wanklyn attached at least as much weight to the so-called moist combustion method. He had himself performed, perhaps, more water analyses, which had been the bases of legal proceedings, than any man, and he considered Wanklyn's processes quite accurate enough for their purpose; but he maintained that the evidence of analyses might condemn a harmless water and permit the use of one highly dangerous from specific polution, and he denied that the Caterham case was by any means an isolated one, several having come under his personal notice in which waters, pronounced on chemical grounds to be pure, had been proved by statistical enquiry and by their physiological effects to have been the means of spreading disease, and even the fact and manner of their contamination had been discovered.

Dr. T. STEVENSON expressed himself doubtful as to the value of microscopic examinations, and especially called attention to the fact that the "sewer fungus," so-called, although an alga, not a fungus, was constantly found in thermal springs.

Mr. WYNTER BLYTH considered that the authors of the paper laid too much stress on single factors, and called the attention of the members to the numerical scheme for estimating the value of any given water, provisionally authorised by the Society of Public Analysts. He had not succeeded in repeating Koch's methods, and preferred sterilised broths to gelatine. He had frequently observed the development of the sewage fungus in waters kept for 24–48 hours in an incubator; it sometimes appeared in such as were considered pure on other grounds, but always in the impure and in those to which a little sugar had been added. He demurred to any conclusions being drawn from Dr. Cory's experiments on the clear fluid from a fæcal infusion on account of the very unequal distribution of bacterial clouds in a liquid.

Dr. TRIPE objected to judgments on waters being based on chemical analyses alone, since these failed to give any idea of the condition in which the organic matter exists, a fact of far greater importance than its quantity, and referred to his report of an outbreak of diarrhœa, &c., of a severe character attacking all, whether residents or visitors, who drank the water of a particular main at Stamford Hill without boiling, and no others. The water was analysed and pronounced pure by Mr. Wigner, but a quantity of a peculiar mycelium was found in the main. He protested against the low value attached to the microscopical examination in the scheme alluded to, though living organisms merely indicated the presence of organic matter on which to feed, and need not be themselves injurious. He was much surprised at Dr. Buchanan's assumption, that the enteric stools were uniformly distributed through the whole of the water supplied by the well at Caterham during the entire period of the outbreak, believing that it was more probably confined to that distributed on the first day, perhaps even the first few hours only.

Mr. CASSAL and Dr. WHITELEGGE replied to several criticisms, the latter remarking that though the microscope could not as yet distinguish the various kinds of bacilli, it might frequently, by revealing fragments of tissues, point to the nature and source of pollution.

THE WEST LONDON MEDICAL CHIRURGICAL SOCIETY.

FRIDAY, FEBRUARY 1ST, 1884.

DR. THUDICHUM, President, in the Chair.

Amputation through the Joints of the Lower Extremity.

MR. KEETLEY showed cases of amputation through the knee-joint, of Pirogoff and of Hey's amputation; and he also showed (by permission) the patient in whom the late Mr. Shuter had disarticulated at the hip, sub-periosteally. Mr. Keetley contrasted the chief arguments for and against amputating through the joints of the lower extremity. When a distal segment of bone was left, *e.g.*, in Pirogoff's and in Gritti's amputations, he strongly urged that it should be wired to the proximal bone; and he showed that, otherwise, it usually became retracted and a source of tenderness in the stump.

Mr. LUNN dwelt upon the necessity of leaving the periosteum in all cases.

Mr. THOMPSON spoke in favour of the Beaufort limbs, especially as regards their light weight.

Mr. BENTON asked Mr. Keetley if it was his custom to save the patella when amputating at the knee-joint; and also asked his opinion as to which was better: to make a long anterior flap and short posterior flap, or *vice versâ*; remarking that he himself had found that the long anterior flap was often attended with much sloughing.

Dr. THUDICHUM enquired Mr. Keetley's opinion as to the exact fate of the cartilage in the case of a successful amputation of the knee-joint, and remarked upon the advantages of wiring the stump, as it afterwards became the more serviceable.

In reply, Mr. KEETLEY said that he thought the artificial limbs lately exhibited by Mr. Thompson, viz., the Beaufort artificial limbs, might be well adjusted to a patient whose hip had been disarticulated, if only it were, made to take a firm hold of the pelvis. An artificial limb for an amputation at or near the hip, should make use of the pelvis, exactly as an artificial leg, for an amputation at or near the knee, used the thigh. With regard to saving the patella, he was opposed to it unless a Gritti's amputation was done, and the freshened surface of the patella applied to the sawn surface of the condyles. He believed the changes in the cartilage, after a successful disarticulation, were identical with those which occurred in cases of unreduced dislocation.

General Paralysis of the Insane—A doubtful Case.

Dr. J. ALLDEN OWLES reported on the progress of a case brought before this Society in April last, by Dr. Drewitt, who showed it as a case of "General Paralysis of the Insane;" but at the meeting, Dr. Forbes Winslow and others thought it a case of simple aphasia, which would probably pass off in about six months. The patient shortly showed signs of improvement both in walking and speaking, and obtained a position as butler. Six months later he was seen by Dr. Owles who found him getting much weaker, apparently from over-exertion, though in walking and speaking he had improved, and there were no symptoms specially characteristic of "General Paralysis of the Insane." On some points his memory did not seem quite correct, but the confusion was not more than is general in those who had impaired their brains by the abuse of alcohol and other excesses. He was then for some time an out-patient at the National Hospital for the Paralysed and Epileptic, where he was under Dr. Ferrier, who reported that he found the symptoms to be those of general paralysis, very general tremulousness, defective articulation, and unequal pupils, but without any very well marked mental symptoms. The treatment was bichloride of mercury with perchloride of iron. The patient then went to St. George's Hospital, where basic pneumonia first showed itself, and in three days he died. The doctors at that hospital reported that they saw no symptoms of aphasia or signs of paralysis. No *post mortem* was allowed, but Dr. Owles thought the following conclusions probable:—

1. It was not a case of general paralysis of the insane. There was an absence of the most prominent characteristics of that disease, and the progress of the case would negative it.
2. If it was a case of aphasia, the aphasic symptoms, as Dr. Forbes Winslow expected, had almost disappeared in six months.
3. Though there was no proof of syphilis, there was evidence of alcoholism, and it seemed likely that this was the predisposing cause, both of the symptoms of paralysis and of the double pneumonia, from which he died.

Dr. THUDICHUM considered that, except in cases with syphilitic history, the use of mercury was disadvantageous, owing to its tendency to accumulate in the tissues.

Dr. DREWITT admitted he had great doubts as to the exact diagnosis when he first saw the case, still he did not think it necessary to have distinct mental symptoms, as that depended greatly on the situation of the disease.

Dr. BENNETT spoke of a case of alcoholism, the symptoms of which simulated those of general paralysis of the insane, and which got well under treatment.

Dr. OWLES then replied.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, FEBRUARY 28TH, 1884.

The Effects of the Present System of Education upon the Health of the Community.

DR. HOWIE, who opened an interesting discussion on this subject, maintained, in an introductory paper, that no sustained and severe physical or mental work should be performed under twenty years of age. Hard work of any kind before twenty years of age shortened materially the time during which such work could be carried on. With children under twelve years of age, sleep should occupy twelve hours out of the twenty-four; meals, &c., four hours; physical exercise, four; and mental work, four. When he (Dr. Howie) entered College, he consulted Prof. Blackie as to the daily number of hours it was necessary to give to study. Two only were recommended; but Dr. Howie gave six, with the result that afterwards he was not able to open a book for years. He charged the School Board with cramming the children instead of educating them; with overloading the memory instead of training the reason; with trying to force into the minds of young children knowledge that could not be understood until they were older; and with thus causing that mental worry which more than anything irritated and weakened brain-tissue. It was said that 90 per cent. passed the examinations, but that only showed the amount of pressure that must have been brought to bear upon them. It was said that no visible signs of ill-health were to be seen amongst the children in the schools; but this was said by those who only "looked in" and saw the excited and curious faces of the children intent upon the visitor. It was said that very few break down, but medical men would say otherwise. He attributed two cases of tubercular meningitis to the worry of school life, and gave several examples where rapid improvement in health resulted from the giving up of study by children who were fond of school. After referring to the rapid increase of diseases of the nervous system within the last 30 years, Dr. Howie recommended—(1) the abolition of payment by results; (2) the improvement of the teachers, and the giving to them of larger discretionary powers; (3) the extension of the hours of play to three half hours daily, under supervision and in suitable playgrounds; (4) the entire exclusion of arithmetic from the standards. Quality, not quantity, ought to be the principle of education.

Dr. RAWDON was convinced, from his experience at the Children's Infirmary, that headache, depression and anæmia were on the increase amongst children, and were directly attributable to over-work in schools. Under twelve years of age, home lessons ought to be abolished. Some teachers said the children got on better without home lessons. He instanced two schools, one at the top of a hill where no home lessons were required to be learned, and another in a valley where home lessons were given, and the former far outstripped the latter in its results.

Dr. WILLIAMS showed how unfavourable were the homes of many School-Board children for the preparation of home lessons, these gutter children were, moreover, insufficiently fed, and although they had an apparent smartness, they were not nearly as intelligent as better fed and better cared-for children.

Dr. ALEXANDER would not ascribe the increase of nervous disease, such as epilepsy, to over-work in schools. In his experience the increase was due to hereditary transmission from their parents, whom he often found to be (one or the other) but one degree removed from the position of their afflicted children. Over-work, however, aggravated the growing tendency to these diseases. He gave an instance where the health of a School-Board child broke down (whether from over-work or from other causes he could not say); rest was absolutely needful, but it was near an examination when prizes and promotion were within reach of the child, when some relief from the expense of education was possible for the parent, and emoluments were in store for the teacher should the scholar pass the examination. In spite of remonstrance the child continued to work until it could not get out of bed, and was now probably "lamed for life." In this way the School-Board system had become an educational Juggernaut, that crushed the feeble or fainting, and so pressed on the strong that even they with difficulty escaped. The examining inspectors were often very injudicious and pressed the little ones with questions so framed as not to be easily understood. Gutter children had a special smartness, but it was smartness that often led to prison than to other forms of prominence.

Dr. ARCHER described the effects of badly constructed school-rooms on the production of myopia, and quoted the statistics of Greenwich Naval Hospital, where five and a half per cent. became myopic during three years sojourn in that school. Female pupil-teachers were especially hard pressed, and at a period of life particularly unfavourable for hard work.

Dr. HOPE considered that those educated at Eton and Harrow were much harder pressed than School-Board children. When the latter could not pass the standards, the teachers got the results just the same.

Mr. DANVER HARRISON cited a case of epilepsy under his care, where brain work brought on the attacks. During rest and a sea-voyage they completely ceased.

Dr. H. GREVES had been studying the causation of chorea, and he was convinced that hard school work, and especially the fear that the pupils entertained of the consequences of getting behind, were causes of that disease. He always prohibited lessons in such cases.

Dr. CATON thought the present system of education was a great advance upon the old state of things; but when Englishmen took up anything they generally went wrong at first. In Scotland, where there had been a general system of education for centuries, the physique was still good, and disease less prevalent than formerly. In Germany a very stringent system of education was in force, and yet he had not heard of the evils described by previous speakers. That nation instead had men prominent in every scientific and literary pursuit. In some schools the children lived in a constant state of fear, and their minds were consequently confused. The system of pupil-teachers was a great defect of the School-Board system. These teachers were very much over-worked, resulting in headaches and irritability, which peculiarly interfered with their usefulness as teachers.

Mr. EDGAR A. BROWNE thought the evidence to be brought forward by the medical men must be such as to convince the public and the teachers. The latter, like all literary men, demanded an increase in the death-rate before they could be convinced. They were not observant, and could not see the bad effects of cramming that were so apparent to every unprejudiced scientific observer. The evil tendency of forcing facts into children during a whole year, and then allowing an intellectual vomit, was so plain that we had not to wait for mortality statistics to prove it. Sun-light, fresh air, and exercise were the three things necessary to promote the growth of the children. At the present time these were only obtained in summer or on holidays. A school girl, the subject of myopia, consulted him a few days ago. Her daily work was as follows:—Rise at 7 o'clock; study 7.30–8 o'clock. Breakfast. Study from 9 to 1 o'clock. At 1.20 dinner. Study from 2 to 3.45. Tea, and "practice" till 6.30 o'clock. Study from 6.30 to 8.30. Prayers, bed at 9 o'clock. The only walk was to church every Sunday; and this was at a fashionable school. After a struggle with the mother he obtained a three months' holiday for the child. He recommended the Greek system of education, where a half-holiday was given every day, and was used in the pursuit of physical exercise.

A committee was appointed, consisting of Drs. Caton, Carter, Davidson, Gee, Greves, Howie and Rawdon, and Messrs. Browne, Hulke, and Paul, to investigate the subject and report upon it to a future meeting.

OBITUARY.

CHARLES GREIG, F.R.C.S. Edin.

THE subject of this memoir was born in Kent in 1816. His medical studies were pursued partly at the Bristol Royal Infirmary, and partly at St. George's Hospital. Shortly after obtaining his diploma he became house surgeon to the Bristol Royal Infirmary, a post which he held and filled in a most exemplary manner for six years. He then settled down in Clifton, and soon had a large and high-class practice there and in Bristol. Failing to obtain a vacant surgeoncy at the Infirmary, he did not offer himself for it again, but all through his career he devoted a considerable portion of his time to giving gratuitous advice to the poor. Of a benevolent and charitable disposition, but careful to avoid all ostentation, Mr. Greig has left a large circle of friends to mourn his loss. He had been out of health for a year, but it was only since Christmas that his illness had been thought to be serious. He died on February 27th.

GENERAL CORRESPONDENCE.

TONSILLITIS AND TONSILLOTOMY.

[To the Editor of the Medical Times.]

SIR,—I have been much interested and instructed by the "Clinical Papers" lately appearing in your journal, but I trust you will allow me to express my dissent from the latest contribution on "Chronic Tonsillitis and Tonsillotomy."

I will not trespass on your space by dealing categorically with all the points raised in the article, but shall merely touch on what seem to me the more important errors of the writer. "B." is evidently possessed with the idea that tonsils grow "again and again," after removal. I can only say that this view, which is stated three times in the short space of two columns, is entirely opposed to my own experience. Among the many hundreds of cases in which I have operated, I know of only two in which there was any sign of subsequent enlargement. As we are generally reminded of *un*successful cases, I am sure that if any considerable proportion of my operations had not turned out well, I should have heard at least of some of them.

In one of the two instances to which I have alluded, I believe that I performed the operation incompletely, or perhaps I should say insufficiently, whilst in the other a severe attack of inflammation (occurring long after the tonsils had been removed) left a little enlargement behind it. I have, however, seen many children a few weeks after they had been operated on by surgeons of the highest position, but whose experience on this particular point had been comparatively limited, in whom it was obvious that not nearly enough of the gland had been taken away. In these cases the patients' parents have usually told me that "the tonsils had grown again." I have also occasionally seen my pupils excise tonsils in such a way that it would be easy for any one afterwards to think that the "tendency to hypertrophy" had manifested itself anew. I venture to think that if tonsils were really endowed with the hydra-

like property which "B." attributes to them, I could not have failed to have met with some examples of it. My experience, however, is entirely favourable to tonsillotomy. The great benefit received by one child of a family has over and over again induced the parents to bring their other children to be operated on, as they have successively been attacked. Space will not permit me to detail the enormous permanent benefit I have seen following the operation, nor the prejudicial and even fatal results which I have known ensue from the enlarged glands being allowed to remain in the throat.

"B." seems to think that tonsillotomy is often performed on account of "chronic and fluctuating enlargement," a condition which he considers as diathetic and, therefore, unsuitable for operation. I will not here go into the question of diathesis, but if repeated attacks of painful inflammation can be prevented by a single operation, there appears to me to be the strongest reason for its performance. The writer of the article is under the impression that "in a very large proportion of cases" of enlarged tonsils, neither respiration nor deglutition is at all interfered with, and there is merely some unimportant tumefaction of the glands. That is to say, in a very large proportion of cases of enlarged tonsils, the swelling is slight, and no operation is called for. This may be quite true, but it does not touch the question of the usefulness of tonsillotomy where the hypertrophy is considerable. Of course if "B." can prove that the operation is generally performed in unsuitable cases, he has a strong position; but it appears to me strange that a single practitioner should have sufficient grounds for making such a statement. The rule which I have always laid down for the guidance of my class in the treatment of persons under twenty years of age is, that the operation should only be done when either the tonsils are *considerably hypertrophied*, or their superficial structure is so diseased as to give rise to frequent attacks of tonsillitis. The expression "considerably hypertrophied," however, as I have always been careful to explain, has a purely relative meaning, as a comparatively slight enlargement in a small pharynx may occasion more inconvenience than a much greater amount of hypertrophy in a large throat. In these cases the safest test is whether the condition interferes with respiration.

My letter is already longer than I could wish, or I should say a few words on the various methods of removing the tonsils. Perhaps on some future occasion you may be willing to allow me to discuss in your columns the relative advantages of tonsillotomy with the guillotine and with the bistoury.

I am Sir, &c.,

MORELL MACKENZIE.

Harley Street, W.
March 11th.

[The experience of a "single practitioner" may appear somewhat valueless when opposed to that of a leading specialist, even though it be gathered from the numerically large practice among out-patients at a special and also at a general hospital. Such as it is, however, it shows only too clearly that there are but few such skilful tonsillotomists as Dr. Mackenzie, since partial removal is the rule and not the exception. Personal experience alone has amply sufficed to show that re-growth takes place often with troublesome rapidity, even after somewhat free removal. Without doubt, "if repeated attacks of painful inflammation can be prevented by a single operation," such an operation should not be delayed. To prove, however, that Dr. Mackenzie's teaching upon this point has not spread so widely in the profession as he might desire, it is sufficient to point to the vast number of children who are allowed to go about with large tonsils, exposed to such attacks as he refers to.—B.]

THE EDINBURGH TERCENTENARY.—M. Caro, for the French Academy, and MM. Pasteur and d'Abadie, for the Academy of Sciences, will attend as delegates the *fêtes* at Edinburgh in commemoration of the tercentenary of the foundation of the University of Edinburgh.

CHOLERA.

[To the Editor of the Medical Times.]

SIR,—May I ask you to be so obliging as to publish the following remarks, which I cut out of my observations for the Epidemiological Society, in order to shorten them and also because it was introducing fresh matter, in the discussion of Sir W. G. Hunter's paper, to which, as a visitor, I felt I was not entitled.

"There seems no reason why cholera should not be the outcome of over-crowding, defective ventilation, over-feeding and heat in a low-lying district, any more than that similar conditions should give rise to typhus, plague, and perhaps cerebro-spinal fever, while defective ventilation, filth, and over-crowding are the main causes of typhus and plague; it is known that cholera does not invade famine-stricken districts, nor spread in sandy deserts, yet it does break out among well-fed coolies, and even soldiery, where there is in addition over-crowding and idleness and, let me add, for all these diseases—mental depression from discontent.

"I am not aware that typhus fever has a specific entity,[1] yet it is infectious; nor that a specific germ has been discovered for cholera, yet within certain limits the dejecta are poisonous. Typhus poison mixed with cutaneous and lung matters is readily decomposed, oxidised, and rendered inert. Cholera poison united with intestinal out-pourings is not so rapidly oxidised as the former, owing to the medium through which it is oxidised. This, like typhus, is also carried by fomites.

"An intelligent and practical engineer informed me, he had often been struck with the immunity from disease of men working in sewers, while those on sewer banks often succumbed to disease. The explanation, I venture to think, will be found in the condition of maturity or oxidation in which the poison is presented to the recipient, just as the fatal after-damp in mines, exuded under pressure, presents a trickling stream, which on expansion becomes the fatal gas.

"I cannot think that a case of sporadic cholera would breed in a temperate climate, but that in a warm one it might readily do so under fostering conditions. When such a case occurs the doctor has to consider whether he has to treat a case of poisoning, summer diarrhœa, perforation of bowel, enteritis, or ague. The first three are easily disposed of. Enteritis is common in warm climates. Such a case occurred to me on February 24th, 1872. It was only on the *post-mortem* table that general enteritis—probably from a tænia found—accounted for the symptoms possessing every feature of cholera. The season of the year and absence of any epidemic unhealthiness enabled me to decide against its infectious character, and to allow the poor patient the nursing of his wife in a separate ward.

"I think the evacuations of such a patient, passed into a drinking supply, are capable of initiating similar symptoms in warm climates, and if meteorological conditions favour endemic and epidemic cholera. Some people cannot live on certain soils without contracting illness. Disease also thrives better on some soils than others. Hence poisonous germs introduced into a country may thrive, or find soil-antagonism and die."

Cholera may begin as ague, and I confess to the difficulty of diagnosis in the first cases of an epidemic.

I remain, Sir,

Yours truly,

Preston,
March 10th, 1884.

CHARLES MOORE JESSOP.

[1] Unless the micro-organisms described by Mr. F. W. Mott and Mr. J. Blore, in *British Medical Journal* of 1st December, 1883, are to be regarded as such.

THE LATE MR. WHEATLEY.—A subscription has been set on foot among the Fellows of the Royal Medical and Chirurgical and other Societies which Mr. Wheatley served in the capacity of Librarian, to increase the slender provision he was able to leave for his sister and niece.

NEW INVENTIONS & IMPROVEMENTS.

THE SHELFANGER TONIC TABLE WATER.

It is gratifying to notice the gradual development of the English mineral waters, to keep pace with the growing demand of the present day. There can be no doubt that they might, before long, if sufficiently made known, fairly distance, in the race of competition, many of the imported, and hence more costly, articles of the same nature. In the Shelfanger Natural Mineral Water, discovered not long ago by a member of the medical profession near Diss, in Norfolk, and now steadily advancing in public estimation, we have a mild alkaline chalybeate water, in which the iron existing (in proportion of three grains to one gallon) in the form of carbonate is combined with such an amount of alkaline and magnesian salts, that its astringent qualities are fairly balanced and neutralised, while its tonic and recuperative powers remain in full exercise. When we add that the Shelfanger water is singularly pure, sparkling, and most palatable and refreshing, and that it is discharged, fresh from the spring, at the rate of 650 gallons per 24 hours, we may easily understand its increasing hold on the market—at the very reasonable price at which it is offered.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

At the ordinary meeting of the Council on Thursday last, the 13th instant, the chief business consisted in authorising the President to apply to the General Medical Council for the sanction of that Council to the scheme for constituting an Examining Board in England, under the provisions of Clause 19, of the Medical Act, 1858, agreed upon by the two Colleges, in the early part of last year, such sanction to be effective only on the Medical Acts Amendment Bill, now before Parliament, *not* becoming law. Mr. Flower's resignation of the office of Curator of the Hunterian Museum was next considered; it was accepted with expressions of sincere regret, and high appreciation of his valuable services to the College during the 22 years he had held office. The question of appointing his successor was referred to the Museum Committee to consider and report upon.

At the Meeting of Fellows and Members of the Royal College of Surgeons, which will be held on 24th of March, 1884, the following alterations in the Charters of the College, adopted by the Council on the 10th of January, 1884, will be reported :—

1. That the Section of the Charter of George IV., which restricts the amount of property in lands or rents to be held by the College to 2,000*l.* be altered so as to provide that such amount be increased to 10,000*l.*

2. That Section 5 of the Charter of the 7th Victoria be altered so as to provide that the conditions of admission to the Fellowship by examination and the arrangements for the examinations for the same, be in future determined by resolutions of the Council, and not by by-laws as required by such section.

3. That in Section 7 of the Charter of the 7th Victoria, the amount of the fee payable for the Fellowship by examination be omitted, leaving such amount to be provided for by by-law.

4. That Sections 15 and 16 of the Charter of the 7th Victoria be altered so as to provide that the mode of election to the Council may be by voting-papers as well as in person, the quorum of Fellows required to be present at the meeting for election being omitted from such sections, it being desirable that, in future, such quorum be determined by by-law instead of by Charter.

5. That in Section 5 of the Charter of the 15th Victoria the words beginning "and the fee," &c., to the end of the section be struck out, it being undesirable that any fee should be paid by Members of twenty years' standing on election to the Fellowship.

6. That Section 17 of the Charter of the 15th Victoria be abrogated, it being inexpedient to continue the examinations for the licence in midwifery of the College.

7. And that Sections 1 and 2 of the Charter of the 23rd Victoria be altered so as to provide that the number of members of the Board of Examiners in Dental Surgery may, if thought desirable by the Council, be increased beyond six, the present number, and that the section of the Board consisting of persons skilled in dental surgery be restricted to dental practitioners duly registered under the Dentists' Act of 1878.

We would especially remind gentlemen who may wish to propose any amendments or alterations that they must hand in such amendments *in writing*, with the names of the proposer and seconder in due form. This is not intended to stifle discussion or to prevent suggestions being made, but rather to secure a formal and business-like consideration of them.

MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE SOCIETY.

Meeting of the Provisional Executive Committee.

A meeting of the Provisional Executive Committee of this Society was held at 38, Wimpole-street, W., on Thursday, March 6th. The following members were present:—Mr. Sibley, Surgeon-Major Evatt (Woolwich), Dr. Clibborn, Mr. Brindley James, Mr. Major Greenwood, jun., Mr. Radley (Secretary), Mr. E. Noble Smith (in the Chair). The minutes of the last meeting were read and passed. The Secretary reported that letters had been received from Mr. J. Bain Sincock (Bridgwater), and Mr. Behrendt (Birmingham), stating their inability to attend. The Secretary presented his report showing that 300 members had joined, and that the receipts amounted to 185*l.* 7*s.* 2*d.* The report was received and adopted. The Chairman stated that a letter had been received from Mr. Ernest Hart, expressing his satisfaction at the progress of the Society, and making suggestions with regard to its further extension, which were unanimously approved. The Secretary recommended, that as it had been decided after consultation with their consulting actuary, Mr. Neison, to accept members for sick-pay only, who were unwilling to join for sick-pay and annuity combined, the two funds be kept distinct, and that separate tables be drawn and printed, showing the rates for sick-pay only. This was duly proposed and carried. A letter was read from Mr. Parsons (Ambleside), asking whether gentlemen retiring from practice, after becoming members of the society, were open to receive the benefits of the society? An answer was directed to be sent in the affirmative. A communication was read from a correspondent, who desired to know if members of the Army and Navy Medical Services, liable to be called out of the country on duty, would be eligible as members of the society. It was decided to reply that the society was at present too young to undertake the risks this would involve. The question of holding a general meeting in London was discussed, and its further consideration was deferred. A discussion, arising out of questions connected with the proposal forms referred to the meeting, brought the proceedings to a close.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 6, 1884 :—

Cusse, Ernest, Great Ormond Street, W.C.
Humphreys, Fras. Rowland, Queen Street, Finsbury, E.C.
Kebbell, Charles, Brunswick Place, Brighton.
Nance, Arthur Stanley, of the Metropolitan Free Hospital, E.

The following gentleman also, on the same day, passed the Primary Professional Examination :—

Stericker, Geo. Frederick, of the Leeds School of Medicine.

King's College Hospital.—At the annual court held on the 28th ultimo, the Secretary read the 45th annual report, which stated that during the year 2,094 in-patients had been admitted, and 21,403 persons had been treated in the out-patient department, besides 6,183 casualties which had been attended to in the surgery of the hospital, and 657 poor married women attended in their confinement. The expenditure of the hospital during the year had amounted to 15 448*l.* 11*s.* 2*d.* The total income of the year, including the proceeds of a very successful festival dinner, amounted to 12,609*l.* 2*s.* 4*d.*, leaving a deficit of 2,859*l.* 8*s.* to be paid out of capital. The legacies which, for the ten years ending 31st December, 1880, averaged nearly 6,000*l.* a-year, amounted during the past year to only 1,377*l.* Referring to the medical school of King's College, the report acknowledged the excellent work done in the hospital wards by the physicians and surgeons forming the entire staff. The committee also recorded their gratitude to the medical officers of every grade for the great services which they had rendered to the hospital, and to the sisters and nurses employed by St. John's House, for their sedulous care of the patients under their charge. The report was unanimously approved.

National Health Society.—The eleventh annual report of the National Health Society, 44, Berners-street, W., shows that the Society has carried on its work during the past year in a most practical manner. Hundreds of lectures on sanitary subjects have been delivered, not only all over the poorer parts of London, but in provincial towns, to large audiences of working men and women, classes of girls, district visitors, and others engaged in work amongst the poor. The Society is much encouraged by the practical results of the lectures on keeping the house healthy; rearing of infants; prevention of the spread of infectious diseases; preparation of food and kindred subjects, knowledge of which is so much needed in our crowded neighbourhoods. The question of poisonous dyes in domestic fabrics; of smoke abatement; of dust collection and the prevention of cholera, have been investigated and reported upon by special committees appointed for the purpose. The Health Exhibition held by the Society last June was commented upon, and the Secretary stated that more than 100 members had joined the Society during the past year.

Physical Education of Girls.—A most interesting demonstration of gymnastics for girls—by the pupils of Miss Chreiman's classes—was given on the 5th inst., at the Town Hall, Kensington, under the auspices of the National Health Society. Lord Brabazon was in the chair, and a very large assemblage of members of the society and their friends were present. Dumb-bell exercises, gymnastic dances, and vocal marches were gone through with great precision and grace by the young athletes. Mr. F. Treves spoke on the importance of such training for growing girls, and Lord Brabazon expressed a wish that it could be extended to School Board children. Dr. Farquharson, M.P., W. Woodall, Esq., M.P., Mr. Noble Smith, and Mr. James Heywood also addressed the meeting; and several letters were read, expressing sympathy with the endeavour to physically educate and develop our growing girls—the future wives and mothers of England.

The St. John Ambulance Association.—The presentation of certificates to the successful students attending the classes of this association, took place recently in Exeter Hall (the Lower Hall). Mr. V. Barrington Kennett, who occupied the chair, said the certificates to be given that evening were to the students of the Young Men's Christian Association connected with Districts Nos. 2 and 3. The prospects of the association were never brighter. Not only were there now 120 districts in England, but there were also classes in India and Australia, and our cousins in America had also formed classes, though they were not connected with the association. They had three distinct classes of work, namely, classes such as the students present had attended, the distribution of ambulances and litters to stations in various places, in crowded towns and in factories, and an admirable system for transporting injured persons to hospitals. There was scarcely a police-station in London in which there was not an ambulance ready to convey an injured person to an hospital, and a policeman who had received the certificate of the association. The instruction had been given on a large scale, 8,000 certificates having been issued last year, making a total of 60,000 which had been issued since the formation of the association. The annual meeting of the Dublin Centre of the St. John's Ambulance Association was held in the Senate Hall, of the Royal University, on Saturday, March 8th. Mr. Francis Robert Davies, Kt., S.J.J., occupied the chair. The report stated that some of the branches of the Dublin Centre had been very active during the past year. During the year full courses of instruction were attended by 617 persons; certificates were obtained by 323, of which 227 were first aid, and 96 nursing. A large number of the metropolitan police had been instructed, and amongst those who received certificates, were one inspector, two sergeants, and 46 constables.

Royal Sea Bathing Infirmary.—An influential meeting was held at the Mansion House on Monday, in support of a special appeal in aid of the Royal Sea Bathing Infirmary at Margate. The Lord Mayor, M.P., presided. The institution now had accommodation for 220 in-patients, and being open all the year round, it received annually from 600 to 700 patients from London and all parts of England. The benevolence of Sir Erasmus Wilson had provided the Infirmary with a new wing of four wards, a swimming-bath, and a chapel, and the drainage and sanitary arrangements were in perfect order. The outlays on the new buildings, and in the enlargement of the old, had diminished the funded property of the charity by between 6,000*l.* and 7,000*l.* The increased annual expenses would require an addition to the income of 2,000*l.* a year. The ordinary expenditure was 8,669*l.* annually, and the ordinary income was but 4,423*l.*, leaving a large deficiency to be supplied by exceptional benevolence.

National Eye and Ear Infirmary, Dublin.—The annual meeting of the directors of this body was held at their rooms, Molesworth Street, on Thursday, March 6th. Mr. Swanzy read the report, which showed that 348 patients were admitted during the year, as compared with 325 in 1882; while the number of days spent in hospital was 8,021, as compared with 6,319 in the previous year. In the Dispensary for Diseases of the Throat, which was established two years ago as an adjunct to the Ear Department, 94 patients have been treated during the year, and of these a large proportion consisted of aural patients, who were found to have throat complications. The total number of visits paid by these patients was 330, with an average daily attendance of 3·2. The balance-sheet showed the subscriptions and donations during the year were 307*l.* 17*s.*; grant from the Hospital Sunday Fund, 91*l.* 4*s.* 5*d.*; from the Corporation, 100*l.*; received from patients, intern, 250*l.* 18*s.* 3*d.*; extern, 97*l.* The treasurer's account stated that the balance in bank at close of year was 21*l.* 2*s.* 11*d.*, but the unpaid accounts exceeded 91*l.* 10*s.*, and the institution was over 70*l.* in debt.

The Dental Hospital of London.—The 26th Annual Meeting of this Institution was held on the 13th inst., under the presidency of Mr. Erichsen. In the report, which was unanimously adopted, the managing committee congratulated the Governors on the continued prosperity of the Institution; 35,622 cases had been treated during the year 1883, a large number of them painlessly (under anæsthetics). Sir Edwin Saunders had made a munificent gift to the charity of the lease for over 90 years of the "Tower House," adjoining the Hospital, valued at 2,400*l.*, for the purpose of its enlargement. A special appeal had been issued for the funds necessary for fitting up and adapting the new wing, and for redeeming the mortgage debt of 5,000*l.* on the hospital building, and the managing committee gratefully acknowledged 1,132*l.* 4*s.* in response.

Volunteer Ambulance Department.—It is announced from the War Office, that volunteers who have gone through a course of instruction in stretcher-drill, and field-dressing, and have passed a satisfactory examination therein, will receive from the Volunteer Ambulance Department a certificate. Two volunteers from each company who have so qualified will be selected by the commanding officer of the corps, on the recommendation of the medical officer, to

the stretcher-bearers of the corps, and to wear the Geneva badge on the right arm, and they will be entitled to wear the badge from year to year, on certificates by the medical officer of the corps, that they have attended not less than four ambulance drills during each year, ending October 31st.

THE PARKES MUSEUM.—Among the members elected at the last meeting of the Council of the Parkes Museum were :—Sir William Bowman, Bart., F.R.S.; the Hon. Sir John Rose, Bart., G.C.M.G.; Sir Henry B. Loch, K.C.B.; Sir Frederic Abel, C.B.; Mr. J. Bonham Carter; Surgeon-General James Monat, V.C., C.B.; Professor H. E. Armstrong, F.R.S.; Major H. B. Hamilton; Dr. S. O. Habershon, F.R.C.P.; Mr. W. Emerson, F.R.I.B.A.; Mr. J. Cooper Forster, F.R.C.S.; Stephen Salter, F.R.I.B.A.; Dr. John Williams, F.R.C.P.; Mr. Morrant Baker, F.R.C.S., and Mr. Thomas Bryant, F.R.C.S.

BRITISH HOME FOR INCURABLES.—The Right Hon. the Lord Mayor has consented to take the chair at the Festival at the "Freemasons' Tavern," on the 18th instant, in aid of the funds of this excellent institution, when the Board of Management hope sufficient subscriptions will be raised for a "Lord Mayor Fowler's Board," or "Pension Fund."

APPOINTMENTS.

APPLETON, THOS. A., M.R.C.S., L.S.A.—Medical Officer to the Second District, Fulham Union.

BUCHAN, W. A., M.B.—House Surgeon to the South Devon Hospital, Plymouth.

DARBISHIRE, S. D.—Clinical Lecturer at the Radcliffe Infirmary, *vice* Dr. Gray, resigned.

DOWNIE, J. W., M.B.—Lecturer on Diseases of the Ear and Throat, at the Western Medical School, Glasgow.

OLIPHANT, E. H. LAWRENCE, M.B., C.M. Ed.—House Surgeon to the Glasgow Maternity Hospital.

MCCLELLAND, J., M.D., M.R.C.S.—Honorary Physician to the Liverpool Infirmary for Children, *vice* Dr. Armstrong, resigned.

NANCE, H. CHESTER, M.R.C.S., L.R.C.P. Lond., L.S.A. — Senior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester.

POWELL, S., M.B., M.R.C.S.—Assistant Physician to the Hospital for Epilepsy and Paralysis and other diseases of the Nervous System, Portland Terrace, Regent's Park.

RICHARDSON, HENRY E., L.R.C.P., L.R.C.S.—Senior House Surgeon to the Borough Hospital, Birkenhead, *vice* M. Bernstein, resigned.

SMITH, FREDK. M. G., L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer to the Droxford District and the Workhouse, Droxford Union.

VINCENT, HENRY B., M.R.C.S. Eng., L.S.A.—Medical Officer to the Workhouse, Mitford and Launditch Union.

WOOD, G. B., M.B., C.M.—Resident Medical Officer to the Jersey General Dispensary.

VACANCIES.

BRIDGNORTH INFIRMARY.—House Surgeon and Secretary. Salary £130 per annum, rising £10 per annum, to £150, with rooms, coal, gas, and attendance. Candidates must possess registered Medical and Surgical qualifications. Applications, with testimonials, to be in the hands of the Secretary by the morning of March 18th.

ESSEX AND COLCHESTER GENERAL HOSPITAL, COLCHESTER.—Physician. Candidates must be graduates in Medicine of one of the Universities recognised by the Medical Council of the United Kingdom, or Fellows or Members of the Royal College of Physicians of London, or Fellows or Licentiates of the King and Queen's College of Physicians of Ireland, or Fellows of the Royal College of Physicians Edinburgh, but no candidate shall be eligible who practises, or is connected in partnership with any one who practises Surgery, Pharmacy, or Midwifery. Applications, with diplomas and testimonials to be sent to the Secretary, on or before March 19th.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, &c. Candidates' names must appear on the Medical Register, as being possessed of Medical and Surgical qualifications, and they must produce evidence of good moral character. Private practice prohibited. Candidates conversant with the Welsh language preferred. Applications, with testimonials, to be sent to the Secretary, on or before April 15th. The election will take place on April 30th.

SAMARITAN FREE HOSPITAL.—Surgeon. (*For particulars see Advertisement.*)

ST. PETER'S HOSPITAL FOR STONE, &C., HENRIETTA STREET, COVENT GARDEN.—Out-Patient Department. Surgeon. Candidates must be F.R.C.S. Eng. Testimonials to be sent to the Secretary, on or before March 17th. The appointment will be made on March 19th.

STOURBRIDGE UNION.—Medical Officer for the Kingswinford No. 4 District, in succession to Dr. Henry Walker, deceased. Population 9,300. Salary £50 per annum.

THAKEHAM UNION.—Medical Officer to the Second District, in succession to Dr. R. B. Mudd, resigned. Area 20,065 acres. Population 4,317. Salary £80 per annum.

THE MIDDLESEX HOSPITAL, W.—Obstetric Physician. (*For particulars see Advertisement.*)

THE CANCER FREE HOSPITAL, BROMPTON, S.W.—Resident House Surgeon and Registrar.—Honorarium of 75 guineas per annum, with board and residence. Candidates must be Members of the Royal College of Surgeons of England, and thoroughly conversant with the use of the microscope. Applications, with testimonials, to be sent to the Chairman of the Weekly Board, 167, Piccadilly, W., not later than March 17th.

TOWCESTER UNION.—Medical Officer to the Blisworth Districts, in succession to Mr. N. H. Lawrence, resigned. Area 7,367 acres. Population 2,721. Salary £50 per annum.

WEST LONDON HOSPITAL, HAMMERSMITH.—Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and not practising Midwifery or Pharmacy. They must attend, if practicable, at the meeting of the Medical Council, on Tuesday, 1st April, at 3·30 o'clock p.m. Applications and testimonials, to be sent to the Secretary, on or before March 31st. Applications are also invited, in the event of an Assistant Surgeon being elected, for an Assistant Surgeon.

WOODBRIDGE UNION.—Medical Officer to First and Second Districts, in succession to Dr. E. F. S. Green, resigned. Area 19,577 acres. Population 2,917. Salary £80 per annum.

WOLSTANTON AND BURSLEM UNION.—Medical Officer to Kidsgrove District, in succession to Mr. A. W. Strickland, resigned. Area 3,171 acres. Population 11,365. Salary £35 per annum.

DEATHS.

HOGG, HENRY LEE, M.R.C.S., L.S.A., at Cleobury Mortimer, Shropshire, on March 3, in his 71st year.

SHARMAN, MALIN, M.R.C.S., at Hollington, Bristol-road, Birmingham, on March 10, aged 59.

WALKER, HENRY, M.D., J.P., at Brierley Hall, on March 6, in his 65th year.

WATSON, THOMAS SANDEN, M.D., at 9, Lansdown-crescent, Bath, on March 6, in his 84th year.

NOTES, QUERIES, AND REPLIES.

THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—Sir Andrew Clark, Bart., £5 5s.; Sir Prescott Hewett, Bart., £5 5s.; Dr. J. C. Graham, Sumatra, £5; Robert Evans, Esq., £3 3s.; F. Manton, Esq., £2 2s.; Dr. Alex. Marsden, £2 2s.; Dr. Lloyd Roberts, £2 2s.; P. B. Giles, Esq., £1 1s.; J. R. J., £1 1s.; Geo. D. Pollock, Esq., £1 1s.; T. L. Leak, Esq., 10s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and T. Wakley, jun., Esq., L.R.C.P., 95, Radcliffe-gardens, hon. secretaries; or to Messrs. Coutts and Co, Strand.

A SUGGESTION.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In reading the lectures of Drs. Matthews Duncan and S. Wilks, on "Amenorrhœa and Vicarious Menstruation," in the *Medical Times* of February 2nd and 9th respectively, my thoughts turned to diaphoretics, diuretics, &c., and I wondered if it were not practicable and sensible to apply the same ideas these gentlemen have set forth in respect of vicarious menstruation and emmenagogues, to substances having properties which have been assigned them from time immemorial, and which are intended to do in another sphere what emmenagogues have been supposed to do for amenorrhœa.

I am, Sir, &c.,
GEO. H. CLARK,

W. Walnut Lane,
Germantown, Philadelphia, U.S.A.
February 26th, 1884.

An Unusual Cause of Bankruptcy.—At the Dudley County Court, on March 11th, inst., during the public examination of Mr. George Gilbert, bricklayer, it was stated that his failure was due to the payment of over £2,000 to different physicians and other medical agencies during the long illness of his wife. One item was £84 paid to a London physician for one visit to Birmingham. The bankrupt passed his examination.

COMMUNICATIONS RECEIVED—THE RIGHT HON. THE LORD MAYOR OF LONDON; Sir EDMUND LECHMERE, London; Prof. G. BUCHANAN, Glasgow; Dr J. HUGHLINGS JACKSON, London; Dr. T. CLIFFORD ALLBUTT, Leeds; Mr. C. MACNAMARA, London; Mr. WYNTER BLYTH, London; Mr. G. R. JESSE, Macclesfield; THE EDITOR, Pall Mall Gazette, London; Mr. A. C. FARRINGTON, Shelfanger; THE HON. SECRETARY, DENTAL HOSPITAL, London; THE EDITOR, NORTH BRITISH MAIL, Glasgow; THE HON. SECRETARY, CREMATION SOCIETY, London; THE HON. SECRETARIES, OBSTETRICAL SOCIETY, London; THE SECRETARY, PARKES MUSEUM, London; Messrs. W. LEWIS & SONS, Bristol; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. F. EDWARDS, Hampstead; Dr. ROBERT FOWLER, London; Miss LANKESTER, London; THE SECRETARY, THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, London; Mr. EDMUND OWEN, London; THE HON. SECRETARY, IRISH GRADUATES'

Association, London; Mr. Berkeley Hill, London; The Registrar-General, Edinburgh; Brigade-Surgeon Jessop, Preston; Dr. G. H. Clark, Germantown, Philadelphia; Mr. Blackbee, London; Mr. Marshall, London; Mr. J. L. Foulds, Glasgow; The Secretary, Statistical Society, London; The Secretary, Medical Society of London; The Secretary, The Society for the Encouragement of Arts, &c., London; Dr. A. H. Jacob, Dublin; Dr. Wm. Ewart, London; Mr. Edwin Bing, Canterbury; Dr. F. T. Dick, Melbourne; Dr. A. T. Thomson, Glasgow; Dr. Norman Kerr, London; Dr. Clifford Beale, London; The Secretary, The Royal College of Surgeons of England; The Secretary, The Royal Institution, London; Dr. J. W. Moore, Dublin; Mr. W. J. Spence, Bradford; The Secretary, The Medical Sickness Annuity and Life Assurance Society, London; Mr. J. Bellamy, Local Government Board, London; The Secretary, The Pathological Society of London.

BOOKS RECEIVED—

Annual Report of the Newcastle-upon-Tyne City Lunatic Asylum for 1883—Report of the Port Sanitary Authority for Liverpool for 1883—Reports of the Medical, Surgical and Pathological Registrars of the Middlesex Hospital for the Year 1881—Memorials of John Flint South, by the Rev. Charles Lett Feltoe, M.A.—Manual of Physiology, by G. F. Yeo, M.D. &c.—Reasons against the Metropolitan Board of Works (Further Powers) Bill—The New Code and Over-Pressure in Elementary Schools—Sketch of the Political and Social Programme of the National Party—Report to the Shareholders of The London Water Companies, on The Metropolis Water Bill of 1884, by F. R. Conder—Annual Report of the Willard Asylum for the Insane for 1883—The Homes of the Bristol Poor—Annual Report of the Sussex County Lunatic Asylum—Report on the Royal Lunatic Asylum of Montrose for 1883—Transactions of the American Ophthalmological Society, New York—Notes on Books, by Messrs. Longmans & Co.—Annual Report of the Inspector of Nuisances, for the Chester-le-Street Union Rural Sanitary Authority—Annual Report of the Sanitary Commissioner with the Government of India, 1882—Annual Report of the Barnwood House Hospital for the Insane, near Gloucester, for 1883—Annual Report of the Royal Hospital for Diseases of the Chest, City Road, E.C., for 1883.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift — Centralblatt für Chirurgie — Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift — Revue Médicale — Gazette Hebdomadaire — Nature — Boston Medical and Surgical Journal — Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt fur die Medicinischen Wissenschaften —Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal — The American Journal of Neurology and Psychiatry—Edinburgh Medical Journal —Maryland Medical Journal—The Australian Medical Journal—The Western Medical Reporter — The Analectic — The Indian Medical Gazette—The Polyclinic, Philadelphia.

APPOINTMENTS FOR THE WEEK.

March 15. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Capt. Abney, "Photographic Action."

17. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London, 8.30 p.m. — Dr. Amand Routh, "A Case (Adult) of Sporadic Cretinism with appearance of Myxœdema" (living specimen); Dr. Colcott Fox, "On Impetigo Contagiosa;" Mr. Astley Bloxam, "A Case of Head Injury."

Royal College of Surgeons of England, 4 p.m.—Mr. Frederic S. Eve, F.R.C.S. (Erasmus Wilson Lecturer), will give his First Demonstration "On some Points in Pathology," illustrated by Specimens from the Museum.

18. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Pathological Society of London.—Mr. Roger Williams, "Photograph of Congenital Absence of the Femora;" Mr. Makins, "Obstruction of the Trachea in a Child from Pressure of an Enlarged Gland;" Dr. Norman Moore, "Natiform Skull," Dr. Goodhart and Dr. Flott, Cerebral Tumour;" Dr. Morrison and Dr. Charlewood Turner, "A Case of Porencephali;" Dr. Pye Smith, "Tumour of the Thalamus;" Dr. Ormerod, "Cerebral Tumour;" Dr. Goodhart for Dr. Bevan Lewis, "Calcified Angeioma of Brain;" Dr. Sansbury, "Tubercle of the Brain;" Mr. Morrant Baker, "Epithelial Cancer following Syphilitic Ulcer of the Tongue" (living card specimen); Dr. Turner, "Defective Brain Cyst" (card); "Adeno-Sarcoma of Brain" (card); Dr. Sharkey, "Primary Cancer of Kidney" (card); Mr. Clutton, "Congenital Papilloma, in line of Bronchial Fissure" (card); Mr. Lockwood, "Dissected Specimen of Colles' Fracture" (card); Mr. Parker, "Congenital absence of the Rectum" (card); Dr. Taylor, "Tumour of Pituitary Body" (card).

Royal Institution, 3 p.m.—Prof. Gamgee, "Animal Heat."

Statistical Society (Royal School of Mines, Jermyn Street, S.W., 7.45 p.m.—Dr. G. B. Longstaff, "On the Recent Decline in the English Death-rate, considered in connection with the Causes of Death."

19. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Royal College of Physicians, 5 p.m.—Dr. Hughlings Jackson will deliver his First Croonian Lecture "On Evolution and Dissolution of the Nervous System."

Royal College of Surgeons of England, 4 p.m.—Mr. Frederic S. Eve, F.R.C.S. (Erasmus Wilson Lecturer), will give his Second Demonstration "On some Points in Pathology," illustrated by Specimens from the Museum.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution, 3 p.m. — Prof. Tyndall, "The Older Electricity."

21. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m.—Dr. Hughlings Jackson will deliver his Second Croonian Lecture "On Evolution and Dissolution of the Nervous System."

Royal College of Surgeons of England, 4 p.m.—Mr. Frederic S. Eve, F.R.C.S. (Erasmus Wilson Lecturer), will give his Third Demonstration "On some Points in Pathology," illustrated by Specimens from the Museum.

Royal Institution, 8 p.m.—Mr. Matthew Arnold, "Emerson."

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MEDICAL TIMES
AND GAZETTE.

No. 1760. LONDON, SATURDAY, MARCH 22, 1884.

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THE NEUROSES OF THE VISCERA.

BEING THE GULSTONIAN LECTURES DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS, LONDON,

By T. CLIFFORD ALLBUTT, M.A., M.D. Cantab., F.R.S., F.R.C.P.,

Senior Physician to the Leeds General Infirmary.

LECTURE III.—[Abstract.]

DR. ALLBUTT commenced by remarking that enteralgia was, perhaps, the most racking torture contained in the curse of mankind; so bitter, so searching was the agony, that more than one sufferer had said to him, calmly regarding his by-gone pains, that surely the sting of death would have been more welcome. In the handbooks of medicine of late years, this malady had received but a scanty and indistinct recognition, it had been so often confounded with common gripes, on the one hand; or, contemptuously tossed over to the limbo of hysteria, on the other. He made an exception, however, in favour of the writer in "Reynold's System of Medicine."

The two chief points of onset were the umbilical region, and the right flank. The central attacks were not strictly umbilical, but arose at a point usually about two inches to the side, generally the right side, of that mark, and the lateral attacks were generally a little higher than the iliac fossa, being nearer the back of the crest of the ilium itself. Gastralgia, he had already pointed out, was commoner in women by two to one, but of fifteen marked cases of enteralgia, eight occurred in men and seven in women. The four most severe instances were all in men of ages between 22 and 48. Cases of mere tormina, consequent upon irritation of the bowels or constipation, and cases of lead poisoning had been excluded, not because they had no element of visceral neurosis in them, but because it was his object to study the malady in its purest form. The greater relative frequency of enteralgia in men than of gastralgia might be explained in part by its being more directly allied to gout than was gastralgia, and partly by its dependence on the weightier stress of the larger affairs of men.

A family history of gout was characteristic of enteralgics rather than of gastralgics. Enteralgia, like sciatica, might be a "pure neurosis," but was, like it, not rarely of gouty nature. Enteralgia was due rather to the strife of public life, than to the teasing of homely worries.

In illustration of his views the lecturer quoted a series of cases:—A clergyman who had suffered from attacks of pain in the right flank, stabbing pains, causing frightful agony, followed by serious collapse and prostration; the patient was somewhat neurotic, but not melancholic or hypochondriacal. In another instance, also that of a clergyman, the chief pain was just

to the right of the navel, and was described as going through the liver and round the right side to settle in the kidney; the patient had improved on arsenic, quinine, and belladonna. In another case, that of a medical man, the patient had an abiding pain in the right flank, aggravated by jolting, as in riding or driving over a rough road; there was no evidence of any local disease. In another case, that of a lady, there was a distinct tendency to periodicity in the attacks, which were liable to come on in the early part of the night; the attacks were apt to be induced by fatigue, or by exposure to cold. Vomiting was not usually present in cases of enteralgia, nor was constipation more common than in other atonic affections.

After alluding to other cases, Dr. Allbutt mentioned that of a lady who described her sensations during the attacks as if a corkscrew were being driven into her side; the onset of the pains in her was very sudden, causing her to stand still like a statue, alternately flushing and turning pale; she had a very neurotic family history, and was cured by arsenic, quinine, bromides and belladonna. After alluding to a case in which gouty phenomena, migraine and facial neuralgia had preceded enteralgia, Dr. Allbutt concluded this series of cases by referring to that of a young man, in whom enteralgia was preceded by epilepsy.

The next series of cases included those where the patients rightly, as he believed, referred the pain to the hepatic flexure of the colon; this pain he described as follows:—

"It is not severe nor periodic, it is rather wearisome and abiding. It is found in the melancholic rather than in the brisk neurotic, but, like enteralgia, is, I think, clearly associated with gout. Although not connected with obvious disorder of the bowels, yet a course of blue-pill and Carlsbad water generally relieves it—a course which would drive an enteralgic subject into a frenzy." The pain of lead colic, though probably of immediate nervous causation, was, nevertheless, not difficult to diagnose from the preceding forms. It was more diffused than enteralgia, and more extended than the pain of melancholia. It was periodic, doubtless, but it was rarely excruciating, rarely a slashing pain. It was rather of a grinding or fretful character. The parallel constipation and other circumstances would always serve to differentiate it in those few persons who, suffering from lead poisoning, had no blue line.

In regard to the neuralgias of other viscera, we were met, he said, by the difficulty, as yet insuperable, of proving definitely in what nerves the pain might lie. All essays to localise abdominal pains in the splanchnic nerves and their paths to the sensorium, in the sensory fibres around the large arteries, or in the deeper connections of the spinal nerves, were mere gymnastics, barren exercises, which might stimulate the fancy, but which as yet could neither be proved nor disproved. "We can only find our way," said Dr. Allbutt, "through those obscure gates and alleys of the body, by patient clinical watchings, by grouping and contrasting our cases, and by noting the curious warps of disease." Careful clinical observers, such as Anstie and Spender, said there were such disorders as hepatalgia and nephralgia, and he was disposed to agree with them. He had watched three cases in which neuralgia seemed to be seated in the liver. In one, the patient had pain referred to the seat and area of the liver, it attacked him only at night, he had had no jaundice, and did not suffer from constipation. He recovered under the use of bromides and arsenic. Dr. Spender and Dr. Anstie had given excellent descriptions of this affection, the latter noting, as characteristic, a peculiar mental depression which accompanied the pain. As a parallel case to one given by Anstie, Dr. Allbutt mentioned the case of a young lady, aged 22 years, who suffered from attacks of pain in the hepatic region passing to the stomach. The family history showed decided neurotic tendencies. Her complexion was clear, and there was no anæmia. He had subsequently learned that on two occasions she had passed a gallstone. In two other cases that he mentioned, a for some time unexplained hepatalgia was found to be associated with the existence of gallstones. He thought that these cases suggested hepatalgia. Was a sub-hepatic pain, arising in the gall bladder and ducts, due either to the irritation of gallstones, or some vicious quality of the bile? This was how he would explain cases in which pain of hepatic and epigastric origin recurred frequently and violently at times between attacks, which were obviously due to the travelling of gallstones on the move. "At present, then, I regard hepatalgia," he said, "as a pain aroused by the coincidence of an impressionable or neurotic habit, with the presence of gallstones at rest in the bladder. That pain may not arise in these tubes independently of such or similar irritations, I will not of course assert."

Passing on to consider the subject of nephralgia, he mentioned the following case:—A lady, aged 41 years, had one morning been seized with very intense pain in the loins, chiefly on the right side. The attack lasted three hours, the pain going round the right side of the abdomen, and down the groin into the thigh. Micturition was frequent for some hours. These pains recurred every morning at the same hour, though with less severity; no cause could be found for the attacks, but a little sandy matter was present in the urine. It seemed probable that this was a mixed case, both the kidney itself and the nervous system being at fault; but the nerve condition was probably playing the chief part, because the patient was a highly nervous woman, and had suffered from other forms of neuralgia, because there was a decided tendency to periodicity in the attacks, and because no other considerable cause could be discovered. The gritty matter, already alluded to, was probably the determining cause. In another patient the pain was situated in the region of the right kidney; it was continuous with exacerbations; it followed the course of the ureter, and caused cramps and collapse; the urine afforded negative evidence only, and the patient improved on quinine and belladonna. After alluding to another somewhat similar case, Dr. Allbutt said that in chronic renal disease, granular kidney especially, gastralgia was apt to appear. He then quoted some remarks of Dr. Ralfe's on two cases of renal neurosis in connection with aortic regurgitation, "renal storms," as they had been called by the late Dr. Murchison, and by Dr. Habershon in his Lettsomian lectures.

Pains in the other viscera he passed by without mention, as the remarks he had already made were applicable to them all; but neuralgia of the rectum he recognised as a definite, not very uncommon, malady—the pain was rarely of a very violent character. Neurotic diarrhœa was, he said, a tolerably well recognised troublesome affection; in it the stools, though slackened, were rarely watery, and did not contain much mucus. Pain was variable, and the attacks were reproduced by nervous causes; both sexes were equally liable to it, and it was generally associated with other neuroses, such as migraine, or cardio-vascular instabilities. It was found at all ages, and arsenic was positively harmful.

Passing on then to consider the genetic affinities of the class of patients to whom reference had been made in his remarks, Dr. Allbutt said that the first fact that struck him was the frequent association of neuroses of the vagus with certain kinds of eczema, lichen, and psoriasis. Their frequent occurrence in asthmatics was generally recognised; he believed that eczema and its allies were as common in gastralgics as in

asthmatics. The skin affections and the gastralgia, if concurrent in the family, might not be concurrent in the individual, or if they were, they might not be contemporary in him, nor parallel in severity. In illustration he mentioned the case of a patient who had been treated by him for neuralgia, and who came back saying that the medicine had also cured him of his eczema. Another case in point was also alluded to. Some one had called gastralgia, eczema of the stomach, an assumption with as little of probability as of proof. Was gout then to be regarded as the spring whence arose these skin affections, gastralgia and asthma? Not directly he thought, though he believed in some remote affinity between them.

The distinction between the eczema, lichen, and psoriasis of "dartrous" and those of "gouty" habits, was partly to be seen in the histories of the patients and of their relations, and partly, though not so readily, in the characters of the eruptions themselves. In the dartrous, these eruptions tended rather to be more acute, more symmetrical, to moisten, to spread, and to itch greatly, while in the gouty they tended rather to limitation, to dryness, to lack of symmetry, and to a less active tint of hyperæmia.

The dartrous diathesis of Bazin and others had gastralgia among its evolutions, as the gouty might have; but the term dartrous might well be put in a subordinate place, and the term neurotic diathesis used to indicate the family. Healthy persons with dartrous eruptions were often found to belong to neurotic families. Two brothers illustrated this. The one was a very healthy man, with the exception of a continual liability to eczema; the other was an asthmatic. There were other strong neurotic characters in the previous generation. "But lately," he went on to say, "an odd thing happened to me. A young man, seemingly very healthy, came to me for severe gastralgia of a pure type. I pressed him as to skin eruptions, but he denied their presence in himself and in his family. Within the next six months there came to my rooms, first, his sister, a healthy looking girl, with recent and vicious eczema around both ears; then the mother, with symmetrical moist, spreading eczema of the legs; and, finally, the baby of another daughter, with eczema of the head. These successive cases were almost put down to my ominous enquiries, and in an earlier time I might have been burnt. There was no gout in the family, nor any suspicion of its latent presence."

Another diathesis that had to be taken into account was the rheumatic. A young lady, in whose family antecedents rheumatism was a marked feature, suffered from neuralgia which was replaced by gastralgia, this was only cured by a liberal diet and the use of strychnia. Did such cases show any direct tie between the rheumatico-gouty diathesis, the eczema and the visceral neuroses? He did not think there was any such direct tie. But there was another affinity which had to be taken into consideration. In the history of many neurotic families phthisis was present, a fact common to all the neuroses, and not confined to the gastro-abdominal only. Cases in illustration of such association were quoted. The coincidence of phthisis and rheumatic fever in family trees had been noted by other observers as well as himself. "To my mind then," Dr. Allbutt proceeded, "the natural group is neurosis, phthisis, and acute rheumatism. But what of the gout? Rheumatism and gout are certainly akin, the two maladies appearing in the same families, and even in the same persons at different ages. Yet I think gout goes by a different route to its direct work. A pure neurosis goes hand-in-hand with phthisis and acute rheumatism; but pains which, like migraine, enteralgia, sciatica, and so forth, may in such association be of the pure type, may in other instances be caused by the poison of gout, and thus should be put into a separate class, with the eczema and psoriasis of gout, which again are not 'dartrous.'"

In the one class, the neuralgias depended upon some congenital defect of nutrition, affecting the nervous apparatus itself; in the other class, the nervous apparatus originally healthy enough, or even vigorous, was angered by a circulating poison. Yet was there not some alliance beyond this, was there not some remoter pathological kinship, unexplained by the humoral theory? He believed there was, and that farther back there was some community of nature between the gouty and the neurotic habit; and to this we might ascend when we tracked out those phenomena which suggested that gout was itself originally a neurosis. Although there was then no cross alliance between neurosis, phthisis, and gout, yet we could trace the history of gout upwards to a point of union with a divergent stock which, two, three, or four generations back, had branched off into the tuberculo-neurotic.

In this form anti-gouty remedies were of no avail, nor did they succeed in those cases where neuralgias or skin affections, set up in the first instance by gout, had been left behind after the causing malady had ceased to exist. Specific remedies in such cases did harm, but this did not prove that the original diagnosis was erroneous. Urticaria was often found with the visceral neuroses, but zona perhaps never, unless there had been some cerebro-spinal disturbance at the same time. One lady, he had seen, ceased to be troubled by angina after a sharp attack of shingles. In another case a woman suffered from visceral neuralgia, and had a zona occupying the whole length of the ulnar aspect of the arm from the shoulder to the wrist.

Coming at last to the subject of treatment he said that although the principle of all therapeutics must be a clear diagnosis, yet, on the other hand, the most elaborate diagnoses were but laborious idleness if not made the basis of treatment. We might cry out with the child in La Fontaine—

> "Eh! mon ami, tire moi de danger,
> Tu feras, après, ta harangue."

The beginning of all successful treatment must be to convince the patient of the true nature of his malady. Once convince him that the stomach was the seat of neuralgia, and that any pain caused by food was as accidental as was the increase of pain in tic douloureux during the act of mastication; once let him realise that so far from waving his dishes aside, like the physicians of Sancho Panza, we would rather prompt him to indulge as liberally as his impaired forces would permit; once persuade him to throw all the alteratives, the pepsines, and the mineral waters to the dogs, the battle was half won. He could not read the lives of men, like Dr. Quincey or Carlyle, without suspecting that a timely course of Fowler's solution would probably have deprived us of the letters of Mrs. Carlyle, and of the *Confessions of an Opium Eater*.

By commencing gradually with small quantities of light and highly nutritious food, the gastralgic would get over his dread of food, and begin to digest more. Keeping the patient in bed for a few days secured economy both of heat and of work, and often sufficed to cure a neuralgia, cold feet indeed were frequently the exciting cause of an attack. Mental worry being a prominent factor in the disease, change of air and scene always acted beneficially. Gastralgics should go inland, rather than to the sea-side, where they were apt to become irritable and sleepless. On the other hand, neurotics must avoid mountain districts, a dry sunny slope a little away from the sea-shore suited them best. The only things that must be absolutely forbidden were tea, coffee, tobacco and strong meats. Tea retarded the pulse, and gave rise to a horrible empty feeling as bad

as the pain itself. Alcohol had better be forbidden, though it might occasionally be of some service. Morphia in severe cases could not altogether be dispensed with, but it should only be used to give relief in the severer attacks of pain. Of the other drugs, arsenic was by far the most useful in the treatment of gastralgia, small blisters to the epigastrium also did good. Quinine, belladonna, the bromides and silver salts were all useful, the former especially in those not uncommon cases where there was an association with malaria. Iron did good where there was distinct anæmia present. The treatmeut of these cases by alkalies was not to be commended. Arsenic alone could be considered a specific, and rest, sedatives, nutrition and tonics, constituted the other treatment. In enteralgia, quinine and belladonna had proved themselves more useful than arsenic, but the latter also did good. In all forms of visceral neuralgia, a source of peripheral irritation should be sought, and, when found, soothed if possible. The difficulties in the treatment of neurotic vomiting were well known, he had found walnut spirit useful in some cases. The vomiting in gastralgia might be called spasmodic asthma of the stomach, and was best treated by a little chloroform, or morphia subcutaneously.

Dr. Allbutt concluded these admirable lectures with the following very modest remarks :—

"Gentlemen, I must not detain you longer. Happily free as I am from neuroses in general, yet a sinking at the heart has possessed me many a time as I wrote, and then read, the lectures I have ventured to present to you. How slender is the offering none knows better than I. Once, while I have comforted myself with the thought that the late Dr. Symonds did not think the subject of headache too trivial for your thoughts, but again I reflected how much the more must be the talent of the speaker the less striking his subject, and how great the interval between him and me. That I have said nothing new to you I am painfully aware—that my words may not have fallen below the authority of this chair is my single hope."

THE RECENT DECLINE IN THE ENGLISH DEATH-RATE CONSIDERED IN CONNECTION WITH THE CAUSES OF DEATH.[1]

By G. B. LONGSTAFF, M.A., M.B. Oxon., M.R.C.P.

One of the most striking facts of the day, from the statistician's point of view, is the remarkably low death-rate that has prevailed in this country during the last eight years. From 1838 to 1875 inclusive, the death-rate averaged 22·3 per thousand, but during the eight years 1876–83 inclusive, it has averaged only 20·3. The only approach to such a low mortality was in the five years 1841–45, when the death-rate averaged 21·4 ; so that the recent low rate is both considerably lower and extends over a greater number of years.

Mr. Noel A. Humphreys in his paper last session proved conclusively that if the English death-rate should continue at the low average of the five years 1876–80, the mean duration of male life in this country would be increased by 2·0 years, and that of female life by no less than 3·4 years, as compared with the English Life Table. Moreover, among males 70 per cent., and among females 65 per cent. of this increased life would be lived between the ages of 20 and 60 years, or during the most useful period.

At Mr. Humphreys's request I have taken up the question where he left it, and have examined the changes that have taken place in the death-rates at different ages in the two sexes "from various causes of death."

Before entering into fuller detail it will be convenient, without taking into account sex and age, to ascertain what alleged causes of death appeared to be growing more and more potent, and what, on the other hand, are less and less frequently assigned.

For this purpose we may utilise Table XXXIV. in the Registrar-General's Forty-third Annual Report. In this are given the mean annual rates of mortality for each period of five years from 1850–79. From it the following table is constructed :—

Table A.—*Rise or Fall in the Death-Rates per* 1,000,000 *Persons Living in England and Wales, from Various Causes or Groups of Causes. Averages of Quinquennium* 1875–79, *compared with Averages of Quinquennium* 1850–54.

Risen per 1,000,000 Living.		Fallen per 1,000,000 Living.	
Lung diseases	1,213	Phthisis	694
Heart ,,	696	Developmental diseases	617
Brain diseases, excluding convulsions	377	Fever	569
Kidney diseases	229	Dropsy	405
Cancer	191	Convulsions	342
Liver diseases	76	Cholera	287
Diphtheria and croup	69	Small-pox	197
Tabes mesenterica	65	Scarlet fever	173
Whooping-cough	45	Diseases of stomach and intestines	112
Rheumatism	45	Hydrocephalus or tubercular meningitis	111
Other causes	196	Sudden death—cause unascertained	101
Total rise	3,202	Diarrhœa	85
Balance, fall	1,049	Measles	64
	4,251	Other causes	494
		Total fall	4,251

This table suggests several remarks. In the first place it will be noticed that six so-called "zymotic diseases," viz., fever, cholera, small-pox, scarlet fever, diarrhœa, and measles, between them contribute a fall of 1,375 deaths per million, against which there is a set off of 114, being the rise under the heads of diphtheria, croup, and whooping-cough, leaving a net fall of 1,261 deaths per million from the principal zymotic diseases. But as the total fall from all causes is 1,049, it is evident that the deaths from non-zymotic diseases must have risen 212 per million.

The increased mortality from lung diseases is remarkable. It will be shown in the sequel that this is not to be explained by the fall in phthisis, even were that fall large enough to explain it. Doubtless, however, some of the cases (but not very many) now classed under bronchitis would have been attributed to phthisis thirty years ago ; also some cases formerly attributed to old age alone are now more properly classed under diseases of lungs, brain, or kidneys. Among the diseases of the nervous system, there is a fall under the vague term "convulsions" in the first few years of life, nearly as great as the rise under the other members of the group at later ages.

Now it is obvious that errors due to all causes, and more especially errors due to changes in nomenclature and classification, will be minimised by comparing two periods as near together as possible, and for my present purpose it is convenient to take the periods 1861-70 and 1876-80.

[Dr. Longstaff then explained the numerous elaborate tables, on which the paper was founded, and continued.]

In the examination of these tables, it will be convenient to consider those causes of death first which Table A. shows to have been long decreasing in fatality, and subsequently those which appear to have increased.

Phthisis, or pulmonary consumption, is very fatal at all ages, from 15 to 75, but most so between 20 and 55;

[1] Extracts from a Paper read before the Statistical Society, March 18th, 1884.

at ages 5 to 20 it is more fatal to females than to males, after 45 it is more fatal to men. The death-rate has declined at every age with some insignificant exceptions in both sexes; the decline being for males 14, for females 22 per cent. The lives saved amounted to 3,966 males, 6,806 females; not less than 2,685 of the former, and 4,233 of the latter, were of ages 15 to 35, that is to say, were among the most useful of the community. The question has often been considered as to how this well-known fall in the mortality from phthisis is due to "medical fashion," that is, how far it may be a mere question of classification, since it is equally well known that the mortality assigned to the diseases of the respiratory organs (principally bronchitis) is increasing. Now there are two answers to this question. Firstly, it would appear that the discovery of the so-called bacillus of tubercle, would confirm the opinions of the older writers, that phthisis is a distinct disease *sui generis*, with many forms of manifestation, and not an ill-assorted mixture of unrecognised diseases as has been more lately taught. Secondly, there is an argument that is more in place here, the mortality from phthisis is shown by the table to have diminished at the ages 5 to 35, to an extent varying from 15 to 28 per cent., whereas "at all these ages the mortality from diseases of the lungs remained comparatively stationary." This is especially well seen in Tables IVA. and IVB. I have elsewhere ("Transactions of the Epidemiological Society of London," N.S., vol. ii, p. 119) shown other reasons for believing that substantially the diagnosis of phthisis from bronchitis, corresponds with nature. We must therefore credit medicine, whether preventive, curative, or both, with another triumph here; and let it be remembered, that this triumph means saving many lives when they are most valuable. There is still ample material to work upon, plenty of room for further improvement.

Developmental diseases come next in the list of those that have decreased in fatality during the last three years. The "lives saved" number 8,425 males, 9,837 females; of these numbers, 4,346 males, and 4,372 females, are in the first five years of life, and may be fairly attributed to the better management of children, and improved sanitary surroundings, which have diminished the deaths under the vague headings "teething," "atrophy," and the like. Of the rest 2,431 males, and 3,586 female lives saved, are at ages over 65, at which period there is a large increase of deaths from "local diseases," as they are called. Diagnosis is now more accurate, and certificates are more carefully filled up, hence fewer deaths are attributed to "old age."

"*Fever*" comprises typhoid or enteric fever, now the most important by far; typhus fever, which is still prevalent to some extent in Ireland, and lingers in the Irish quarters of Glasgow, Edinburgh, and Liverpool; and some less defined diseases numerically not very important. Fever kills males and females about equally, and at all ages, the two extremes of life suffering somewhat more severely. The percentage fall in the death-rate is very remarkable, being no less than 57 per cent. for each sex, the number of "lives saved" is no less than 6,188 males and 6,510 females yearly; the salvage being greatest under five years of age, but very considerable at each age below 75. It seems impossible to dissociate this great saving of life from the operations of the Public Health Acts. The fall in the death-rate from fever is, without doubt, the great triumph of the sanitary reformers. Typhus has been driven out, from place after place, by measures taken to check over-crowding and want of ventilation (which have been, to a great extent, successful, although the pamphlet literature of the past autumn has, no doubt, caused a general impression to the contrary), until it now only lingers in the lowest quarters of a few large towns. Things are not perfect yet, far from it, but they were once much worse, and that not so long ago. On the other hand, measures directed to improve drainage and water supply have been most successful in restraining enteric fever within comparatively narrow limits.

Dropsy.—All that need be said about this is, that in 1850, 9,981, or 2·8 per cent., of the total deaths, had this cause assigned, whereas in 1880 only 3,192, or 0·6 per cent., of the total deaths were so classed. This does not mean that fewer persons die of dropsy than then, but that the dropsy itself is now more commonly attributed to its approximate cause—disease of the heart, kidneys, liver, or ovaries, or cancer. In the tables dropsy is included under "Heart Diseases," but it has now ceased to play such an important part among the assigned causes of death as seriously to affect the correctness of the returns.

Scarlet fever has dimished notably, but it is not safe to draw conclusions as to the future.

In both *small-pox* and *diphtheria* there has been saving of life, but these diseases now cause such small mortality that their total extinction would only reduce the general death-rate by 0·2 per 1,000.

The *diarrhœa* figures are confused by the occurrence of the epidemic of Asiatic cholera in 1866. There is room for great improvement under this head.

The mortality from *measles* has diminished notably, but *whooping-cough* has been stationary. Whooping-cough is much more fatal to girls than to boys. Measles causes nearly five times, and whooping-cough nearly six times as many deaths as small-pox, while the amount of mischief to be attributed to these little-thought-of ailments in the way of impaired general health, permanent lung disease, and even blindness and deafness, will probably never be known. It would appear that as yet preventive medicine has failed to control these diseases; can this be because the people will not co-operate to put down diseases which only affect young children?

Turning now to the other side of the account, lung diseases have increased in the period under consideration, among males 13, among females 14 per cent. The annual "loss of lives" amounts to 6,490 males and 5,404 females; of these 3,486 males and 2,557 females were under five years old, while 2,919 males and 2,952 females were aged 35 years and upwards.

Heart Diseases and Dropsy.—The mortality of males has increased 14 per cent., of females only 11. In both cases there has been a notable fall at the earlier ages, but a considerable increase, greatest in males, after the age of 35. Whereas 344 male and 242 female lives have been saved before the age of 20, at all ages over 20 no less than 2,909 male lives and 2,363 female lives have been lost annually in the latter as compared with the former period in the tables. Corresponding with this increase is an increase in deaths from rheumatic fever, which is a most fruitful cause of heart disease.

Brain Diseases.—On one hand, 2,443 male children and 2,227 female children that would have died annually from diseases of the nervous system under the death-rate prevailing in 1861–70, now survive under the rates prevailing in 1876–80; but, on the other hand, at ages over 35 no less than 2,098 males and 2,078 females now die that would have survived, or died of some other cause under the former *régime*.

Kidney Diseases are in both sexes most fatal in middle and advanced life; they are about twice as fatal to men as to women. Female mortality has, however, increased nearly twice as much under this head as male, although the increase is very great in all cases, varying from 20 to 81 per cent. The total loss of life from renal

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disease amounts to 1,702 males and 1,417 females, mainly in middle and advanced life.

Cancer, in contrast to renal disease, is twice as fatal to women as to men; is rare in early life, but steadily increases in frequency from the age of 25 upwards. Cancer has increased 38 per cent. in males, 24 per cent. in females, the greater increase in males being probably due to the fact that cancer of the stomach and liver, which is commoner in men than women, is much more difficult of diagnosis than cancer of the female breast or of the uterus. Hence improved medical skill affects the returns for it more. The loss of life due to the increased mortality from cancer amounts to 1,187 males and 1,661 females, of which seven-eigths are above the age of 45. A recent writer[2] said he was convinced that the long-continued and steady increase of cancer was not apparent only, and accounted for by increased accuracy of diagnosis and registration, but was an undoubted fact; the cause is quite unknown, but must probably be sought in some abnormal circumstances of our artificial existence. It should be remembered that very few, if indeed any, recover from this much-dreaded disease, and also that it chiefly attacks after the reproductive age is past. From these facts we may draw the consolation that if there are many killed, there are no wounded, and that although the tendency to cancer may be handed down to offspring, they are not born enfeebled in consequence of their parents' ailment.

As regards other diseases, I will only remark that with trifling exceptions there is more or less gain of life under each division of each zymotic disease; also that the increased number of deaths from violence at the higher ages, accompanying a diminished death-rate at the lower ages, is a curious fact that is difficult to explain.

[Dr. Longstaff then discussed at considerable length the effects which these modifications in the mortality of this country might be expected, if continued to exert, as, (1) the duration of life; (2) the sex and age distribution of the people; and (3) the rate of increase of the population; and he concluded his paper with the following inferences, drawn from the facts under review.]

(1.) The decline of the death-rate in recent years is chiefly to be attributed to a diminished number of deaths assigned to fever and phthisis, and in a somewhat less degree to scarlet fever, diarrhœal diseases, small-pox, diphtheria and measles.

(2.) There is also a great diminution under the heading "all other diseases," but this is largely to be explained by greater precision in filling in certificates of the cause of death, which partly accounts for the increase under certain other causes.

(3.) There has been coincidently, with a fall in the general death-rate, a considerable increase under certain causes of death, notably diseases of the lungs, heart, kidneys, and cancer.

(4.) The figures prove that only a portion of the increase noted under the above headings, can be explained by improvement in the returns. There has been a real, not merely an apparent increase. More especially the increase under lung diseases will not explain the fall under phthisis.

(5.) The gain under phthisis is more important than the loss under cancer, kidney diseases, and some others, since the lives saved are more valuable than those lost, also in the case of phthisis, parents beget children when far advanced in disease, a fact greatly to be regretted.

(6.) Preventive medicine should be especially directed against those diseases which kill the largest numbers, such as "local diseases" generally, the ill-defined diseases of infancy and phthisis; while among the zymotic diseases, diarrhœa and scarlet fever, whooping-cough and measles, are more important than diphtheria and small-pox.

(7.) Since the falling causes of death can only fall to zero, but the rising causes may rise indefinitely, the present changes may in course of time lead to a rise in the general death-rate.

(8.) The tendency appears to be for useful working life to be increased, but for old age to be slowly shortened.

(9.) The increased mortality in the latter years of life, and such phenomena as the increase of defective sight and rapid deterioration of the teeth, probably result from the increasing proportion of the population living under the artificial conditions of town life.

(10.) The present increased mortality at the higher ages cannot possibly be explained by the recent diminished mortality at the beginning of life, even on the supposition that the survivors are more delicate.

(11.) The changes that are taking place in the incidence of mortality almost all aid the other causes which contribute to the great superabundance of women in England and Wales.

(12.) They also tend to increase population both by diminution of deaths, and increase, positively and relatively, of births.

[2] H. P. Dunn, F.R.C.S., in *British Medical Journal*, 1883, pp. 708, &c.

LIFE AT SEA—MEDICALLY CONSIDERED A CRITICISM.

By ROBERT WILLIAM PARKER,
Surgeon to the East London Hospital for Children.

As one who firmly believes in the efficacy of the "exhilarating and fresh breezes of the ocean," I venture to offer a few friendly criticisms on the article "Life at Sea," which appeared in a recent issue of the *Medical Times*.

Like Dr. Hughes Bennett, I also have served "in an official capacity" at sea, but let me add at once, that my experience—though much more recent—is not so wide nor so long as his. This, in his opinion at least, may perhaps account for that divergence in our views, which it is my purpose now to express. I will take the points raised by Dr. Bennett *seriatim*. And first, as to the general advisability of "taking invalids from the comforts and luxuries of home." This is always a very grave question, whether the object be a sea-voyage, a journey to Egypt, the South of France, or any so-called health station; where the one is warranted, and undertaken on adequate grounds, and *under suitable medical authority*, the other in my opinion may equally well be allowed. It is not the unsuitability of life on board ship on the one hand, or the fatigue of a long journey overland on the other, which is responsible for the disasters that attend both practices, so much as the sending away of patients who would be far better at home, both for individual and for general reasons.

In reply to the general question, *Is life at sea a healthy one?* I should unhesitatingly say—Yes. I would further assert, that if sailors are not healthy, the fault lies not in the occupation, so much as in their mode of life, when *out of occupation* on shore. Sailors who lead steady lives on shore, acquire a vigour of constitution such as only few landsmen attain to. I am ready to admit that there are, or have been marked shortcomings in the diet, and sleeping accommodation supplied in some ships; there are, or have been, cases of hardship on board; but these are not necessary evils, so much as the accidental results of insufficient

legislation; they cannot at any rate be used as evidence in the main argument before us—the advantages of a sea-voyage for invalids. I should be quite willing to admit that there are certain quarters of the globe, where special dangers lurk; the mouths of certain rivers on the West Coast of Africa for instance; but even here the men often suffer, because they fail to observe those precautions which experience has shown to be needful; invalids would naturally avoid such localities.

The great failing of sailors is too much liquor while "on shore." If they would but abstain altogether from alcoholic drinks, *or drink in moderation*, there would be much less sickness among them, and less need, at the end of every voyage, to weed out the crews as is now done. Sailors can no more afford to trifle with their health and strength than their less favoured brethren on land. The sleeping accommodation in the "fo' castle," is certainly not always very first-rate; on the other hand, the sailor's "turn-in" is short, and the rest of his time is spent on deck, in an air such as we cannot get in London at any price. As regards his food, changes of temperature, &c., is a man in the same social position better off in the slums of Liverpool or London? As to the mortality statistics, it must be borne in mind that not all those who call themselves seamen are real sailors; many are ne'er-do-weels, who have tried many occupations without success, and for the reasons already hinted at. We must carefully analyse the figures, not only on these points, but also as to cause of death. I have a firm belief that a sailor's life is *per se* a very healthy life, and will contrast favourably with any other occupation of the same social stratum. But even if it were not, could Dr. Bennett apply the argument to the main subject under discussion?

Dr. Bennett himself points out many classes of persons who "would be greatly benefited by a trip for a few weeks in a yacht or a sailing vessel." I agree with him thus far. For an overworked professional man, as an escape from the wear and tear of business life and excitement, as a rest after late hours or too much dissipation, I consider a sea-voyage as unequalled in its power of restoring health and nerve. But I would even go further, for I think there are many persons suffering from "incipient phthisis," who would benefit immensely from a voyage of from two to four months, *in suitable latitudes*, and *in suitable seasons*. The case suggested by Dr. Bennett, as an example, seems to me to be just such an one as would benefit. We have a patient with incipient disease, on board a first-class ship, supplied with every convenience and comfort, an experienced surgeon to attend him, and *wealth* to procure every desirable luxury. Such a patient need not share his cabin with any one; many ships, indeed, are so constructed that two cabins can be turned into one large state-room, it being only a question of money. The free ventilation referred to, is a strong recommendation rather than a drawback; the "exposure of every kind, sudden change of temperature and climate, extremes of heat and cold, ... " obtain to some degree, but not more so than on land, even in the favoured localities frequented by invalids. Of course I am referring to a well-selected voyage, as for instance, to the Cape and back, or to Australia and back, by way of the Cape, or indeed by way of Suez, and in a good steamer. The picture drawn by Dr. Bennett, is the reverse of what I myself experienced. Within a very few hours, a good steamer leaves the cold, bleak, sunless atmosphere of the fiftieth degree of latitude behind, and steadily approaches the warmer degrees, with their bright clear atmosphere and, often for weeks together, almost unbroken sunshine. On board the large translantic steamers, which ply between England and the Cape, and the Australasian colonies, any and every luxury can be had by those who have wealth; fresh vegetables, fresh milk, fresh meat, and poultry, are freely provided for all—not merely for invalids, but as part of the daily bill of fare, and choice wines and good fruit are as easily obtained as on land. The saloons are luxuriously furnished and large; they are frequently decorated with gorgeous sub-tropical flowers, which are taken on board at some of the stopping places *en route*. The coaling of a steamer is certainly a disagreeable performance; fortunately this does not occur very often, and only lasts two or three hours each time. If a patient were too weak to go on shore, he might shut himself up in his cabin, and would then escape the dust at least, if not altogether the noise and bustle incidental to this dirty, but very necessary operation. The amount of rain and damp varies much with the season, but most ships are now provided with saloons, smoking rooms, or a music room on deck, where passengers can while away their time, should the weather preclude open air exercise on the quarter deck; there is a good library of books on general literature, as well as light reading in the form of novels, for the use of passengers; there are many other ways of passing time, such as concerts, private theatricals, readings, and dancing; scarcely a day goes by without some incident to break what Dr. Bennett describes as the "monotony about a life at sea." The study of the ship's log, the interchange of signals with passing ships, the ship's daily run, the presence of some unusual birds, all trifling incidents, are nevertheless amusements, which prevent an ordinary, well-balanced mind from any sense of *ennui*. The study of one's fellow passengers, their adventures in life, their accounts of new countries, their views of persons and things, the contrast of colonial ideas with those of the old country, are in themselves a source of much pleasure and information. The admirable arrangements of a ship, the punctuality, and orderly conduct of all the officials, strike one, and the vast amount of information which the officers accumulate, renders contact with them during a voyage, instructive and agreeable.

As regards the "horrors" and "discomforts," incidental to the keeping clean of the decks, working the cargoes, and the vibration of the engines, I will only say that a few days serve so to accustom passengers to it, that they sleep through it all. The following incident will serve to illustrate this point. On a voyage home from the Cape, a valve gave way one night, and the engines had to be stopped about midnight, in order that the valve might be repaired. What was the result of this unexpected cessation in the vibration of the engines? The passengers could not sleep, and all came on deck to see what was the matter! I made great fun out of this, and whenever a passenger subsequently referred to the noise of the engines, the little incident I have related was used, and a laugh obtained at his expense. The noise and vibration of the engines are, however, elements of discomfort too real to be ignored. On this account, in the newest ships, the state rooms and saloons are all built either amidships, or even still more "forward," and thus noise, heat, vibration, are reduced to a minimum. This class of ships takes out one or two milch cows, a quantity of live stock for the supply of fresh meat *en route*, as well as a number of fowls, geese, ducks, with which to vary the ample meals, admirably cooked, and well served in a spacious saloon: these form in themselves no inconsiderable source of pre-occupation; mineral waters, choice wines, ale and stout, are all obtainable. I fail to see what more an invalid could get, or could wish, on land even in a favoured locality.

In contrasting a voyage in a good ship with a railway journey, I was immensely struck with the

obvious advantages of the former. On first going aboard, one's cabin is put in order, and a few cabin ornaments hung about, goods and chattels are suitably arranged in the manner one is *accustomed to at home;* there is subsequently no further trouble until the end of the voyage, everything one can wish is at the command even of moderate means. Nor must I forget the morning bath or douche in water fresh from the ocean —a great treat, and one worth a considerable amount of inconvenience. How different is this from the din and hurry of railway travelling, the dust and dirt, the confinement for hours together in a close stuffy carriage with strangers, the constant stoppages, the badly prepared food, and all the other evils too well known to need recapitulation.

Of course, an invalid would not undertake a voyage alone; while the wealthy, in addition to a friend or two can take their own servants, or a trained nurse to attend on them during a voyage. There is one drawback, referred to also by Dr. Bennett, but not so prominently brought forward as I think it deserves: I mean sea-sickness. For a very few, this is a serious drawback. I think about two per cent. of all passengers suffer more or less the whole voyage. Should an invalid, unfortunately, belong to this minority it would be a most disagreeable *contretemps.* Curiously enough, in my experience, weakly invalids are often exempt, while strong-looking people succumb; with the generality of passengers sea-sickness passes off in about 24 to 48 hours. Children are singularly free from sea-sickness. In one of my voyages I brought home an invalid lady; it was doubtful whether she would be able to bear the voyage; events proved that beyond a little nausea for about 24 hours, the sea had no effect upon her; but her nurse, a powerful woman, was ill for several days. It is desirable to provide a store of aperient medicine. Troubles at sea among passengers frequently depend on constipation due to the want of exercise. Dr. Bennett refers to this lack of exercise. Something may be done by pacing the quarter-deck systematically every day. But a bottle or two of some aperient bitter water, of which a dose should be taken two or three times a week, will well repay the outlay, and the trouble entailed in packing it.

I need not say more on the special question; but I would enforce the desirability of not undertaking either a voyage or a journey in search of health without good reasons, and without the help and advice of those who have really studied the question. I think Dr. Bennett's estimate of the "discomforts and deficiencies" of a voyage is probably a correct one for voyages as they were fourteen years ago; but I venture to think that all the conditions have now been thoroughly changed. They are just as much changed as the ships themselves, and fourteen years have brought about remarkable alterations in all that concerns marine architecture and economy. A voyage to the West Indies, or to Australia, or to the Cape, can now be made in splendidly fitted ships; and those who possess wealth can have as many comforts on board—provided they are not hopelessly bad sailors—as are to be obtained on *terra firma.*

German Students in the Summer Session of 1883. —The *Breslauer Aerztliche Zeitschrift* states that the following are the statistics of the German Universities for the summer of 1883:—Berlin, 4,062; Bonn, 1,165; Breslau, 1,559; Göttingen, 1,104; Greifswald, 741; Halle, 1,414; Kiel, 441; Königsberg, 929; Marburg, 848; Münster, 328; Erlangen, 641; Freiburg, 823; Giessen, 464; Heidelberg, 1,019; Jena, 631; Munich, 2,295; Strassburg, 834; Würzburg, 1,085; Leipzig, 3,097; Rostock, 231; Tübingen, 1,373. Of these 25,084 students, 6,172 were students in Medicine, 9,117 in Philosophy, 5,626 in Jurisprudence, 3,558 in Evangelical Theology, and 811 in Catholic Theology.

THE TREATMENT OF GRANULAR LIDS, ENTROPION, TRICHIASIS WITH PANNUS, NEBULOUS AND ULCERATED CORNEÆ.

By J. ROCHE, M.D., Mount Clarence, Kingstown.
(Retired Surgeon, Bombay Army.)

In the winter of 1875, Mary A. H. Y., a builder's daughter, of about 23 years of age, presented herself to me with the affections of the eyes, designated by the superscription of this article. She had suffered from delicate sight since her childhood, and in the year 1872 had contracted a severe cold, which apparently induced conjunctivitis and ophthalmia tarsi on both sides. She had recourse, after some time, to medical advice, was more than three months in hospital, and attended an eye-hospital for nearly six months as an out-patient. Drops were put into her eyes, blisters were applied to her temples, and counter-irritants were used over her brows. Her lids were everted and touched with bluestone, and also with a caustic solution respectively, for long periods. She is well acquainted with them, as she will never forget the pain attendant on their use, she states. When I saw her she had the striking and general appearance of a strumous unhygienic constitution, a greasy countenance, puffed lips, dwarfed nose, and knitted forehead. Her appetite was bad, and her tongue yellowish, indicative of nervous exhaustion. The conjunctivæ of both eyes were purplish red, the lids were granular, thickened and entropic, trichiasis was well marked, the lashes pointed in all directions, and their origin from the tarsi was exceedingly irregular. Both corneæ were vascular, the right almost to pannus; it had a large ulcer in the lower segment; the left had wide-spread superficial nebulæ. The patient had very little sight in the right eye, had intolerable photophobia in both eyes, and had a racking pain in the temples and brows, especially at night. The presence of light was so irksome that she had confined herself in a dark room for months, which no doubt contributed to reduce her state of health to the low grade it presented. I extracted the hairs from the lids, as being an immediate cause of irritation to the corneæ and conjunctivæ. I ordered an ointment composed as follows: Ung. Cetacei, Ung. Hydrarg. aa. ℥ss. and Pulv. Opii. gr. xxx., to be applied thickly on the outside of the lids, and over this a poultice made from washed bread, and saturated with infusion of oak-bark, to be laid over the eyes every night, and the oak-bark infusion to be used through the day with a linen bandage. She took internally Tr. Laricis ℥. x. Liq. Arsenicalis ℥. ij. Infusi Quassiæ ℥i. three times a day. The improvement was slow but well marked: the lids did not cling together so tightly in the morning, and the light became less offensive. She had cod-liver oil and syrup of iodide of iron. When the eyelashes returned in entropic manner they were extracted. The improvement was steadily progressive, the lids gradually thinned, the exuded and semi-organised sub-mucous lymph—the cause of the granular appearance and of the inverting of the lids and hairs—became absorbed, and the natural and normal condition was approached, the corneæ resuming their transparency excepting that a leucomatous spot supplanted the ulcer on the right. The conjunctivæ regained their clearness, and the eyes lost their ferrety look. Nearly six months were required for the cure.

During the last eight years the subject of this history has been well, with the exception that there is a slight superficial nebula in the situation of the former corneal ulcer (and I have no doubt from its superficiality, that the occasional stimulation of a few drops of vin. opii

would remove it), and that whenever she gets a cold, the lids become tender, which is remedied by the ointment, which, I may mention, needs warming in a porcelain spoon.

The mucous membrane lining the lids and covering the eyes is somewhat analogous to that of the bladder. Both are subject to periods of rest and motion, and to have in contact with them saline secretions, which in a healthy state do not irritate, but in an inflamed state do. Inflammations in both are attended with submucous lymphy exudations which thicken, contract, and deform the structures. Rest, anodynes, emollient astringents and the prevention of the lodgement of the hurtful excretions are the remedies for diseases in either of them.

To dissect away the roots of the eyelashes, or to cut off a portion of the outer skin under the brow, is merely combatting a symptom, not counteracting the cause, and is therefore utterly unsound treatment in entropion. To vary the inflammation by solutions of vegetables (jequirity), animals (cantharides, pus), metallic salts (copper, iron, &c.), acids or alkalies, the difference between which is rather in degree than in kind, may be successful in a manner by substituting a more vigorous and a more controllable state in granular lids, but to attack the pathological cause is a different thing. The injection of the bladder and uterus with irritant astringents in catarrh of these organs is now merely obsolete treatment. The speedy removal of phlogistic excretions and the use of emollients, anodynes, and tanno-gallic injections are to be preferred. I trust that a similar course will be adopted ere long in affections of the mucous coat of the eyes and lids after a rational system.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTERN INFIRMARY, GLASGOW.

CASES OF RADICAL CURE OF HERNIA.

By G. BUCHANAN, M.D., F.R.C.S. Edin.,
Professor of Clinical Surgery, University of Glasgow.

For several years I have discontinued Mr. John Wood's operation, even in the adult, and have performed an operation identical with that which I introduced for children in January, 1879. The following recent cases may be given in illustration.

Case 1.—W. D., aged 30, came under observation on February 15th, 1883. He was strong and healthy, but had suffered from a reducible inguinal hernia on the right side for ten years. The hernia is not very large (about the size of a turkey's egg), and has hitherto been easily reduced. It can be kept up by a truss, but his experience is that every now and then, notwithstanding every precaution, it comes down on any considerable exertion, and sometimes it takes some trouble to reduce it. In these circumstances he came to me to ask if something could be done to enable him to dispense with the truss, and insure his safety. I told him that I believed the radical cure could in his case be performed safely and effectually, but I also frankly said, as I always do, that no such operation could be done without some risk, and it was for him to decide whether or not he would accept this risk, with the prospect of a fortunate result.

The operation was done by making an incision along the sac, the bowel being retained within the abdomen by the finger of an assistant placed on the external ring. The sac was separated from the cord, a catgut ligature was tied tightly round its neck on the ring, and the pillars of the ring drawn together tightly by silver wire, which was introduced by a nævous needle. In passing the needle through the internal pillar of the canal care was taken to include the lower edge of the conjoined tendon, as is done in Wood's operation. The wound was treated antiseptically.

It is needless to detail the particulars of the after-treatment. Some inflammation, granulation, and slight discharge occurred, but the result was perfect. At this date (March 10th, 1884) not a trace of the hernia is visible.

Case 2.—G. M'N., aged 55, admitted to the Western Infirmary, Glasgow, September 26th, 1883. History: 26 years ago, after a kick in the groin from a horse, a swelling appeared and continued to increase, and for this he wore a truss, with not much relief, as he was never able to get the tumour entirely away. On the day of admision it could not be even diminished in size, and his medical man could not reduce it. On admission there was a large ovoid tumour in the right groin, elastic, tense, doubtfully fluctuant, not tympanitic. Vomiting had occurred several times, but not severely. I put the patient under chloroform, but though the tumour got smaller and less tense, there was no gurgling, and no feeling of any part having receded. There was no testicle in the right side of the scrotum, and I was led to think that it might be a hydrocele of the tunica vaginalis of an undescended testicle. I left the patient till next morning, as the vomiting was not urgent or even bilious.

Next morning I again put the patient under chloroform. Prof. Humphry, of Cambridge, who was in Glasgow as President of the Sanitary Congress, was present. On cutting into the sac, it proved to be, as I anticipated, a hydrocele in the inguinal canal; but behind the testicle which occupied the lower end of the canal there was a knuckle of dark red bowel, which was strangulated by the neck of the sac, near the internal ring. This I divided, and returned the bowel. The testicle being very small I removed it, and after that sewed the pillars of the ring together, as in the last case, with strong silver wire, clipping short the ends, and leaving them at the bottom of the wound.

Recovery was tedious, owing to the amount of granulation to fill up the cavity from which the testicle was taken. But the result was perfect cure of the hernia.

Remarks.—It is unnecessary to detail other cases, of which I have had many; the result of my experience is as follows:—Many years ago I used to perform the operation of Wütz er with the plug, which was much advocated by Sir Spencer Wells, about 1858 or so, but I was not satisfied with its results. After Prof. John Wood introduced his operation with the wire, I adopted it, being satisfied with the accuracy of the anatomical principles on which it was based. But it was not suitable for the cases in which I desired to use it most, viz., in children. His operation with pins I did not find suitable, as indeed he himself admits. So in 1879 I performed the operation described in this paper, and was so satisfied with the results that I see no reason why it should not be adopted in the adult, as Mr. Banks of Liverpool, and others, besides myself, have done. Mr. Spanton's operation with the screw I have no experience of, not having met with a case in which I deemed it likely to be preferable to the one I adopt, and I incline to believe that the retention in the tissue of the wire, which binds the columns together, is probably more likely to resist any tendency to future descent of the hernia, than agglutination by fibrous tissue alone.

Medical Times and Gazette.

SATURDAY, MARCH 22, 1884.

The agitation against overwork in schools has increased, is increasing, and ought to be carried on until decided and satisfactory means are adopted to prevent the evil complained of. But many of the cases brought forward as illustrations of this evil are very weak and imperfect; and not a few break down altogether under enquiry. The Vice-President of the Committee of Council on Education was questioned in the House of Commons on Thursday last week about the case of a boy who was reported to have died from over-pressure of work at a school in Wolverhampton. One of Her Majesty's Inspectors had been sent down to enquire into the matter; and it appeared that the medical man who attended the child, a boy of seven years of age, had said he "died of brain fever, the exciting cause of which was school work." But there had not been any inquest, nor had a *post-mortem* examination been made; and Her Majesty's Inspector learned that the child's chief complaint had been that his throat was sore; and it was shown that he had not had any home lessons; and that though he lived near the school, and his teacher frequently passed by his house, his parents never made any complaint about his health, or of the work he had to do. The boy had not long before passed the first standard; and most people will agree with Mr. Mundella that it does not seem possible the child had been overworked. It should be remembered that mistakes like this, injure the cause they are meant to support. Unintelligent zeal is always mischievous.

The ruling of Mr. Justice Stephens as to the legality of cremation, as a mode of disposing of dead bodies, has naturally excited much attention, and questions have been put in the House of Commons, to the Home Secretary, on the subject. It will be remembered that Mr. Justice Stephens declared that he could not say cremations were illegal, in cases where medical certificates had been given that death had resulted from natural causes, provided the process of cremation had been conducted so as not to cause a public nuisance, or to provoke a breach of the public peace. Sir William Harcourt, in reply to questions put by Mr. Labouchere and Dr. Cameron, declined to give any opinion on the matter as respects the legality of the practice; but said, that as far as it concerned him, as an administrative officer, he could not in any way encourage it. He believed the practice to be repugnant to the general sentiment of the people; and that it might, in cases like the Liverpool poisoning case, become an obstacle to the detection of crime. In this latter belief, the Home Secretary is unquestionably right—it constitutes *the* objection to the adoption of cremation as a mode of disposing of our dead; but he avoided expressing an opinion as to whether he has, or has not, any power to prevent or effectively discourage the practice.

An unusual number of patients and ophthalmoscopic drawings were exhibited at the meeting of the Ophthalmological Society last Thursday week, as will be seen by a reference to our report of the evening's work, which appears in another part of this issue. Even with the greatly improved accommodation that the building operations of the Medical Society last session have provided, the opportunities for examining the patients were not all that could be desired; and as this feature of the exhibition of living specimens is a very important part of the Society's work, it would be a matter for regret if its utility in this respect was in any way impaired.

There were also several communications of interest. One by Mr. Snell, on two cases of Retinal Glioma. Mr. McHardy described, and strongly recommended, his operation for chronic primary glaucoma, advocating a large iridectomy. He was followed by Mr. G. E. Walker, who advised an almost exactly opposite line. Dr. Gowers read a short but very interesting paper on cases of Spasm of the Ocular Muscles; and then Dr. McKeown introduced the important subject of the means to be adopted to diminish the number of cases of blindness from ophthalmia neonatorum; this led to the appointment of a committee to consider and report upon the whole subject. Dr. A. H. Benson brought to a close a long meeting with some observations on jequirity.

A paper, by Dr. S. West, upon Multiple Abscesses in the Liver, at the Clinical Society's Meeting, on Friday, March 14th, gave rise to a discussion of some interest. Numerous cases were cited of hepatic abscesses owning no primary cause outside of the liver itself, and yet, in many instances, small and numerous. The hard-and-fast line that has been drawn by some authors between the single simple abscess and the multiple pyæmic variety is thus rudely broken through, and there would seem to be every reason to believe in the occurrence of multiple abscesses of idiopathic origin; the great clinical distinction being, that the latter variety admits of perfect recovery. With regard to the symptoms of hepatic abscess and their respective diagnostic value, various opinions were expressed. The experience of surgeons would appear to be in favour of tapping all such abscesses below the margin of the ribs rather than through the intercostal spaces.

The subject of the treatment of foreign bodies impacted in the œsophagus was introduced by a concise account given by Mr. Butlin of a case, in which he had been compelled to perform œsophagotomy for the removal of artificial teeth firmly fixed in the œsophagus, and almost completely obstructing it. The necessity for the operation is happily very rare, although the occurrence of accidental swallowing of artificial teeth would seem to be almost common. Several speakers were enabled to bring forward cases, and the opportunity was not lost for the relation of several interesting anecdotes bearing upon the subject. A typical case of Myxœdema was exhibited by Dr.

James Anderson ; and several examples of perforating ulcer of the foot and dislocated patella, a list of which we append elsewhere.

Neurology was rather the order of the day at the Pathological Society's meeting last Tuesday, no less than four of the communications dealing with this subject. Unfortunately none of them can be considered as aiding much in the great question of cerebral localisation. In Dr. Pye-Smith's case, for instance, with the utmost deference to him, we cannot see that there is any good reason for refusing to attribute the paresis of the arm, the ptosis, and the optic neuritis to the tubercular meningitis. We are inclined to believe that it is very nearly impossible to say how long a tubercular meningitis may have existed merely from the *post-mortem* appearances.

Dr. Ormerod's case was hardly sufficiently free of complication to be relied upon as indicating the centre for hearing, and the same may be said of Dr. Ilott's. Drs. Morrison and Turner showed a case of "Porencephalie," the chief interest of which was its extreme rarity. Mr. Makins's case of pressure on the trachea by caseous mediastinal glands is certainly one of considerable rarity, caseous glands after measles being one of the most common experiences in the wards of a children's hospital, and this region being their favourite seat, but for them to lead to such serious dyspnœa as they gave rise to in this case is very exceptional, and indeed probably almost unprecedented, in this country at any rate.

At the annual meeting of the Royal Medical and Chirurgical Society on March 1st, 1884, it was resolved —"That in recognition of the moral worth of the late Mr. B. R. Wheatley, and in gratitude for his devoted services to this Society, as its librarian, for nearly forty years, a subscription be opened among the Fellows of this Society, to which the Members of the Pathological and Clinical Societies and the Fellows of the Obstetrical Society shall be invited to contribute, in order to extend the provision which Mr. Wheatley was able to make for his sister and niece ; and that a Committee be named to carry out this object, which the Presidents of the Pathological, Clinical, and Obstetrical Societies shall be invited to join." An account has been opened for the "Wheatley Memorial Fund" with the Union Bank of London, Argyll-place, Regent-street, London, W. The Presidents of the various Societies have taken up the movement cordially, and the following Committee has been appointed, viz. :—Dr. George Johnson, President of the Royal Medical and Chirurgical Society ; Mr. J. W. Hulke, President of the Pathological Society ; Sir Andrew Clark, Bart., President of the Clinical Society ; Dr. Gervis, President of the Obstetrical Society ; Mr. John Marshall ; Mr. Cooper Forster, Treasurer ; Mr. Savory ; Dr. Wilson Fox ; and Mr. Berkeley Hill, Honorary Secretary.

The Council of the Clinical Society have resolved to subscribe the sum of twenty-five guineas to the Fund, and the example thus set by the Society as a whole will doubtless be followed by the individual members who compose it, in order to provide a fund worthy of its object and, in the words of Sir Andrew Clark, "equal to our means, if not to his merits." The unvarying courtesy and untiring zeal which endeared the late Mr. Wheatley to all members of the older Society have been already acknowledged in many ways, but no more graceful mode of recognising his important services to the other Societies which meet in Berners Street could be adopted, than the establishment of a fund under the auspices of the respective presidents, with a view to the purchase of an annuity to extend the provision which he had been enabled to make for those hitherto dependent on him. A cause such as this needs no advocacy.

The adjourned debate on Sir W. G. Hunter's report on the cholera in Egypt, having ended in a way that gave satisfaction to neither side, the Secretary of the Epidemiological Society requested Dr. Geo. Gulliver to reopen the subject last week. This he did in an able and remarkably modest paper, treating the whole question of the ætiology of cholera in an impartial and truly scientific spirit. After enunciating the several views held by different authorities at home and abroad, he proceeded to discuss the evidence for and against (1) the theory of direct contagion, (2) that of atmospheric and telluric influences, which he called the Indian theory, and (3) that most favoured in Germany, which refers cholera, enteric and yellow fever, and some other diseases, to a class of transportable miasmata. This is the view which we have throughout advocated, though without committing ourselves to the refinements and speculations with which some of the Munich school have surrounded it, and which are as yet but hypotheses, unproven if not incapable of proof. We do not think that Dr. Gulliver did full justice to this theory, or indeed, fully understood it, appearing to lay too much stress on the associations suggested by the word miasm, which he seemed to consider as synonymous with malaria proper. His arguments, however, in favour of the communicability of cholera, of contagion in some sense of the word, were so able, so fair, and supported by such a mass of facts drawn from the history of cholera, in England, India, America, and Egypt, as to elicit the heartiest expressions of appreciation, even from those whom they failed to convince. Indeed, no one could refuse to admire the thoroughly scientific tone of the paper, which we hope to reproduce more fully, and the entire absence of dogmatic assertion.

Surgeon-General Comyns, who was at Malta in 1865, was able to explain the oft-repeated paradox of the outbreak of cholera in that island, while the strictest quarantine was maintained, by showing that the first cases occurred on the shore of the quarantine harbour, the tideless and stagnant waters of which were fouled with the choleraic excreta from the infected ships. The Governor, discrediting the nature of the disease, withdrew the cordon which Dr. Comyns had established, and cholera soon appeared on the opposite shore of the harbour. Here, close to the mouth of a sewer, the 22nd Regiment embarked on board the

Simoon *en route* for Gibraltar, and the disease broke out among the men on the voyage. The neighbouring island of Gozo remained free while the cholera was raging at Malta, until the quarantine at first rigidly enforced had been evaded.

But the most brilliant illustrations of the modes in which cholera is propagated, were furnished by Sir William Smart, K.C.B., R.N., who told how the French troops at Varna returned from a march into the Dobrudsha smitten with cholera, and encamped on a plateau, through which ran a stream, from the mouth of which the English admiral's ship and others obtained their water, while higher up the French soldiers were washing their soiled clothes. The flag-ship lost 140 men, but Sir William's, which had brought a supply of pure water from Corfu, remained perfectly healthy except once, when moored near the shore while the wind was blowing strong from the French camp, a single case occurred. At his suggestion, the captain took her straight out to sea, and no other case appeared on board.

The series of scientific debates on the cholera has probably closed for the present, and in reviewing them it is clear that they have not been very productive of definite results, for the temptation to deal with personal experiences and curious anecdotes seems a difficult one to resist. These, though always more or less interesting, are usually more or less contradictory; thus a meeting comes to an end before any attempts can be made to extract, from evidence brought forward, such points of special value as may form the basis of suggestion for research in fresh directions. The discussion which followed Dr. Gulliver's paper was in the main no exception to the general rule. Each speaker was rich in narrative, poor in suggestion as to how his narrative might be applied for practical good, and, in some cases, the experiences were too involved to admit of being clearly followed by those to whom they were addressed. Negative results must be expected from meetings of this kind, until speeches are strictly limited in time, and directed into the main road when they wander into by-ways and alleys. A few remarks, well to the point, open up the field for reflection and are really worthy of more attention than the lengthy speeches to which we have referred: ten minutes should be the outside time allowed, and even that might be reduced, where the discussion is limited to an hour, and many members are present. Dr. Norman Chevers, the President, in thanking Dr. Gulliver for his paper, spoke of the loss sustained by the profession and the world at large through the death of the late Mr. Gulliver, and made a graceful reference to his being worthily represented in his son.

Gay with shamrocks, but oppressed by the proximity of Parnellites in the same building, the Irish Graduates' Association dined at the Holborn Restaurant on Monday last, under the presidency of Professor G. F. Yeo. Numerous distinguished guests were present, among whom we may mention Sir Joseph Lister, Sir Andrew Clark, and Dr. George Johnson, the new President of the Medico-Chirurgical Society. Sir Andrew Clark, in spite of his "surprise and consternation" at being expected to speak, was very happy in his allusions to the objects of the meeting, the gradual fusion of three nationalities to form one people "blended together for the good of nations." Other speakers were—Dr. Hare, Dr. William Stokes, the President Elect, Dr. Macnaughton Jones, and Dr. Thompson, the Treasurer.

The first dinner of the newly established Aberdeen University Club will be held on May 21st, under the presidency of His Grace the Duke of Richmond and Gordon, K.G. At a special general meeting of the Club, held at the Inns of Court Hotel, on March 12th, Surgeon-General Sir W. Guyer Hunter, in the Chair, the Rules, as revised by the Provisional Committee, were unanimously adopted. The number of members already enrolled augurs well for the future success of the Club. The Honorary Secretaries are Dr. R. W. Burnet and Mr. R. M. Routledge, from whom any information with respect to membership, &c., may be obtained.

Deputy-Surgeon-General Veale, M.D., at the Parkes Museum recently delivered an able and suggestive lecture on the organisation of field hospitals. He began by quoting the judicious counsel of the late Dr. Parkes, that just as the individual soldier during peace is drilled and trained for war, so should the various departments of an army, and especially the medical department, so utilise the time of peace, that on the outbreak of war, they may be able to put in action all those measures which are needed to maintain the troops in health, and to minimise the effects of disease or injury when these occur. He said that Dr. Parkes had been more especially led to the study of hygiene, after seeing our armies, which "in courage, drill, and discipline, had never been surpassed," embark for the East, and return at the end of a few months reduced to insignificance and impotence; not by the shot or sword of our enemies, but "by the starvation, the misery, and the disease which were due to the insufficiency of our military system." Military hospitals had undergone many and important changes since that time, the "regimental system" having been abolished, and the unification or general hospital system substituted for it.

But while this was an improvement for the hospitals, unfortunately it had somewhat interfered with the friendly understanding which had till then subsisted between the combatant and the medical officers. To some extent this was a result which might have been anticipated, for the army, said the lecturer, was eminently a conservative institution, and it was natural that its officers should wish to retain in the combatant ranks all those privileges of power and authority of which they had the traditions and the *prestige* from the feudal times. He thought, even now, that the majority of military officers were of opinion that they could manage the hospitals better than the medical officers, although if we looked back, it could not be doubted that when the specially military authority was supreme

(as at the commencement of the Crimean war), the results of that form of hospital management were highly disastrous both to the army and to the nation at large; whereas with every increase of medical authority in our subsequent military expeditions, there had been greater efficiency in the hospital administration, more effectual preservation of the health and lives of the soldiers, and, as a consequence, greater economy. He advocated, therefore, still larger powers for the medical officers.

The subject of the soldiers' food was next referred to. He believed the daily ration of meat was insufficient, and he thought the present system of giving the chief part of the food at the dinner hour injudicious, as there was nothing but tea or coffee, and a little bread with or without butter for the morning and evening meals, which, for young and growing men, was not a sufficiently supporting diet, and this led to a frequent recourse to alcoholic stimulant which was prejudicial to them. As regarded the military hospitals, he thought their organisation had hardly kept pace with that of the civil hospitals, and by contrast looked bare and cheerless. He disapproved, too, of the present plan of admitting into hospital every man who was unable to perform his full duty; he thought it prejudicial to the moral qualities, both of the soldiers and their attendants; it tended "to make them hypochondriacal, and to engender the habit of going into hospital for trifles;" a system which, when campaigning, might be attended with serious inconvenience. Nurses and orderlies, too, having to deal with many such cases, were apt to become careless, and to lose that sense of responsibility which they ought to feel for every patient.

The question of field hospitals was then minutely gone into, the present system criticised, and its weak points, as they appeared to the lecturer, were pointed out. In discussing the *personnel* of a field hospital he recommended that the medical staff should be selected much on the same plan as that adopted in the metropolitan hospitals, physicians, surgeons, and pathologists, so that they might be ready for any and every emergency. He laid great stress on the importance of having the food for the sick and wounded well prepared, and hospital cooks, he said, ought to be specially trained so as to be able to turn to the greatest advantage whatever materials might be served out to them. There were many other points in the lecture to which we do not allude, because of the limited space at our disposal.

Sir Joseph Lister, Bart., will take the Chair at the Parkes Museum, on Thursday, March 27th, at 8 p.m., when Mr. Watson Cheyne will give a demonstration of all the principle types of Micro-Organisms. Tickets for admission can be obtained through members of the Museum.

The Paris Municipal Council have decided to erect a statue to Broca, in the neighbourhood of the École de Médecine.

It may be well again to remind the Fellows and Members of the Royal College of Surgeons of the meeting which is to be held on Monday next. Important changes in the Charters of the College are to be proposed, not the least being one which is to give Fellows the power of voting by proxy. Such a radical change in the laws of so conservative a body as the College Authorities have hitherto shown themselves, is a sign of an enlightened policy, and of liberal views, which augur well for the future prosperity of the College. It is needless to point out that such a change, if effected, may completely alter the character of the Council; and it is only fair to the intellectual capacity of the Fellows at large to predict that changes which result from a more general participation of the Fellows at large in the management of College affairs will be a gain, both to the profession and to the public. It is a matter for regret that these changes were not earlier conceded by the present Council, and before an association had been formed, whose object was largely to effect them. It now only remains for the Members to band together and secure for themselves that share in College management which their number and personal interests entitle them to expect.

We are glad to be able to state that at a meeting of the Association of Fellows of the Royal College of Surgeons, held at Birmingham yesterday, a resolution was passed to the effect that the officers of this Association be authorised to state, at the meeting at the College on the 24th instant, that the concessions announced by the Council include all the objects for which the Association has contended, and that it desires to recognise the readiness and grace with which the Council has granted them.

The programme of the forthcoming Tercentenary of the Edinburgh University has been issued, and it promises to be an affair of some bigness; 80 delegates will represent various British and foreign Universities, and seventeen of them will receive honorary degrees; 62 honorary degrees will be conferred on unofficial guests, of whom 232 have been invited. Medals will be struck to commemorate the occasion; there will be a dinner to which 1,000 will sit down, and a torch-light procession of students with 1,000 torches. The proceedings will open on Tuesday April 15th, with a reception by the Lord Provost; on Wednesday the 16th, the Medical Faculty will give a luncheon in the new buildings of the University; on Thursday the honorary degrees will be conferred, there will be a luncheon at the College of Physicians, and an afternoon reception by the Royal Medical Society, and the Tercentenary banquet in the evening; and on Friday the President and Fellows of the Royal College of Surgeons will give a breakfast, and the students will wind up the affair with their illuminated stampede. A list of the medical delegates, and the medical men on whom degrees will be conferred, is given in our news column.

The Medical Sickness, Annuity, and Life Assurance Society has decided to accept members contributing for sickness pay alone, without combination with an

annuity. But it is not their intention to undertake the payment for sickness in old age, and the insurance for sickness pay must always cease at the age of 65. A table has been drawn up, giving the amounts payable per quarter, at each year of life from 20 to 49, to insure in sickness, two, three and four guineas per week respectively. A practitioner insuring at 33, which, we may take it, is about the age when the fear of the results of illness begins to grow oppressive, would for quarterly payments of one pound, thirty shillings, and two pounds respectively, be able to make himself sure of two, three, or four guineas a week in sickness. We are not sure that this department of the society will not prove the most popular in the long run. There are many practitioners who have insured their lives in other societies, and who have expectations from living relatives, and they are thus comfortable in their minds as to what will happen when they die or grow old; but they have no such security as to what will happen if they fall ill. For practitioners so placed, the new development of the society affords exactly what they want—the feeling that if they break down, one weight will be removed from their minds.

No members of the medical staff, fortunately, were killed in the battle of last week, but two, viz., Surgeon Prendergast, of the Army Medical Department, and Surgeon H. E. F. Cross, of the Royal Navy, were seriously wounded. Mr. Prendergast was speared in the chest as he stayed behind to look after the wounded, and was with difficulty saved by two soldiers, and Mr. Cross was wounded in the forehead by a bullet. Both are happily doing well. Mr. Cross comes of a medical family well known in London, and is very popular with a large circle of friends.

Last week the mortality in the great English towns, excluding London, remained almost exactly what it was in the previous week, and in the great Scottish towns showed a distinct fall; but in London there was a notable rise—the death-rate which had been 19·3 and 21·3 in the two preceding weeks having gone up farther to 21·6. The most unsatisfactory thing about this increase is, that it was due to the greater fatality of zymotic diseases, but for which the death-rate would have been unusually low. Two weeks ago the zymotic deaths in London only numbered 179, and were 51 below the average; the week before last they numbered 215, and were still seven below the average; last week they numbered 261, and were 31 above the average. Two weeks ago the zymotic death-rate was 2·3 per 1,000; last week it was 3·4. This increase is due to a greater fatality on the part of small-pox, enteric fever, measles, and whooping-cough, especially the two latter. This is especially unfortunate, considering that Dr. Longstaff has just been congratulating us on our victories over infectious diseases, and in a more superstitious age would have put down as a retribution for boasting.

The excessive mortality from whooping-cough deserves earnest notice. It has shown a steady tendency to rise during the last quarter of a year, the deaths in thirteen successive weeks having been 42, 46, 68, 63, 69, 80, 85, 78, 83, 82, 74, 92, and 117. The last figure, that of the current return, is as much as 37 above the average. Some steps ought to be taken by the sanitary authorities to prevent this terrible waste of infant life, but it is probable that more good could be done by a united effort on the part of hospital out-patient physicians. No child with whooping-cough ought to be allowed to visit any out-patient department—in the first place, because of the obvious danger of infecting other children, and in the second place, because no medicine that the most scientific and adventurous therapeutist could prescribe can ever counterbalance the harm done by bringing a child with whooping-cough out-of-doors. The true remedy for the evil is one which we have advocated before now, the establishment of half-a-dozen small whooping-cough hospitals where children could be rigidly kept in a temperature like that of a southern health resort.

Baron Huddleston, in giving judgment in the case of Weldon *v.* Winslow, commented on "the astonishing and," as he thought, "shocking fact, that with an order and a statement signed by paupers, and two certificates signed by men whose only qualification need be the possession of diplomas, and the fact that they were not related to the keeper of the asylum to which a patient was to be sent, anybody might be shut up in a private asylum." It is difficult to see the relevancy of this comment. Mr. Weldon undertook to pay Dr. Winslow 400*l.* a year for taking care of Mrs. Weldon, and the presumption therefore is, that he was not a pauper. Furthermore, since private asylums are conducted on business principles, and their proprietors look for a profit from their business, it is somewhat unlikely that any proprietor would be found to take charge of a patient on the order of a pauper. The observation of the learned judge might be interpreted to mean that any irresponsible person, casually fixed upon—a pauper even—may sign the order. If this is the meaning that he intends to convey, the learned judge is in error, for the form of order prescribed by Act of Parliament (16 and 17 Vict. c. 97, Schedule F., No. 2), requires that the order shall set forth the "Degree of Relationship (if any) or other circumstance of connexion with the patient" of the person who signs the order. So much for the qualification required of the person who signs the order.

As to the qualification required by the persons who sign the certificates, it appears astonishing and shocking to the learned Baron, that the possession of diplomas is the only qualification necessary. It is difficult to understand what more the learned judge would have. Does he think that it is unsafe to entrust this onerous responsibility to every man in the possession of a diploma? Would he restrict it to those only who have special experience in insanity? Then, is not Dr. Winslow one of the very class to whom the duty should be entrusted? Baron Huddleston may reassure himself. So long as medical men who sign certificates of lunacy are liable to be placed in the witness-box, and subjected to the ordeal that Dr. Winslow has just gone through, or so long as they are liable to the frightful

expenses of such an action as that of Nowell *v.* Williams, they are not likely to exhibit any undue eagerness to sign a document so fraught with danger to themselves.

At the meeting of the Paris Académie de Médecine, on the 11th instant, the election took place for supplying the place in the section of Medical Pathology, rendered vacant by the death of Prof. Lasègue. The section sent in its lists of candidates, arranged in the following order:—On the first line, M. Bouchard; on the second, M. Siridey; on the third, M. Damaschino; on the fourth, M. Cadet de Gassicourt; and on the fifth, M. Sanné. At a very full meeting of the members the order of precedence arranged by the section was not maintained, and M. Siridey received the support of 48 of the 85 voters present, and M. Bouchard 37.

The Medical Officer of Health for Croydon has reported to his Sanitary Committee the results of an inspection of "closets" in the district, from which he draws some important inferences. The number of closets inspected amounted to 8,275, all apparently belonging to the poorer class of houses. Of these 5,811 were "closets with water," and 2,464 "closets without water;" 1,339 of the latter being under fortnightly inspection, and the remaining 1,065 not regularly inspected. Some years ago, when Dr. Buchanan reported on the epidemic of enteric fever at Croydon, he specially recommended that all closets which were supplied directly from the main should have their water cut-off, as such method of supply was found to lead not only to waste of water, but to contamination of the water in the mains. This recommendation was adopted by the authorities, and as each water-closet was deprived of its water (and so robbed of its right to its name) it was placed under regular inspection. But besides these there were found to be, as above-stated, 1,065 water-closets which, from defective or removed fittings, were water-closets only in name. Of these, happily, only 25 were situated inside the house to which they belonged, for 40 per cent. were found in a filthy state, and some are described as being in a disgustingly dirty condition. Of the closets without water, under regular inspection, three per cent. are found dirty at every fortnightly visit of the inspectors. On the other hand, of the 5,811 closets with water, only 3·4 per cent. were found with dirty pans when recently inspected. In the Lambeth water area, which is an out-lying part of the borough, somewhat similar results were obtained; of the closets without water, .52 per cent., and of those with water, 12 per cent., were dirty.

Commenting on these statistics, the Health Officer says that he is strongly of opinion that closets, without water, are distinctly unsanitary, and are calculated to affect injuriously the health of those living in the houses to which they are attached. "I do not deny," he writes, "that a water-closet can be as effectually flushed by the pouring of a quantity of water into the pan from a bucket as by any flow of water from a cistern. But hand-flushing involves extra trouble, and human nature being averse to trouble, the pan frequently goes unflushed after use, and soon becomes dirty. The essence of the water-carriage system is the immediate removal of excremental matter while in its early and least harmful state; dirty closet pans are in direct contravention of its first principles. Excremental filth in the neighbourhood of dwellings must always be considered as injurious to health, and we know that emanations from the sick in certain diseases, notably in enteric fever, have the power of conveying the disease to others. . . . It has been said that in Croydon no illness has ever been traced to these closets without water. But there is no evidence whatever on this point in our possession, either to support or refute this statement. We rightly condemn as unsanitary, many conditions which unfavourably affect the public health, to which, however, it would be difficult to trace any specific disease. In reiterating my opinion, that closets without water are unsanitary and likely to affect injuriously the public health, I beg most respectfully to urge on your Committee the necessity of taking steps, as soon as possible, to remedy the evil."

A correspondent sends us this:—"The wide spread fear of contagious germs and the appreciation of the value of antiseptics seems to be more intense on the Continent than with us, if I may judge from what I saw and heard last year when on my travels. For example, the chance of inhaling tuberculous bacteria has been met by a sanitary spittoon, and the fear of absorbing poisonous matters at the other end of the body by antiseptic closet paper, both for use and placing on the seat. The former I met with in Germany under the name of 'Cellulose Closetpapier mit Salicylsäure getränkt,' and the latter in France as 'Feuille hygiénique de la siége des water-closets avant de s'y asseoir garantit de tout contact malsain et dangereux.'"

The subject of jequirity ophthalmia, which has engaged the attention of ophthalmologists and others a great deal of late, receives a valuable contribution from Dr. Klein, in a paper published in the last number of the *Centralblatt für die Medicinischen Wissenschaften*. A theory was propounded in the course of last summer by Dr. Sattler, that this peculiar form of ophthalmia had its origin in a special bacillus or its spores, believed to be present in the jequirity infusion. Dr. Klein's experimental investigation of the question has led him to meet this theory with a direct contradiction. Taking all possible precautions to sterilise the infusions employed, and to render septic contamination impossible at any stage of his proceedings, he successively injected portions of sterilised infusion into a clear cultivation material (solution of peptone), and beneath the conjunctivæ of the rabbit. The former was preserved in the usual manner, at a given temperature, and after 24 hours showed no trace of turbidity or any evidence of the development of micro-organisms, whilst in the same lapse of time an intense ophthalmia was set up in the inoculated animals. After another 24 hours the microscope failed to detect any sign of a bacillus, either in the cultivation fluid or in the purulent discharges from the affected eyes, nor did

the pus so discharged appear to have any infective power whatever. From these experiments it becomes clear that the active principle of the freshly prepared infusion has the power of producing ophthalmia independently of the presence of any micro-organism, and that the preliminary boiling of the infusion, which has been observed to render it innocuous, must not be attributed to the destruction of the bacilli as suggested by Dr. Sattler, but rather to the alteration of the active principle of jequirity which thus loses its fermentative action.

We have received the first number of a publication brought out under the auspices of the Independent Medical Practitioners' Association, a body lately formed in Calcutta, to guard the interests of the independent practitioners in that city, and to endeavour to make their grievances better understood by those in authority. It is manifestly unjust that those in Government pay should be allowed to compete in private practice with those who are less favoured. If their pay is not sufficient, and we believe that it is not, by all means let them receive adequate remuneration. But, we think, that our readers will probably agree with us, that the formation of such an Association as the present is more than justified when they peruse the following list of posts which one Government servant was allowed to hold. The gentleman in question was a Surgeon-Major in the Indian Army; he was also First Surgeon to, and Lecturer in Surgery at, the Medical College Hospital, Examiner in the Calcutta University, Editor of the *Indian Medical Gazette*, Consulting Medical Officer to one or more Insurance Offices, and to a Railway Company, Health Officer for the Municipality of Calcutta, and finally a General Medical Practitioner.

The sixth and concluding report of Dr. Koch to the German Government, on the pathological relations of cholera, of which a translation appears in our present issue, is deserving of the closest study. With that confidence which experience alone can give, Dr. Koch now proclaims that the bacilli which he described in his former reports are undoubtedly the cause of cholera. That he has failed to produce the disease in animals by inoculation he makes no secret of, but this does not, in his opinion, invalidate the accuracy of his conclusions. The bacilli of enteric fever and leprosy have been generally accepted as the essential factors in the spread of their respective diseases, and yet those maladies have never as yet been transmitted to animals. The observation that these bacilli possess a much lower resisting power than most, if not all, of such organisms, is one that may, perhaps, explain why outbreaks of cholera are more under the control of thorough sanitary measures than are some kindred maladies, and the speedy way in which the bacilli succumb to the influence of acid solutions enables us to comprehend the comparative immunity with which persons in good health can attend upon cholera patients.

The amended Medical Bill passed through Committee in the House of Lords yesterday (Thursday) afternoon. A brief report of the speeches will be found in another column.

THE GULSTONIAN LECTURES.

A certain American humourist once grievously complained of the Poet of the Breakfast Table's uncontrollable *penchant* for saying the things he would like to have said himself. Something of the same injured feeling will, not unlikely, be present in the minds of many, when they read Dr. Clifford Allbutt's Gulstonian Lectures. Just as there were, according to their own account, Darwinians before Darwin, and differentiators of typhus and typhoid before Stewart and Jenner, so now probably there will be not a few to maintain that they have long given due weight to the nervous element in dyspepsia, and been fully impressed with the difference between hysterics and neurotics. It would be extravagant to credit Dr. Allbutt with a discovery equal to those we have mentioned, but his main contention has this element of most great discoveries, that once stated it immediately commends itself to many as being exactly what they have long felt, though they have not had sufficient imaginative force to openly formulate it. Much of the best work in medicine has been of this character. The clinical lecture on typhoid fever, for instance, which Sir W. Jenner published a year or two ago, was generally acknowledged to be one of the most valuable of his many contributions to medicine, and yet there was hardly a physician, with any extensive experience of the disease, who was not ready to declare that the lecture contained nothing that he did not previously know. The late Mr. Bagehot probably had something of this sort in his mind when he enunciated the apparent paradox, that a rigid adherence to commonplace is the best avenue to success. But the commonplace that has the most force in it, is that which no one feels to be commonplace until it is formulated by some one else.

If there is one subject on which every practitioner alike feels himself qualified to write, and to argue, it is that of dyspepsia. It is a complaint of universal extension, and, unlike many others, has no limits of race, class, or climate. Martyrs to it are found not only, as Dr. Allbutt says, at every street corner, but even where civilisation has not got so far as streets. In that fresh and delightful book, "The Story of an African Farm," the Boer equivalent for indigestion is given the first place in a glossary of not more than a score of words. Then, in addition to its being the complaint of half their patients, there are few practitioners whose own stomachs have had no history. And most of us hold the possibly erroneous notion, that we know more about, and can describe better, a contest in which we have ourselves taken part, than one of which we have been merely eye-witnesses. For these reasons Dr. Allbutt's lectures will no doubt receive much more attention, and will probably have a much more vital effect on the theory and practice of the profession, than lectures which take us into the more recondite byways of medical science.

It is impossible in the space of this article to touch upon more than one or two of the many interesting points raised by the Gulstonian lecturer, and first, as to the use of the word "dyspepsia." It has been long felt that the application of the term to so many varying conditions is unscientific, but it

seems to us equally, if not more, unscientific, to discard a convenient expression, only to replace it by terms which depend on hitherto unproved theories. Many of the terms of disease, still in common use, have no better right to their place than "dyspepsia." What are hemiplegia, and paraplegia, and aphasia, and facial palsy, and consumption, and croup, but examples of names of symptoms made to do nosological duty provisionally, until science is in a position to give a full and satisfactory account of the pathological conditions on which they depend. They will no doubt disappear, with dyspepsia, as we get truer views of what lies behind them; some indeed, like paraplegia, are already becoming obsolete. But it cumbers progress rather than helps it to prematurely discard well-known terms, for others which in their turn may have to be discarded, when the theory on which they rest has proved to be untrue. The question with regard to dyspepsia, is whether the time has yet arrived, when we can safely substitute for it a more scientific nomenclature. If every practitioner had Dr. Allbutt's clinical insight, we might perhaps answer the question in the affirmative. But the whole tendency of his lectures is to show how difficult it is to unravel any given case of dyspepsia, and no one can doubt that for the present the ordinary practitioner's more sensible course will be to retain the use of a provisional term, which prejudges nothing, rather than to label his cases with terms implying a theory, and a consequent treatment, which, in nine cases out of ten, may turn out to have been erroneous.

Dr. Allbutt's vivid picture of the neurotic subject deserves, like all faithful observations faithfully and impressively rendered into words, to live amongst the medical classics of the future—an honour granted only to an infinitesimal proportion of scientific literature. It is a picture rather of a section of the neurotic family, than of the whole class, a section, too, which, we are inclined to think, is more peculiar to the North of England, than to the South. We meet, indeed, in London with neurotics who tally so accurately with Dr. Allbutt's picture, that, just as with the characters depicted by Miss Austen, or George Eliot, we are almost driven to conclude that these very acquaintances of ours must have sat as models for the picture. On the other hand, however, we are familiar with other neurotics, who possess not even a family resemblance to Dr. Allbutt's typical specimen. The traits of functional nervous disease probably vary far more with race and climate, than those of any other form of morbid deviation from health. Dr. Allbutt himself admits that the hystero-epileptic type, which is common in the Paris hospitals, and which has left its mark on the religious history of the Continent, is extremely rare in the North, rarer probably than it is in London; and it is quite likely that the type which Dr. Allbutt has found so common in his practice, would be regarded as anomalous by Professor Charcot. We doubt, indeed, whether the neurotic disposition can be so clearly differentiated from the hysteric, as the Gulstonian lecturer would have us believe, and we further doubt, whether the liability to neurosis is altogether a matter of individual temperament. No one, be his original contribution what it may, is entirely out of danger of becoming neurotic, if by any chance his "balance of nutrition falls below the needs of his expenditure." There are, no doubt, many human "engines with a light fly-wheel, and a small furnace," whose work is habitually fitful and unsafe. But a week's want of sleep, overwork, and impaired assimilation, will bring down upon the most steady-going nervous system the sufferings and want of control which habitually distinguish the so-called neurotic. In spite of these qualifications, we think that Dr. Allbutt has conferred an important boon on medical science, by placing before his profession, in such a masterly style, an aspect of disease which has hitherto been far too generally overlooked.

We must leave the consideration of many other interesting points raised in the Gulstonian lectures, until time has been given for their more measured consideration. It would be doing an injustice to Dr. Allbutt to treat the harvest of years of work on his part without giving full time for its assimilation. But we cannot leave the subject without a few remarks upon what will doubtless be seized upon as the most pregnant sentences in his lectures—those in which he arraigns a certain school of gynæcologists, who have not been unsuccessful, as the world estimates success. It is to his credit that he should have had the courage to speak out, with all the force derived from his position, what has hitherto been hinted at only darkly. There will be few members of the profession who will be inclined to find much fault with what he has said, for the reaction against the mechanical school of gynæcology is in full swing, and the specialty is now being taken up by men of larger calibre, than many who have hitherto made their names and fortunes by it. Our only regret is that his arrows were not winged with more sober-coloured feathers. There was weighty truth in what he said, but its weight would have been more felt if the glitter of his words had been less brilliant. Our contemporary, who is always so painfully anxious to screen the smallest member of the profession from attack, has indeed found its Nemesis, in being made the exponent of a measured and deliberate crusade against a whole phalanx of its readers.

DISLOCATED SEASONS.

The phenomenal, if grateful, weather of the past week calls attention anew to the modern vagaries of Nature. In few matters indeed does she show her abhorrence of hard-and-fast lines more, than in the gradual merging of those epochs which the world has been wont to recognise under the title of the Four Seasons. And yet, in temperate climes at all events, we have been accustomed to regard their several characteristic qualities as sufficiently typical and distinctive. The time is not long past when the mention of summer recalled the notions of hayfields and sunshine as appropriately and as certainly as that of winter was attended with the idea of hard roads and skating. Lately we have changed all that, and men are beginning to ask themselves, in these days of reconstructive legislation, how long it will be before a Royal Commission is appointed for the revision of the calendar and the readjustment of the seasons. It is, however, only too probable that

people can no more be cured of bronchitis, than they can be made virtuous, by Act of Parliament; nor is this necessary, since private enterprise is so far equal to the occasion as to commend the invalid to leave England in February, and to return "not with the swallows but with the harvest," although he is permitted to consult his almanac in order to learn which is the season nominally to be credited with holding sway. It is not, indeed, that we have had to chronicle a transposition of winter and summer, autumn and spring, during the last few years: a complete *bouleversement*, attended though it would have been with numberless inconveniences in the first instance, would have produced less practically unpleasant results, than those which ensue from that too impartial mingling of all the seasons which has given to each some of the discomforts of all, and the special good qualities of none. The marked and punctual contrasts, sometimes trying but yet useful, have been lost in a neutral uniformity, or degraded into irregular, haphazard freaks of variability, too sudden to be guarded against, too short-lived to be salutary. Such a state of things may be of comparatively little moment to those who have the means and leisure to seek abroad the climatic conditions which are most agreeable or most necessary to them, and for whom the ease and rapidity of modern travelling have robbed expatriation of its old-time terrors. It is otherwise with the great majority of those healthy folk upon whom fate has imposed a stay-at-home existence. To such, this blending of the seasons involves the positive loss of a combined rest and stimulus to which they have been so long habituated that its value is only appreciated when the effects of its withdrawal become manifest.

The regular and orderly succession of typical spring, summer, autumn and winter brings to those who cannot travel a very fair equivalent for a series of changes of climates, resting and recruiting mind and body by calling into special activity different factors of the physical and mental being. Whatever more subtle influences it may possess, one most important attribute of sunlight is its power of stimulating tissue-change. Chlorophyll, for instance, will develop in the leaf-cells of the young plant under certain conditions of temperature independently of the presence of light; but the action of the latter is requisite for the due performance of those processes of absorption, digestion, assimilation, and secretion, which collectively make a healthy growth and development. Similarly, in man, under the influence of abundant sunshine, tissue-change is rapid and energetic; but when sunlight is combined with genial warmth, as in "old-fashioned summer weather," this increased metabolism can be advantageously sustained, even with a food-supply less abundant than ordinary, because the organism is at the same time less heavily taxed for heat-production. Thus while certain functions are stimulated to special activity, comparative rest is secured for others, and a moderate amount of exercise is sufficient to ensure the excretion of the products of retrograde metamorphosis. On the other hand, during bright cold winter weather an increased food-consumption is needed to make good the loss of heat; this involves the necessity of increased excretion of effete and used-up material; and this, again, is favoured by the greater and more vigorous exercise to which a healthy person is stimulated by such weather conditions. Under these circumstances the healthy body secures, and is itself favourably reacted upon by, the healthy mind. But a dull wet summer robs life not only of much of its enjoyment, but of much of its energy besides; and the man who, in winter time, wakes morning after morning to bathe in the same thick fog, or to view the same leaden sky, to hear the same steady falling of the rain-drops, and to trudge through the same muggy atmosphere over the same mud-covered pavements, must take up the day's burden less cheerily than he who wakens to breathe a clean crisp air under a clear sky, and for whom Nature has decked the world with frosted silver, or has robed it in the purest and softest of white garments. Moreover, it should be remembered that, under the conditions which we are recalling, the special characteristics of one season are not suddenly succeeded by those of another, but that each merges gradually into the next, so that the trying juxtaposition of extremes is avoided by that imperceptible transition whereby usage becomes an equivalent of second nature.

By the invalid, indeed, more equable conditions of season and temperature are commonly preferred; yet this is a state of things fraught with drawbacks and dangers of its own—especially when continuous "mild" weather is at the same time accompanied with an absence of direct sunlight—and it has a tendency to bring even the strong and healthy to the verge of invalidism. The comparative immunity secured by a mild warm winter, permitting the relaxation of those precautions which the patient has been accustomed to observe at that time of the year, is sometimes dearly purchased by the advent of "the severest March for nearly forty years,"[1] and by "summer months" unusually remarkable for variable temperatures, unseasonable coldness, and dearth of sunshine. Nor must we forget that, after all, the invalids are vastly outnumbered by the comparatively healthy, to whom this jumble of the seasons' characteristics is positively deleterious. Throughout the last autumn and winter, diphtheria and allied forms of infectious sore throat whooping-cough, and other contagious maladies, were unusually prevalent, widespread, and continuous; in other words, certain diseases which we are daily coming more certainly to regard as dependent on the action of specific organisms, flourished persistently under conditions of moisture and temperature, &c., such as might be expected to favour the propagation and development of disease-germs; while, at the same time, their victims were rendered susceptible by the same enervating climatic conditions. A long continuance of mild weather will unbrace and make even the vigorous "tender," just as the hardy plant may be made unnaturally susceptible to sudden frost by subjecting it to hot-house culture: amongst those who live normally at or just below the line of health, instead of above it—in whom, to quote Dr. Clifford Allbutt, the balance of nutrition has fallen below the needs of expenditure—the effect of such treatment is, of course, more marked and

[1] "The Weather of 1883, as observed in the Neighbourhood of London," by Edward Mawley, Member of the Council of the Royal Meteorological Society, &c.

more easily produced. The winter of 1883–4 may, indeed, be termed a democratic one, in that it has suited the pockets, and has seemed to suit the health, of the great mass of the population—keeping work open for the out-door artisan for instance, and taxing him less heavily for fire and clothing. But it has not proved an unmixed good. There are few things more suggestive in Mr. Mawley's report than the statement that the January and February of last year were remarkably mild and remarkably healthy ; but that, with the onset of severe weather (in March), the death-rate rose with a bound, and continued much above the average throughout the two succeeding months. Reading between the lines, we might say that in March and April many people paid a heavy penalty for previous indulgence in unseasonable and debilitating weather. Nature holds her balance very evenly, on the whole : warmth and primroses at Christmas may have their equivalent in respirators and pneumonia in May ; and a frostless winter will, in its way, prove as harmful as a sunless summer.

CLINICAL PAPERS.

No. VIII.—Electro-Diagnosis.

It must be admitted that medicine, as an art, has, since the beginning of its history, made singularly slow and imperfect progress in the direct cure of disease, and at the present time we are almost as helpless in the presence of a serious organic malady as our ancestors found themselves to be. It must also, however, be conceded that medicine, as a science, has, especially of late generations, made vast and important advances, and by thus augmenting our knowledge of morbid conditions has thereby indirectly ameliorated human suffering and increased the longevity of the community. Not only has our information concerning the nature of living bodies and their abnormalities been extended, but our means of detecting and differentiating various disorders have been greatly perfected. This improved art of diagnosis, although doubtless in part due to the general diffusion of knowledge, is mainly the result of the success which has attended the introduction of physical agents as a means of research. In this way acoustics, optics, mechanics, chemistry, and a host of kindred sciences have been utilised in the elucidation of purely medical problems, and the stethoscope, the ophthalmoscope, the thermometer, and many other instruments might be cited as successful illustrations of the valuable results of this procedure. By this means the condition of the chest, throat, eye, uterus, and other internal organs have been explored, and their diseases physically demonstrated, and this ocular proof constitutes a means not only of displaying their existence, but of recording them with accuracy. The employment of such methods of investigation has given precision and exactitude to a profession which was formerly uncertain and indefinite, and therefore the prey of the mystic and charlatan, and has been mainly instrumental in removing the calling of medicine from their influence, and raising it as far as possible to the level of the exact sciences.

Until comparatively recent times, there was one class of disorder which more particularly baffled all efforts in this direction, namely, diseases of the nervous system. These on account of the delicate and complicated structures and organs involved, are especially difficult to study, and give few opportunities for the succesful employment of physical agents in their investigation. Electricity has now been proved to be a potent force for this purpose, and of late years information on the subject has been greatly developed and practically applied. Unfortunately, among the general members of the profession, a knowledge of its advantages has not yet been fully understood, and, like all other innovations, its utility has been even under-valued or decried. By those, however, who appreciate the extreme difficulty in the diagnosis of many obscure nervous affections, any means which will assist in the solution of the problem, will be received with respect. That electricity suitably applied by the initiated expert fulfils this object, is not now denied by the educated neurologist, although others still continue to doubt its utility. When the stethoscope was first introduced into practice, those who were ignorant of its advantages, or incapable of practically using it, denounced the instrument as worthless, and even asserted its revelations to be fallacious. Electricity at present occupies a somewhat similar position in medical practice, and its popularity is further diminished by the complexity of the diseases for which it is applied, the expensive and complicated apparatus necessary, and the skill and manual dexterity essential for arriving at successful conclusions.

It is not proposed in this short article to enter into the manipulative, or other details connected with electro-diagnosis, which must be sought for in the text-books on the subject ; it is only possible to briefly discuss the general objects to be looked for, and the results which have been obtained. Electricity in its different forms exercises a special and peculiar influence on all the various tissues of the body, but in the diagnosis of nervous diseases we practically limit ourselves to the effects of faradism and galvanism upon the motor nerves and muscles. In health, these agents have definite and well defined actions on the two structures in question, which are readily elucidated in the human subject by the adoption of suitable procedures. In disease these are modified and altered, and it is by utilising the relations which thus exist between the two conditions that important diagnostic information is gained. The *Faradic* current, when applied to the trunk of a motor nerve, causes a tetanic spasm of all the muscles it supplies, and this remains while it continues to flow. The same takes place when a muscle is stimulated, due to the effect of the current on the intra-muscular nerves. If the nervous supply is destroyed, as in curara poisoning, this form of battery induces no contractions, showing that faradism acts on the nerves only, and through them on the muscles, and not on the muscular substance itself. The *galvanic* current also causes muscular contractions when it is applied to the nerve trunks or their terminations in the muscle, but in a totally different manner from faradism, though still according to definite fixed laws. In addition, when the entire nervous supply is destroyed, this form of current has the power of acting

on the healthy muscular fibre itself, causing its substance to contract. This takes place independent of nervous influence, and is subject also to well defined rules.

In disease, all these conditions are modified or altered. If either nerve or muscle is in a morbid condition, these characteristic reactions are changed, and, in proportion, we are enabled to estimate their tissue deterioration. Such alterations are not only of degree, or quantitative, but of kind, or qualitative, and a consideration of their nature and relations furnishes accurate data upon which to depend in diagnosis, as from the condition of the electrical reactions the anatomical state of the nerves and muscles can be inferred. This general principle having been established, the practical results flowing from its application will be obvious. In all diseases of these two important structures, direct knowledge of a definite and accurate nature is obtained both for diagnosis and prognosis, for it has been further ascertained that a precise acquaintance with the histological state of the tissues, combined with the other circumstances of the case, enables us to successfully hazard a speculation as to their probable future progress. By means of electrical tests, lesions of nerve and muscle may be discovered, their extent determined, their nature ascertained, and their course foretold. In this way, also, they may be differentiated from the many other morbid conditions, which, in practice, may readily be confounded with them. For example, in the case of weakness of a limb of doubtful origin, how difficult it frequently is to determine the pathology of the disorder! Is it an affection of the nerves, muscles, bones, or joints; is it a strain or sprain; is it rheumatism, gout, or other constitutional disorder; is it a functional neurosis; is it of spinal or central origin? On many such perplexing positions, the definite and objective revelations of electrical investigation throw a flood of light, its positive indications giving direct information, and its negative results being in themselves highly suggestive.

In addition to primary degeneration of the nerves and muscles, it has been further determined that electricity comes to our aid in the detection of certain diseases of the nervous centres. It is now generally believed that in the anterior cornua of the spinal cord, there exist those elements which preside over the nutrition of the nerves and muscles, and these are so far independent of one another, that either may be separately affected. Whatever theory is adopted to account for the phenomena, the fact remains, that in certain degenerations of this tract both nerve and muscle are disorganised, and in others, only one of them is involved; in each case the disease presenting well recognised and distinctive clinical features, running a special course, having a peculiar distribution, and characteristic termination. Among the first is the so-called polio-myelitis anterior, or infantile paralysis, in which both nerve and muscle are degenerated; and among the second is progressive muscular atrophy, in which the latter only is involved, leaving the former intact. It is therefore apparent that an electrical investigation of such cases of cord disease must give valuable aid in their diagnosis, and determine with exactitude, and in a manner unattainable by other means, their extent and distribution, their distinction from one another, and from diseases of other organs. Again, in sclerosis of the posterior cornua of the cord, of its lateral and posterior columns, and other tracts, the nutrition of the nerves and muscles always remains intact, and consequently the electrical reactions are normal, which negative signs in themselves constitute a reliable means of differentiating between this affection and diseases of the anterior cornua.

Finally, in all forms of paralysis of cerebral origin, and those due to functional disorder, the electrical conditions remain unchanged, which in doubtful cases serves to distinguish between them and those resulting from lesions of the anterior cornua of the cord, or of the peripheral nerves, or muscles. Further reflection on the subject will also indicate that even in those diseases where the abnormal electrical reactions are similar in kind, they vary in distribution; the discovery and demonstration of which may be the means of determining the nature of the disorder, whether peripheral or central, the organ affected, etc.

From this very brief general sketch, suggestive of some of the more important objects to be obtained by electricity as a diagnostic agent, the various directions in which it can be utilised may be realised, as well as the necessity for cultivating an art so important in the determination of so complex a series of diseases as those of the nervous system. It is not, however, every one who can successfully carry out such an enquiry, as it demands technical knowledge, and special manipulative dexterity. Imperfect methods of application, the old-fashioned and utterly useless procedure of roughly dabbing sponges over the skin without order or system, have led not only to erroneous conclusions, but, in consequence, to distrust of the agent employed, and neglect of a really valuable method of physical research. Although the subject is admittedly a complicated one, and has not yet been fully developed, the difficulties connected with its appliances, like most others, can be overcome by practice and study, and doubtless as our knowledge extends, and the importance of the question becomes more fully recognised, further means will be arrived at to facilitate the procedure. In conclusion, although the employment of electricity in diagnosis is strongly advocated, we must guard against a too exclusive dependence being placed on its virtues, as it is unreasonable and unscientific to anticipate everything from its revelations. Like all other methods of research, such as percussion, auscultation, thermometry, etc., it must be remembered that it is only the means towards an end, namely, that of discovering, demonstrating, and recording actual positive states; like them, it is not to be exclusively employed, but must be looked upon as an adjunct only to all the other means of enquiry with which we attack the problem to be solved. All the circumstances of a clinical case should be investigated without omission of any, and every means in our power, including electricity, should be brought to bear on its elucidation. This last, if it is only one of the aids we employ, will, in conjunction with other facts and observations, prove a most valuable auxiliary in the hands of the physician for the detection of disease. Δ.

REVIEWS AND NOTICES OF BOOKS.

Descriptive Catalogue of the Pathological Specimens in the Museum of the Royal College of Surgeons of England. Second Edition. By Sir James Paget, Bart. Vol. II. London: J. and A. Churchill, 1883.—This volume is almost entirely occupied with the sections of diseases of bones and joints, including of course the injuries to these; no less than 490 out of the 526 pages being thus occupied. The other subjects that come in for a share of consideration are of comparatively minor interest; they are morbid conditions of the blood, injuries and diseases of voluntary muscles, injuries and diseases of tendons and sheaths of tendons, diseases of bursæ and synovial ganglia, and injuries and diseases of cartilage; these are exemplified by just 100 specimens, whilst the bones and joints require for their due display no less than 1,450 preparations. The extraordinary wealth of the College in this department ceases to suprise us, when we remember that the bones and joints are *par excellence* the hunting-ground of the younger branch of our art, and that in the exercise of their craft, they are much more likely to become possessed of pathological "curios," than the physician who can obtain such rewards only when his efforts have been crowned with failure. It will be interesting for those of us who are still to the front, when another edition shall be called for, to notice how some diseases have died out and others sprung up to take their place. The old fashioned syphilitic ulceration of bone, of which there are 40 preparations is, we believe and hope, of the former class; whilst in the latter we would place such diseases as osteitis deformans, to which disease only the three specimens from Sir James Paget's well-known case, read before the Royal Medical and Chirurgical Society, are at present attributed. The exact place which the bones, now grouped under the head of infantile syphilis, will then occupy, is a little doubtful; some of M. Parrot's specimens, however, will not be able to maintain their right to be classed apart from rickets; and, indeed, from his point of view, they would not be. As of the first volume so we may say of this, that it has been brought out in a way worthy of the great Institution it emanates from, and worthy of the distinguished surgeon and able assistants who have undertaken the editorial management.

Surgical Experiences of the Zulu and Transvaal Wars; by D. Blair Brown, F.R.C.S. Edinburgh. Oliver and Boyd, Edinburgh.—This book is a reprint of some papers which originally appeared in the *Edinburgh Medical Journal*, and which we gladly welcome in their now more accessible form. English surgeons, for very many years past, have had but little opportunity of adding much to the literature of gun-shot and other wounds sustained in war, owing to the time which has elapsed since our own army was in the field. It is therefore satisfactory to find that Dr. Brown has been led to publish his experiences. There are some points on which we shall have to join issue: thus, in the "general remarks on gun-shot wounds," he states that after injury with the modern rifle bullet, he has "seen so many instances of the healing process take place without any aid, after complete perforation of a thigh or arm," that he looks "upon the fact of a sloughing occurring as unusual." An extensive acquaintance with modern bullet wounds (in the Franco-German campaign) leads us to an exactly opposite conclusion. In another point our experience does not quite coincide with the author's: he says "when the shaft of a long bone is struck by a round bullet, long fissures and splitting up into fragments do not occur in the way they do when a conoidal one has hit a like bone." The shape of the bullet has little or nothing to do with the amount of splintering: this depends on the rate at which the bullet is travelling. A bullet which strikes a bone at a low rate of velocity, whether round or conoidal, shivers the bone; while, if travelling at a high rate of velocity, it may penetrate even without any splintering at all, as witness the many cases of "Lochschüsse" which occurred in the Franco-German war. It is on the same principle that a bullet may pass through a sheet of glass without splintering it; or it may not pass through it, yet shiver it into fragments. Again, in discussing the "necessary treatment to be adopted," whether "expectant," "conservative," or "operative," he says "here, indeed, the whole specialty of army surgery comes in. Any one can lop off a leg or an arm: the schools teem with second year's students who can do this: but the thing which ought to distinguish the 'army' from the 'ordinary' surgeon, is the knowledge of what injuries should be treated according to either of the above plans." Where can Dr. Brown have gathered this impression of civil surgeons? Are they not called upon to decide questions of this kind infinitely more frequently than their military brethren? How few of the latter have any practical experience of gun-shot wounds when they first join the army, and how few ever see anything of field service at all! These "general remarks" we think, are themselves a proof of a very narrow acquaintance with gun-shot wounds on a large scale, and we fear they would not be endorsed by any surgeon of experience. "Probably no better air and climate exist than that of South Africa." We agree with our author, and we fancy that his experience and ours differ chiefly because his wounded enjoyed these paramount advantages which ours did not. We only hope that he will not be misled, and attribute his successes to the wrong source. The details of the cases themselves are interesting and instructive; they form the most useful part of the essay.

The Essentials of Pathology; by Tod Gilliam, M.D., Professor of Physiology, Starling Medical College. H. Kimpton, London.—There are now so many small works on pathology that we are at a loss to understand why the elements of this branch of medical science could not be allowed to rest undisturbed for a short time. But, we presume, on the principle that one cannot have too much of a good thing, the "Essentials of Pathology" is introduced to the profession in the hope of "kindling a thirst for pathological investigation." This fiery metaphor is, we are bound to say, not indicative of the general tenor of the work, which is characterised throughout by a greater grasp of the English language than is usually found in medical books of this stamp. The author is fairly well up to date with his facts, and states them in a plain and comprehensible manner, but we venture to offer the opinion that this small volume would be found more suitable to the nascent lecturer than to the student for whom it is intended. The arrangement of the subject-matter deviates somewhat from the usual plan, though this slight novelty is not unmeritorious, and the engravings are all very old friends. Although the reason for the existence of this book is a little obscure, we think that, as its facts seem to be correctly stated, and are laid down lucidly, it may be useful under certain circumstances.

On Bedside Urine Testing; by George Oliver, M.D. Second Edition. London: H. K. Lewis, 1884.—To make the examination of the urine at the patient's bedside not only possible but easy and accurate has been Dr. Oliver's aim in writing this little book. His test papers are now so well known that they need no praise from us. As the practical outcome of his experiments and experience, we gather that in testing for albumen, he prefers the ferrocyanide of potassium, though not the most delicate, because it does not precipitate the peptones; whilst for quantitative analysis, he recommends the potassio-mercuric iodide on account of its greater delicacy. The method of making this examination is very simple; having decided upon a certain degree of opacity as a standard, all the albumen is precipitated by means of the reagent in a given quantity of urine, the opacity of this is then compared with that of the standard, and diluted till it exactly corresponds, the opacity of the standard being of course known for each reagent. Dr. Oliver does not dispense with heat altogether in testing for albumen, and he uses the citric acid papers separately in preference to the compound papers. The indigo-carmine test papers are strongly recommended in testing for sugar, and they certainly have given in Dr. Oliver's hands excellent results. We commend this little book, and the methods of which it treats, to our readers' careful attention.

ABSTRACTS AND EXTRACTS.

THE SIXTH REPORT OF THE GERMAN CHOLERA COMMISSION.

By Dr. Koch.

The question whether the bacilli found in the bowel of cholera patients are parasites belonging exclusively to cholera, which was left undecided in my last report, can now be looked upon as settled.

At first, on account of the varying pathological appearances presented by the bowel in cholera, and on account of the large number of bacteria always found therein, it was extraordinarily difficult to discover the truth. In most cases death does not occur at the height of the cholera process, but in the reaction-period which follows immediately after, and in which such considerable changes take place in the bowel and its contents, that it is impossible from such cases alone to obtain a clear idea of the cholera process. It is not until one has had the opportunity of examining a number of uncomplicated cases, and of comparing with them cases recently attacked, that one can succeed in obtaining a true insight into the pathological relations of cholera. For this reason it was thought right to exercise the greatest caution in interpreting the discoveries made with regard to bacteria in cholera, and to reserve a definite judgment on their causal relation to the disease until we had fully made up our minds on the subject.

In the last report I was able to state that peculiar characters had been found in the bacilli tenanting the cholera bowel, by which they could be distinguished with certainty from other bacteria. Of these features the following are the most characteristic :—The bacilli are not quite like a straight line as other bacilli, but a little curved, like a comma. This curving may even be so marked that the bacilli assume almost a semi-circular outline. In pure cultivations these curved bacilli often give rise to S-shaped forms, and to wavy lines of varying length, the former of which correspond to two individuals, and the latter to a considerable number of the cholera bacilli, which have remained in connection as they continued to proliferate. They possess, moreover, movements which are very active, and may be best observed in a drop of the cultivation solution suspended from a covering glass. In such a case one sees the bacilli swim across the field of the microscope with great rapidity in all directions.

Their behaviour on gelatine is peculiarly characteristic. They form colourless colonies which, at first, look as if they were composed of tiny glittering fragments of glass. Gradually these colonies cause the gelatine to melt, and then spread themselves out to a moderate extent. In gelatine cultivations, therefore, this peculiar appearance enables one to distinguish them from other colonies of bacteria with great certainty, and to isolate them from the latter with ease. They can, moreover, be demonstrated with comparative certainty by cultivation on concave slides, as they always betake themselves to the margin of the drop of cultivation liquid, and can there be recognised by their peculiar movements, and, after staining with aniline, by their comma-like shape.

So far twenty-two cholera cadavers and seventeen cholera patients have come under examination in Calcutta. All these cases were examined for the presence of the specific bacteria, both by the help of gelatine cultivations and also by microscopical preparations, and, in most cases, by cultivation on concave slides; the comma-like bacilli were found in all, without an exception.

This result, taken together with that obtained in Egypt, justifies the conclusion that this kind of bacterium uniformly occurs in the cholera bowel.

With the view of controlling the result, there were examined in exactly the same manner 28 other cadavers (including eleven dead from dysentery), and also the evacuations of a case of simple diarrhœa, of dysentery, and of a healthy patient who had recovered from cholera, besides various animals, both healthy ones and others which had died of ulceration of the bowel and pneumonia; and lastly, we also examined water, contaminated with putrid masses. In not a single case, however, did we succeed in demonstrating the cholera bacilli, either in the stomach or bowel of the cadavers, or in the evacuations, or in the other fluids, rich as they were in bacteria. As a disease process very similar to cholera is produced by poisoning with arsenic, an animal, so poisoned, was examined to see if the comma-bacilli were present in the digestive organs, but in this case also the result was negative.

From these results the further conclusion may be drawn, that the comma-like bacilli are altogether peculiar to cholera.

As to the relation of these bacteria to cholera, I have already explained, in a previous report, that either this specific kind of bacterium is specially favoured in its growth by the cholera process, and hence combined in such a striking way with cholera; or that the bacteria are the cause of cholera, and the disease only arises when these specific organisms have found their way into the bowel. The first hypothesis cannot be accepted, for the following reasons :—It must be assumed that a man when he sickens with cholera has already this kind of bacterium in his alimentary canal, and further, inasmuch as these peculiar bacteria were found without exception in a comparatively large number of cases both in Egypt and in India, two widely separated countries, it follows that every man must be tenanted by them. This, however, cannot be the case, for, as already stated, the comma-like bacilli have never been found except in cases of cholera.

Even in bowel affections, such as dysentery and enteric catarrh, which so often pass on into cholera, they were absent. It is also to be remarked, that, if these bacteria had been so regularly present in human bodies, they certainly would have been previously observed at some time or other, which is not the case.

As, therefore, the growth of these bacteria in the bowel cannot be produced by cholera, there remains only the second hypothesis, that they are the cause of cholera. That this is indeed the case, a number of other facts attest in an unmistakable manner; above all, their behaviour during the disease process. They confine themselves to the organ which is the seat of the disease, the bowel. In vomit they have only been twice recognised, and in both cases both the appearance and the alkaline reaction of the vomited fluid have proved that bowel contents, and with them the bacteria, have obtained access to the stomach. In the bowel itself they conduct themselves as follows :—In the first evacuations of patients, and as long as these retain their fæcal character, only very few cholera bacilli are found; the subsequent watery inodorous evacuations, however, contain them in great numbers, all the other forms of bacteria almost completely disappearing from that moment, so that at this stage of the disease, the cholera bacilli form in the bowel almost a pure cultivation. As soon, however, as the attack of cholera subsides and the evacuations again become fæcal, the comma-like bacteria gradually disappear from the evacuations, and when the disease has completely passed over, are no more to be found. What is found in cholera cadavers is exactly similar. No cholera bacilli are met with in the stomach. The bowel contains them in varying numbers, according as death has occurred during the cholera attack, or after it. In the most recent cases—in which the bowel presents a uniform bright red colour, the mucous membrane is still free from extravasations of blood, and the contents of the bowel consist of a whitish inodorous fluid—the cholera bacilli are found in the bowel in enormous quantities, and almost pure. Their distribution corresponds

quite accurately to the degree and extension of the inflammatory irritation of the mucous membrane, while in the upper part of the bowel they are not usually so numerous, but increase towards the lower portion of the small intestine. If, on the other hand, death occurs later on, we find the signs of a considerable reaction in the bowel. The mucous membrane is of a dark colour; in the lower part of the small intestine it is covered with blood extravasations, and its most superficial layers have often ulcerated away. The contents of the bowel are in this case more or less blood-stained, and in consequence of renewed development of putrefactive bacteria, are putrid in character and offensive. The cholera bacteria in this stage do not reappear in the contents of the bowel, but they are still present in considerable numbers for some time longer in the tubular glands, and often also in the neighbouring tissues, a fact to which attention was first called by the appearance of these peculiar bacteria in the bowel of the Egyptian cholera cases. They are entirely absent only in those cases which die from some sequela, when the cholera attack has quite passed off.

The cholera bacteria behave, then, exactly like all other pathogenic bacteria. They appear exclusively in their own peculiar illness, their first appearance coinciding with the commencement of the disease; they increase in number proportionally to the advance of the disease; and disappear with its decline. Their seat corresponds in like manner with the extension of the disease-process, and their number is, at the height of the disease, so considerable as to be quite sufficient to explain their destructive influence upon the mucous membrane of the bowel.

It would certainly be very desirable to succeed in producing in animals artificially, with these bacteria, a disease analogous to cholera, so that their causal relation to cholera might receive ocular demonstration. In this, however, we have not yet succeeded, and it is even questionable whether success will ever be attained in this direction, because, according to all appearance, animals are insusceptible of the cholera infection. If any species of animal whatever could take the cholera, it would surely have been observed in a reliable manner in Bengal, where the infective material of cholera is met with throughout the year and throughout the land. All enquiries, however, directed to this point have met with a negative result.

Nevertheless, the demonstrative force of the facts given above is not weakened by the failure of the experiments on animals. The same phenomenon meets us, also, in other infective diseases; for instance, in enteric fever and in leprosy, two diseases in which specific bacteria also occur, but which hitherto no one has succeeded in conveying to animals; and yet the mode of appearance of the bacteria in these diseases is such, that they must undoubtedly be regarded as the cause of the disease. The same is true also of the cholera bacteria.

Moreover, the further study of the cholera bacteria has enabled us to recognise several other characteristics which are all in harmony with what is known about the ætiology of cholera, and thus must be regarded as an additional confirmation of the correctness of the hypothesis that the bacilli are the cause of cholera.

The most remarkable circumstance relative to this, is the fact that it has been repeatedly observed that when the linen of cholera patients, after being soiled by their dejections, has been kept for 24 hours in a moist state, the cholera bacilli are found to have multiplied in a most extraordinary manner. This will account for the well-known fact, that the linen of cholera patients has so often infected those persons who have to do with it. Attention having been called to this observation, further experiments were made, and it was found that the same phenomenon occurred whenever cholera dejections, or the intestinal contents of cholera cadavers, were spread upon linen or blotting paper, kept moist, and especially upon the surface of damp soil. In 24 hours the thin film of mucus was invariably found to be completely converted into a thick mass of cholera bacilli.

Another very important quality of cholera bacteria is that they die off after drying more quickly than almost any other form of bacteria. As a rule, even after three hours' drying, every vestige of life has disappeared.

Another peculiarity is that they will only grow in alkaline cultivation-fluids, even a very small quantity of free acids, which would have no tangible effect on the growth of other bacteria, delaying their development in a striking manner.

In the healthy stomach they perish, which will account for the fact that over and over again it has been found impossible to detect them in the stomach or intestines of animals, which had been fed for a considerable period on cholera bacilli, and then killed. This last characteristic, together with their slight power of resisting drying, explains what daily experience teaches us, viz., that infection so seldom follows upon direct contact with cholera patients or their ejecta. Evidently other peculiar circumstances must be present, in order that the bacilli may be placed in a position to pass through the stomach, and then to produce the cholera processes in the bowel. Possibly, bacilli can pass uninjured through the stomach, when digestion is disturbed, a hypothesis supported by what is seen in all cholera epidemics, and uniformly noted here in India, viz., that those men are especially liable to cholera, who are suffering from indigestion. Perhaps, however, some special condition under which these bacteria may occur, and which would be analogous to the persistent condition (*Dauerzustand*) of other bacteria, may enable the cholera bacteria to pass the stomach uninjured.

It is not probable, it is true, that this change consists in the production of persistent spores, for such spores have been found to retain life for months and even years, whereas the cholera poison does not remain active longer than about three to four weeks. Nevertheless, it is quite conceivable, that some other form of persistent condition exists in which the bacilli can remain for some weeks alive in a dried state, and in which they are also in a position to resist the destructive influence of gastric digestion.

The conversion into such a state would then correspond to what Pettenkofer has described as the maturing of the infective matter of cholera. Hitherto we have not succeeded in discovering such a persistent state on the part of the cholera bacilli.

OPHTHALMOLOGY.

Blindness from Retinal Thrombosis after Facial Erysipelas.—A man, aged 40 years, who had had syphilis, underwent a severe attack of facial erysipelas. On the eighth day, the sight of the right eye was impaired, and on the following day that of the left. On the next day (the tenth) he was quite blind, and on this day Dr. Knapp ("Transactions of the American Ophthalmological Society," 1883) saw him for the first time. He found swelling of the lids, and chemosis, incisions had already been made for the relief of tension, the pupils were widely dilated, and there was no perception of light. The left fundus showed a milky retina, pervaded by numerous dark, almost black, tortuous vessels, overfilled, which tapering, converged to a common centre, and had upon, and between them, many irregular dark hæmorrhages. The character of all the vessels was the same, they appeared as enlarged veins. Two days later, the veins presented the same aspect, but some were thicker, and had elliptical intumescences. Between, and crossing them, were seen thin, straighter, and red vessels (arteries), with punctate, striated, and irregular bright red hæmorrhages, whereas the older ones were dark brown. A trace of the optic disc was visible, the yellow spot could not be made out, the periphery of the fundus was whitish-red, pervaded by dark blood-vessels, amongst which the arteries were not distinguishable. Ten days after this, it was noted that the vessels were thin on and near the disc, with white seams lining a thin red thread in the centre. Two months after the onset of the blindness, the patient was quite blind, the pupils were large and immovable, the discs were white, all the upper and most of the lateral vessels were converted into white streaks, varying in thickness along their course, some quite pervious, others interrupted by white segments, and there were numerous branches in the region of the yellow spot, all white. The points upon which Dr. Knapp lays most stress, are that the sequence of events was as follows:—Compression of the

central arteries of the retinæ producing blindness, followed by thrombosis of the retinal veins, then decrease of the swelling in the orbit, or the establishment of a collateral circulation, permitting the return of a limited flow of blood into the retinal arteries, which, however, being impeded by the blocked veins, led to renewed extravasations, to thrombosis and shrinking of the arteries, and finally to atrophy of the optic nerve. The changes were not the result of neuro-retinitis.

Regular Astigmatism.—The *New York Medical Journal* (January 5th, 1884), contains a useful paper, which was read by Dr. M. Landesberg before the Philadelphia County Medical Society. The author establishes the transitory character of certain instances of regular astigmatism; and states that "the conditions under which regular astigmatism may develope are—progressive myopia, with and without spasm of accommodation; spasm of accommodation in an emmetropic, myopic, or hyperopic eye." In his first communication on this subject, in von Gräfe's "Archiv für Ophthalmologie," xxvii., 2, he gave the history of fourteen cases which had come under treatment on account of progressive myopia and various asthenopic troubles. All were complicated with regular astigmatism, which varied in degree from 1-36 to 1-10. Treatment directed to the asthenopic disorders, or to the progressive myopia, not only cured the affection proper, but also entirely removed the astigmatism, which subsided *pari passu* with the decrease of the other morbid symptoms. He has since met with thirteen additional cases presenting similar characters and course. In some of these, the astigmatism had previously been treated with appropriate combinations of cylindrical and prismatic lenses, which acted, at first, "like a charm;" but the apparent good effect soon wore off, and the children were left in a worse plight than before. Treatment directed to the accommodation disorder cured all the troubles, including the dependent astigmatism. Three of these cases are related in detail.

Visual Area in the Brain.—To demonstrate, by the aid of pathology, that the centres for vision are seated in the occipital lobes is the aim and object of a paper by Dr. Allen Starr, in the January number of the *American Journal of Medical Sciences*. This he determined to do by a study of the recorded cases in which lateral homonymous hemianopsia was a symptom; other forms of hemianopsia are neglected, because they always relate to lesions of the optic commissure or one of the optic tracts. He has collected, in all, 32 cases, and it is needless to say that a post-mortem examination was made in each of them. An analysis of these leads him to the belief that lateral homonymous hemianopsia may result from lesions in the following situations, viz., in the optic tract, the pulvinar of the optic thalamus, the fibres of Wernicke, and the white matter or cortex of the occipital lobe. A lesion in the course of the optic fibres of one side, at any point between the optic chiasma and the cortex of the occipital lobe, produces partial blindness of both eyes. He, therefore, concludes that "the occipital lobe of each side is in anatomical and functional relation with both eyes in such a manner that the like-named sides of both retinæ are connected with the like-named hemisphere. When a lesion of one hemisphere involves the optic fibres at any point, partial blindness of both eyes, and not blindness of the opposite eye, is produced." He then proceeds to the consideration of the schemes which have hitherto been propounded on the subject, viz., Charcot's, Grasset's, and Ferrier's. Charcot's idea was, that those fibres which do not decussate in the optic commissure do so in the corpora quadrigemina; Dr. Starr rejects this, partly because there has never been any anatomical evidence in support of it, partly because there is good reason for doubting whether, as a matter of fact, crossed amblyopia ever does result from lesion of one hemisphere, and lastly, because Charcot himself has dropped it. Grasset's theory makes the fibres from the outer part of the retina decussate twice, once in the corpora quadrigemina, and once in the corpus callosum; this would explain the facts of hemianopsia, but it is a very complex arrangement, and as yet has no anatomical foundation. Ferrier placed the centre of vision in the angular gyrus; but Dr. Starr points out that lesion of the angular gyrus has been recorded without any impairment of vision, and he surmises that in the experiment on the angular gyrus, which Dr. Ferrier relied upon in support of his position, he must have damaged the fibres of Wernicke which pass immediately beneath it. The hemianopsia is always more marked in the eye on the side opposite to the lesion, and for this reason Dr. Starr thinks that cases of this class may often have been called crossed amblyopia. In all the cases included in this paper central vision was retained, and this agrees with the condition observed by Dr. Sharkey in a patient recently brought before the Ophthalmological Society, in whom with right homonymous hemianopsia there was a considerable area of normal central vision on all sides of the fixation point. Lateral hemianopsia is to be regarded as evidence of a local lesion in the opposite hemisphere; it gives us no clue to the nature of that lesion, nor can we without such associated symptoms as hemiplegia, hemianæsthesia, &c., form any opinion whether the lesion be in the occipital lobe, the fibres of Wernicke, or the pulvinar.

The Lateral Associated Movements of the Eyes.—The fact that the internal rectus of one eye acts with its fellow during convergence, and with the opposite external rectus during lateral movements of the eyes, long ago suggested that it had a double nervous supply. A good deal of light has been thrown on the subject of late by Duval, Graux, Laborde, Parinaud and others. In the *Liverpool Medico-Chirurgical Journal*, Nos. 5 and 6, Mr. G. A. Woods publishes a very thoughtful paper on the subject, in which he carefully reviews the anatomy and physiology of the sixth nerve, and analyses the symptoms in one series of cases where the nucleus of the sixth nerve was destroyed or damaged by disease, and another where the trunk of the nerve was so affected. His conclusions may be abridged as follows:—the sixth nerve appears in the human fœtus about the twelfth week, its apparent origin is from the groove which separates the anterior pyramidal body from the pons Varolii, it occasionally sends a small filament to the lenticular ganglion. It is essentially a motor nerve. If the nerve be divided between its apparent origin and termination, internal strabismus on the same side alone results. If the nucleus of origin be destroyed, there follows paralysis of the external rectus, with partial paralysis of the internal rectus of the other eye. Some of the fibres from the sixth nerve nucleus pass along the floor of the fourth ventricle, parallel with the raphe, to the third nerve nucleus, and then decussate and become incorporated with the third nerve on the opposite side.

Hysterical Amblyopia.—In a very interesting paper on thrombosis of the retinal artery, to which we have recently (p. 119) had occasion to allude, contributed to the *Ophthalmic Review* (January and February, 1884), by Mr. Priestley Smith, some light is thrown on this subject. The case which we have already commented upon, was, it will be remembered, one where a young woman had already lost the sight of one eye, and was threatened with blindness in the other, from deficiency of blood supply to the retina associated with disease of the ovaries, and Mr. Priestley Smith points out that the impairment of vision in this patient's non-blind eye, bore the closest resemblance to what is found in cases of hysterical amblyopia, or "neurasthenic amblyopia" to give it its full name. The physical signs of this condition may be said to be a contracted field of vision, venous congestion of the retina, and sometimes slight œdema of the disc, and Mr. Priestley Smith's contention is that this state is the expression of an impaired nutrition of the retina, not of a central disturbance.

OBSTETRICS.

Iodine Injections in Ovarian Cysts.—Prof. Cantieri, of the Medical Clinic at Siena, relates two cases of large ovarian cysts, which were completely cured by intra-cystic injections of tincture of iodine.—*Lo Sperimentale*, October.

REPORTS OF SOCIETIES.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, MARCH 13TH, 1884.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

Living and Card Specimens.

MR. R. M. GUNN exhibited a little girl, aged eleven years, in whose retina there could be seen a direct arterio-venous communication. She had come under observation for headaches, from which she had suffered for four years. On examining the left eye it was seen that a branch of the inferior temporal vein sent an offshoot which ran directly into the superior temporal artery. Several of the retinal veins appeared to commence abruptly, doubtless having their origin in the choroid, and piercing the retina vertically.

Dr. ORMEROD showed a man, aged 44 years, suffering from paresis of the upward movement of the eyes. It was most marked in the right eye, especially when the patient looked to the right. There was vertical nystagmus when he tried to look upwards. The other ocular movements were normal, no definite neuritis. The symptoms had been present ten months, but he had a similar condition fifteen years previously.

Mr. STREATFEILD showed a man, aged 22 years, the subject of inherited syphilis, who had had disease of the bones of his face since the age of fourteen years, which had led to an eversion of the lower lid on the left side, the cornea being clear when he came under observation. A raw surface having been made beneath the lid, Mr. Streatfeild transplanted a piece of skin from the forearm, using antiseptic precautions. The upper half of this piece of skin lived, and the deformity had been very much diminished by the operation.

Mr. G. E. WALKER showed a patient whom he had treated for sympathetic ophthalmia by removal of a portion of iris.

Mr. H. POWER, in reference to this case, observed that it was evidently one of those fortunate ones where the iris alone was involved, when this was not the case, mere removal of a piece of iris would not effect a cure.

Mr. ADAMS FROST exhibited a new artificial eye. The lens had a focus of 40 millimetres, and could be shortened or lengthened at pleasure. There were two retinæ, one of ground glass graduated in millimetres, and there were two clips in front to hold lenses. The other retina represented the normal fundus.

Mr. G. L. JOHNSON exhibited an Improved Trial Frame contrived to secure greater accuracy and perfection in adjusting spectacles and estimating refraction.

Mr. A. STANFORD MORTON showed a drawing of a case of hæmorrhage into the macula, and hoped to be able to exhibit the patient at the next meeting.

Mr. F. HODGES showed a girl, with an irregular granular-looking body on the outer sclera, which had first been noticed in the outer ciliary region, its formation being followed by iritis, hypopyon, and perforation of the sclera.

Mr. NETTLESHIP exhibited the following drawings:—(1) Central areolar choroidal atrophy. (2) Central senile guttate choroiditis (Tay's Caoroiditis). (3) Syphilitic retinitis, with retinal hæmorrhages, and growth of new blood vessels from the disc into the vitreous humour. (4) Glaucoma with retinal hæmorrhages, thickening of retinal veins and obliteration of arteries. (5) Nævus (?) lymphatic, affecting the brow, orbit and exterior of the eyeball, with lamellar cataract. No cataract in the other eye.

Mr. M. M. MCHARDY showed a man with a persistent hyaloid vessel in the right eye and choroido-retinal changes attributable to inherited syphilis.

Mr. GUSTAVUS HARTRIDGE showed a drawing of a case of tumour of the choroid.

Mr. COWELL showed a woman with a new growth (presumably sarcoma) in the region of the ciliary body.

Mr. ARTHUR H. BENSON (Dublin) exhibited the following ophthalmoscopic drawings:—(1) A case of monocular coloboma of the iris, lens and choroid with a bridge of iris-tissue over the coloboma. (2) Central choroiditis, monocular, pigmented. (3) Central choroiditis and retinitis binocular, slightly pigmented. (4) Choroido-retinitis, extensively pigmented. (5) Choroiditis (myopic) extensively pigmented. (6) Thrombosis (? embolism) of central artery of retina.

Retinal Glioma.

Mr. SIMEON SNELL (Sheffield) related two cases of retinal glioma in one of which shrinking of the eyeball occurred without perforation. (1) A child, aged eighteen months, had, when first seen, at the posterior part of both eyes, a yellowish deposit, most marked in the left. A history of fits was given, and of "congestion of the brain." The opinion formed at this time was strumous deposit. During the next three months the left globe became filled with deposit, the iris infiltrated and exudation appeared in the anterior chamber. The eye next began to soften and shrink, being ultimately reduced to a small stump. Soon afterwards the right eye, which had remained fairly quiescent, began to undergo similar changes, but the eye did not shrink, and a year after the onset was excised, the growth presenting the microscopical characters of glioma. The disease recurred in the orbit, and the child died six months later. The chief points of interest in the case were, whether the disease was from the first glioma—the shrinking of the first globe was very unusual, and against the idea of glioma. Possibly his original diagnosis of struma was correct, and the glioma had been engrafted upon an already damaged eye. (2) An infant, aged eight months, presented when first seen a whitish looking growth at the posterior part of each eye, this appearance had been noticed since the child was three months old. The right eye was removed, the growth appeared to be composed of caseous material. Three years later, the left eye, being quite filled by the growth, was removed. The child died eighteen months after with a tumour on her forehead. The points to which the author called attention were, that the disease was probable congenital in both eyes, that it remained quiescent in the left eye much longer than in the other, that there was no recurrence in either orbit but on the forehead, and this was attributed to a blow.

Dr. BRAILEY mentioned the case of a child whose right eye had been removed for a tumour which was found on microscopical examination to be an undoubted glioma, the left eye had been removed some years previously, having all the appearances of pseudo-glioma, and after excision he had examined it and found no evidence of glioma, though there was a connective tissue growth in the choroid. He thought it probable that there was some close connection between these two diseases.

Severe Conjunctivitis from Whisky thrown into the Eyes.

Mr. G. A. BROWN (Tredegar) communicated this case. The patient was seen the day after a glass of neat whisky had been thrown in his eyes. Both eyes were closed, lids much swollen with yellowish, sanious semi-purulent discharge. The lower half of each cornea was covered by a diphtheritic-like membrane, which peeled off, leaving the cornea clear. The conjunctivæ were deeply injected, and there were slight ecchymoses, but no chemosis. There was much pain and intolerance of light. Under belladonna fomentations, and syringing with a warm weak solution of boracic acid, improvement rapidly took place. In two days the membrane had disappeared, and the conjunctivitis and photophobia soon subsided, so that the man was well in a fortnight.

The Treatment of Glaucoma.

Mr. M. M. McHardy recommended an unusually large primary section for iridectomy in primary chronic glaucoma. He advised as large an incision as for a full-sized cataract; measured from the outside of the puncture to the outside of the counter-puncture in a straight line, it should equal the corneal diameter. The incision was parallel with, but one millimeter behind, the margin of the cornea. The size of the section did not appear to increase the frequency of malignant glaucoma, from an advance of the lens, a catastrophe which happened in one out of thirty cases, and was then happily relieved by the spontaneous escape of the lens, without any loss of vitreous humour, 22 hours after the operation. This eye made a favourable recovery, and subsequently exhibited a far more satisfactory degree of tension than the fellow eye which had been treated since by a maximum iridectomy, but from which the lens had not been removed. The patient was exhibited. In the case of a man with recurrent subacute glaucoma, upon the return of the glaucomatous symptoms, after a very free upward iridectomy, a similar iridectomy was practised downwards; the lens presenting in its capsule was ejected during the operation, and the case treated as after an extraction, the patient making an uninterrupted recovery. A patient who had undergone these operations was shown, his best eye seeing $\frac{6}{12}$.

Mr. G. E. Walker (Liverpool) showed a man, aged 57 years, on whom he had performed hyposcleral cyclotomy, for acute glaucoma. The patient was in great pain when first seen, and had merely perception of light. His operation was the exact opposite of Mr. McHardy's, for his incision was not more than one-sixteenth of an inch long. In this case keratitis had been set up by it. He had long held that all glaucoma was inflammatory, produced by inflammation of the ciliary body, and the modus curandi must, therefore, be by rest and relief of the ciliary body. The ultimate cause of glaucoma was excessive action of the ciliary body. After cyclotomy, the tension came down very slowly, in his patient it took several weeks. He thought that iridectomy must tend to close Schlemm's canal, rather than open it. If glaucoma was due to over-taxed accommodation, then, by attending to the refraction, we ought to be able to prevent it, as surely as we could prevent small-pox by vaccination.

Mr. McHardy had examined Mr. Walker's case, and did not consider it one of primary glaucoma at all, there were many synechiæ which could not have resulted from the glaucoma. Then, too, it was a case of acute, and not of chronic glaucoma, and his own observations had dealt only with the treatment of the chronic form, almost any operation would cure the acute form. If glaucoma was due to overwork of the ciliary muscle, why did it not commonly occur in students? Also, why should atropine aggravate and not relieve glaucoma on this hypothesis?

Mr. Walker, in reply, was satisfied that the iritis was clearly secondary in his patient.

Spasm of the Ocular Muscles.

Dr. Gowers made a short communication on this subject. He commenced by pointing out that in *chorea* the head and eyes might participate, the latter so irregularly that diplopia might result. His attention had been drawn to the subject by the case of a young woman who had headache, optic neuritis, double vision, and chorea. It was thought at the time that there was some gross organic disease, but she had completely recovered. Hence the diplopia must have been due to irregular spasm of the ocular muscles. Since this case he had been on the look-out for this symptom in chorea, and found it was not very uncommon. Next he took *partial convulsion of ocular muscles*. These participated almost uniformly in unilateral convulsion. He mentioned the case of a man, aged 36, who for six months had suffered from a hot rushing sensation in the inner canthus of the left eye at the commencement of his attacks; during them there was temporary loss of consciousness, the left eye moved outwards, and remained still at this time—once the pupil was noted to be dilated. He had many attacks daily, and his vision was reduced to one-fifth. In the case of a man, aged 47, there was occasional double vision; during the attack the left eye moved outwards, the right remaining still; there was blinking. The attacks recurred daily; they lasted a few seconds only, and at the close the left upper lid drooped for a minute. In a man, suffering from Bright's disease, he had seen *convulsive nystagmus*. Both eyes were deviated strongly to the left, from time to time still more so, and there was nystagmus quickly to the left. He died with symptoms of disease of the pons, and an anæmic area was found in the right half of the pons, just above the nucleus of the sixth nerve. That the conjugate deviation was not purely paralytic in all instances was evident from this case.

Ophthalmia Neonatorum.

Dr. David M'Keown (Belfast) made an important communication on the subject of the prevention of blindness from the purulent ophthalmia of infancy. After alluding to the very serious nature of the affection, he mentioned that on the Continent statistics had shown that at the blind asylums, 40 per cent. of the inmates were blind from this cause. He thought that steps ought to be taken to impress on the public the frequency and extreme importance of the affection, and the necessity for seeking medical advice whenever a child's eyes were affected. And he thought that the best way to put these ideas into practice would be through the agency of the poor-law organisations throughout the kingdom, and he asked the Society to pass some resolutions on the subject, and to take steps to bring the matter under the notice of the Government.

Mr. Tweedy, in rising to second the resolution, expressed the satisfaction he felt that such a resolution should have been proposed, and his regret that it had not been done long ago. All who were engaged in ophthalmic practice must see a number of cases of serious impairment of sight from purulent ophthalmia in infancy, not one of which would have lost their sight if properly treated in the early stage. When seen early enough, if the cornea was clear, the case should never be lost, and the same remark applied to diphtheritic ophthalmia. Wiser views were now prevailing amongst the community, and serious ophthalmia was less common than formerly.

The President observed that the subject was one of the greatest importance, and the Society were indebted to Dr. McKeown for bringing it forward. He had considered the matter very carefully, and he did not think that the passing of such resolutions came properly within the scope of the Society, he thought, therefore, it would be better that the subject should be referred to a committee.

Mr. Frederick Mason, after alluding to the great interest that the subject must always possess for those engaged in ophthalmic practice, moved that a committee be appointed to consider the whole subject, and report to a subsequent meeting.

Mr. Nettleship seconded the motion.

The following were nominated to act as a committee:—Mr. Mason; Dr. Fitzgerald, Dr. Argyll Robertson, Mr. Carter, Mr. Priestley Smith, Mr. Nettleship, Mr. Tweedy, Mr. Gunn, Dr. McKeown, and the President and Secretaries *ex officio*.

The Therapeutic Value of Jequirity.

Mr. Arthur Benson (Dublin) gave the results of a clinical investigation into the mode and manner of action

of jequirity. He had found that the ophthalmia could be produced by (1) the fresh powdered seeds; (2) the freshly made infusion; (3) the infusion after bacilli had grown in it; (4) the infusion six weeks old, and swarming with micro-organisms of most varied types; (5) the infusion after these bacilli had ceased all motion, and had sunk to the bottom of the liquid, apparently dead. He had examined at all stages of the disease the discharges and membranes from eyes affected with jequirity ophthalmia, without ever seeing the typical bacillus. The inoculations of the discharges and membranes were entirely devoid of infective qualities. He was thus able to confirm Dr. Klein's researches. Mr. Benson used the fresh infusion made from the seeds not decorticated, but passed through a coffee-mill. He had a high opinion of the value of the treatment in granular lids, and had never seen any serious injury result from its use. In one case, there was a short attack of iritis after each application, and in others some infiltration of the cornea occurred.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 18TH, 1884.

J. WHITAKER HULKE, Esq., F.R.S., President, in the Chair.

Congenital Absence of the Femora.

MR. ROGER WILLIAMS exhibited photographs of a boy showing this condition. The legs were so short that in the upright position the child's fingers touched the ground. No trace of femur or patella, or of their muscles, could be found on either side. Measurement from the right anterior superior spine to the internal malleolus, nine and a half inches; from the left anterior superior spine to inner malleolus, fourteen and a half inches.

Mr. JOHN WOOD mentioned the case of the "man-monkey" exhibited in London some years ago. He thought it showed how very useful limbs might be, even when one section was absent, and was an argument in favour of resection of joints.

Obstruction of Trachea by enlarged Glands.

Mr. G. H. MAKINS showed a specimen taken from the body of a boy, aged three, who had measles nine months previously, followed by abscess in the neck. Respiration difficult on exertion, slight stridor, expiration the most difficult, sinus at root of right neck. The dyspnœa increased, laryngoscopic examination difficult. Tracheotomy was performed, but the chest-walls still receded, with noisy, difficult expirations; a catheter was passed into left bronchus. Mother afterwards said the child had had difficulty in swallowing. The child lived two days. At the necropsy, just above the bifurcation was an ovoid mass of caseous bronchial glands softening. The diagnosis, after the operation, was assisted by the suppuration in the neck. Compression of the trachea was rare from this cause.

Dr. SEMON laid stress on the expiratory nature of the dyspnœa. He could not see how the enlarged glands could produce this. Gerhardt had shown that the larynx remained immovable when the disease was situated at the bifurcation of the trachea; when the larynx itself was affected, it moved up and down during respiration. He had supposed there might have been a pedunculated growth sucked in further to the trachea, and so cause the expiratory dyspnœa. At present this symptom was quite unexplained.

Mr. BLACK suggested that during expiration the capacity of the chest was diminished, and thus the glands would be pressed upon.

Dr. EWART thought that turgidity of veins might locally increase the pressure. Perforation of the trachea from the pressure of enlarged caseous glands was far from uncommon.

Dr. D. B. LEES asked whether there was any dulness in the chest in front or behind.

Mr. MAKINS thought that the tendency to collection of mucus would be below rather than above the tumour, and might have helped to cause the expiratory dyspnœa. There were no physical signs of the enlarged mediastinal glands.

A Natiform Skull.

Dr. NORMAN-MOORE showed this specimen, taken from a child twenty months old, who died under Dr. Church, at St. Bartholomew's Hospital. There were four large osteophytes around the anterior fontanelle, and several smaller ones on the supra-occipital region — when fresh, these were all bright red. There were no fissures about the mouth or anus, no beadings of the ribs, and no enlargement of the ends of the long bones. The spleen weighed six ounces; microscopically, the liver, spleen, and kidneys showed no increase of connective tissue. There was no amyloid disease. The child had never had snuffles or any rash. It had whooping-cough at the age of seven months, and had been losing flesh from that time. It only weighed ten pounds at death. There were no signs of specific disease in the mother—she had had no miscarriages. The child was one of six, three of whom were living—none were stillborn. It was certainly difficult in this case to be positive as to the influence which produced the osteophytes in the skull, the case suggesting that they might be due to malnutrition without any congenital taint.

Cerebral Tumour.

Dr. ILOTT said the specimen had been taken from a man, aged 25, a painter. He had been ill six weeks—anorexia, vertigo, vomiting; he was said to have fallen sometimes. His memory was impaired; there was tremor of facial muscles and arms; there was a blue line on the gums, and the abdomen was retracted. Two days later he had violent epileptiform convulsions, followed by coma and rigidity of right arm. After death, sinuses of dura mater full, excess of subarachnoid fluid, lateral ventricles dilated, ependyma roughened. There was a tumour of centrum ovale in right frontal lobe, bulging into the lateral ventricles; it was softening. It consisted of rounded nuclei: Dr. Goodhart called it a glioma. It was very vascular.

Dr. GOODHART mentioned as an interesting point that facial convulsions were the only symptoms. It probably involved the motor convolutions near the island of Reil, and was an instance of cerebral localisation.

Porencephalie.

Dr. B. G. MORRISON showed this specimen, taken from an infant healthy at birth; soon after he was attacked with convulsions; these recurred at intervals till death at age of eight months. At the necropsy there was much excess of fluid, the brain was much atrophied and compressed; there was also hydro-rachis. The right anterior and posterior lobes showed more wasting than elsewhere; the convolutions here were brownish yellow. On the left side, at the base, were three cysts—one at apex of temporo-sphenoidal lobe, two behind it, one also on right side. The vertex showed three in left frontal lobe; on right side was an elongated cyst in the middle of marginal convolution, also one in frontal lobe. Only two on the left side communicated with each other. There were no other visceral lesions. In the cord there was incipient sclerosis. The cystic walls also showed inflammatory changes. The cyst grew by spread of these inflammatory changes, followed by degenerations. There were two groups, according to Kundrat,

viz., congenital and extra-uterine cases. The changes followed the distribution of the middle cerebral artery.

Dr. Turner had examined this case for Dr. Morrison. He found apparently nothing but the cortical layer of the brain, as if the medullary part had been absorbed. At first, there were bundles running in from this cortical portion. The shrivelled-up part might be in that state from collapse of pre-existing cysts. The degeneration in the spinal cord was probably secondary to a previously occurring affection on the brain.

Dr. Hulk White doubted whether this was a case of porencephalie, because it was supposed usually that disease of the brain was the primary cause; whereas in this case there appeared to have been cysts in the ependyma probably at first.

Dr. Ewart had reported a case to this Society in 1879, in a man, aged 30. The cyst was in the frontal lobe on the right side, which sent out prolongations leading to ampulla-like dilatations packed with cyst membrane.

Dr. Money alluded to a case of atrophy of the right hemisphere with many cysts, and marked brownish yellow pigmentation which he attributed to a hæmorrhage. The case was in the last volume of the "Clinical Society Transactions."

Dr. O'Connor asked if there was any alteration in the shape of the skull.

Dr. Morrison did not think there was any communication between the cysts. He thought the case illustrated the extra-ventricular form of the disease. He did not think they could have resulted from hæmorrhages.

Tumour of the Thalamus.

Dr. Pye-Smith showed a specimen from the body of a boy, twelve years old. He had suffered from headache, vomiting, loss of sight. There was paresis of left arm, and ptosis of left eye. It had not been easy do more than make a diagnosis of cerebral tumour. After death a tubercular caseating tumour was found, also tubercular meningitis, and tuberculosis in the mediastinum. It occupied the right thalamus alone, not encroaching except into third ventricle, but had expanded more downwards, though not to any great extent. The paresis was only in the arm, there was no loss of sensation, no complaint of numbness. There were no convulsions. The ptosis had become more marked, but was not explained. The double optic neuritis could not be referred to the disease of the thalamus. It was to be desired that the word optic should be dropped, as it was really meaningless. The case bore out the view that the function of the thalamus was very limited.

Dr. Money thought that the existence of tubercular meningitis would interfere with the localising of this tumour.

Dr. Moore said that patients often had characteristic symptoms long before the tubercular meningitis could have commenced.

Dr. Beevor asked about the ptosis, and whether the internal capsule was at all interfered with.

Dr. Pye Smith said the tubercular meningitis was very slight, and quite recent; he thought not more than of two weeks' duration. He did not think the internal capsule was implicated, it certainly was not invaded or obviously pressed upon.

Cerebral Tumour.

Dr. Ormerod showed a specimen of tumour in the right cerebral hemisphere. It was rounded, the size of a large walnut, and projected a little. It involved the posterior part of the middle and lower temporo-sphenoidal convolutions, and the adjacent parts of the annectent gyri. The tumour was fairly well defined. It was a sarcoma with scanty stroma, and cells of two kinds; one set small and fusiform, the other much larger and multi-nucleated, like cells formed in ossifying bone. The latter varied in size and shape, many being rounded, others elongated. The patient was a man, aged 41, who had had fits for eighteen months, there was momentary loss of consciousness and general tremor. Latterly he had had one much more severe one. Something seemed to burst in his head, a hissing noise followed, he turned round several times to the right, fell unconscious, bit his tongue, and was convulsed on the left side. He was deaf from ear-disease, but his wife asserted that the deafness was worse since the severe fits. Optic neuritis subsequently appeared. Some physiologists placed the centre for hearing in the temporo-sphenoidal lobe. A tumour was not useful in localising functions, but still he laid some stress on the presence of the tumour in the temporo-sphenoidal lobe.

Dr. O'Connor asked if there had been headache or aphasia?

Dr. Ormerod replied there had been no aphasia.

Calcified Angioma of the Brain.

Dr. Goodhart showed this specimen from Mr. Bevan Lewis. A woman, aged 61, suffering from acute melancholia. There was a hard gritty mass in each hemisphere, about the size of a pigeon's egg, same colour as brain, not well defined. The calcareous spicules effervesced on addition of nitric acid. The tumour seemed to be composed almost entirely of calcified vessels.

Card Specimens.

Dr. Sharkey.—Primary carcinoma of kidney.

Dr. Frederick Taylor.—Sarcomatous tumour of the pituitary gland.

Mr. R. W. Parker.—Congenital absence of rectum. The child underwent colotomy on the eleventh day, and lived eight days.

Dr. F. C. Turner.—1. Ulceration of ileum and stomach, from a case of typhoid fever. 2. Cysts of the pia mater, with deformity of the brain.

Mr. H. H. Clutton.—Congenital papilloma occupying the line of the branchial fissure.

Mr. Morrant Baker.—Carcinoma of the tongue following gummatous ulceration.

HARVEIAN SOCIETY OF LONDON.

Thursday, March 6th, 1884.

Mr. George P. Field, President, in the Chair.

Some recent advances in Pelvic Surgery.

Mr. Lawson Tait, after a brief allusion to the history of abdominal section, said that during the last seven years great innovations had taken place, the most marked of all being the increased frequency of the operation, and its employment for purposes of diagnosis. In the author's series of operations, however, mere exploration did not exceed three per cent., exploration generally leading up to operation. The chief objection urged against such operations as removal of the appendages was to the effect that they sterilised and unsexed the patient. But matting together of the pelvic organs would produce sterility, and sexual intercourse could not be tolerated where abscess of the ovary existed. Passing to the subject of suppuration, the author dwelt upon the advantages of the treatment "from above" by free opening and drainage, in contrast with the method of aspiration per vaginam, which allowed matter to collect again and again. A consecutive series of 50 cases of abdominal sections, performed between March 30th, 1879, and June 13th, 1881, was submitted to the meeting. Three deaths had occurred in the series, one due to the infection of scarlet fever, the two others occasioned by severe hæmorrhage from myomata. The cases operated on were

grouped as follows: (1) Ovarian epilepsy, (2) pyo-salpinx, (3) hydro-salpinx, (4) menorrhagia, (5) myoma, (6) chronic adhesions, (7) pelvic abscesses. In hydro-salpinx somewhat troublesome adhesions had usually been encountered. In a case of intractable menorrhagia the ovary was studded with numerous small cysts. The author adverted to the occasional development of insanity after the removal of appendages. Relief from the pain and from the nervous symptoms in chronic ovarian affections had generally followed immediately after the operation, but in one case complete relief was not obtained until eight months had elapsed. Immediate stoppage of the menses was the usual result; this was not, however, invariably the case.

Dr. GODSON remarked that swellings previously diagnosed as inflamed ovaries, could no longer be accepted as such without hesitation; whilst, as regarded treatment, many such cases under the ordinary methods remained practically unrelieved. He entirely agreed with the author of the paper that it was impossible to define strictly the parametritis or perimetritis existing in a patient by examining her, both being frequently associated in the same case.

Mr. KNOWSLEY THORNTON expressed a general agreement with Mr. Tait as to the difficulty of diagnosis in these cases; also as to the sterility following the operations, but not as to the sexual condition remaining unaffected. He had been carefully enquiring into this subject, and found that the great majority were entirely unsexed, and, putting aside rare cases of third ovary, he believed that it was purely a question of complete or incomplete removal of ovarian tissue. He had also met with insanity after ovariotomy and kindred operations. On the question of exploration in abdominal and pelvic surgery, he expressed the opinion that the doctrine might be, and often was, carried too far. As an illustration of the freedom from any risks which might be supposed to arise from the use of strict Listerism in abdominal surgery, he might mention that he had just concluded two years' ovariotomy (73 cases) at the Samaritan Hospital without a single death.

Dr. BANTOCK acquiesced generally in the views expressed in the paper. He was glad to find that the author now agreed with him that the rupture of a hydro-salpinx should not be considered as a harmless accident. Even rupture of an ovarian cyst, though often disastrous, was sometimes unattended with any evil results.

Mr. BRYANT said that cases of insanity, temporary and permanent, had come under his observation after removal of the uterus and ovaries. He was strongly in favour of the diagnostic value of exploratory operations; he considered that in intestinal obstruction a similar rule should obtain to that which guided surgeons in dealing with external hernia.

In replying, Mr. LAWSON TAIT stated that acute melancholia was the type of insanity generally observed. He corroborated the statement as to the persistence of sexual feeling by citing an instance in which a uterine tumour and the appendages were completely removed in a woman who married, and was erotic. The continuance of menstruation in some cases where every portion of the ovary had been excised, entirely negatived the theory as to an interdependence between menstruation and ovulation. The author had found more risk to life from the employment of carbolic acid than from its abandonment.

AN ENORMOUS URINARY CALCULUS.—At a meeting of the Calcutta Medical Society, Dr. Cayley gave an account (*Indian Medical Gazette* for January) of a case of calculus occurring in a native, about 50 years of age, who had for some three years suffered from symptoms of stone, which of late had become very urgent. Lateral lithotomy was attempted, but could not be executed on account of the great depth of the perinæum, and the large size of the calculus. Even after the suprapubic operation had been undertaken, its extraction was found very difficult, as it nearly filled the bladder. When removed, it weighed 25½ ounces. The patient died two days after the operation, and no autopsy was permitted.

GENERAL CORRESPONDENCE.

THE PROPOSED CONVALESCENT HOSPITAL OF THE METROPOLITAN ASYLUMS BOARD.

[To the Editor of the Medical Times.]

SIR,—In your leader of 23rd February, upon the above subject, you remark: "We think that, as the site concerned comprises more than 36 acres, the Southgate Local Board need not have opposed the erection of the hospital, even had it been intended for the use of small-pox convalescents, as well as for convalescents from fever." Your opinion, thus expressed, incidentally but entirely corroborates views which I vainly endeavoured to impress upon the managers, when the purchase of the Winchmore Hill site was brought before the Metropolitan Asylums Board, on the 5th and 19th of January last. I must premise that for many months previously the Board had been in possession of 134 acres at their Gore Farm estate, near Darenth, and that it had been practically determined to set apart 24 acres thereof for the erection thereon of a hospital or tents for about 1,000 small-pox convalescent patients. Whilst fully recognising the importance of a convalescent hospital in the after-treatment of fever-patients, my contention, however, was: (1) that until Parliament had constituted the Asylums Board the sole authority for the care of all the infectious diseases of the metropolis, one such hospital was all-sufficient for pauper requirements; and (2) that it was unadvisable and unnecessary to spend 15,000*l.* in the purchase of land at Winchmore Hill, whilst the Board had already in their possession at least 100 spare acres on their estate at Gore Farm.

In your pages I need only refer to the medical objection started against my proposition. I pointed out that, considering during the last ten years the Board had been conjointly treating cases of *acute* small-pox and of *acute* fever with comparative respective immunity on less than ten acres of ground, it was surely reasonable to suppose that *convalescent* fever and *convalescent* small-pox patients could, with perfect immunity, be conjointly treated on 134 acres of ground. Otherwise the Board were in this dilemma:—either the managers had, with the concurrence of the Local Government Board, purchased at least 100 acres too much at Gore Farm, or the 36 acres at Winchmore Hill, surrounded by more houses than the former, were manifestly too few on which to erect a Convalescent Fever Hospital. Any one conversant with the subject would admit that, with the further precautions of placing a broad belt of trees, and of erecting a high wall (to prevent intercommunication) between the two hospitals, whilst the airing grounds of each were on the distal aspects of the respective buildings, at least 1,000 of the convalescents from each of the two diseases, and their administrative staff, might with safety be located on 134 acres of land on the northern heights of Kent.

Even with a knowledge that the sewage of this number would have had to be utilised on the ground, it cannot, in the face of experience, be said that the number would have been excessive. The Beddington Sewage Farm, near Croydon, has an area of about 540 acres, of which 450 acres are regularly sewaged. The farm purifies the sewage of about 63,000 persons.[1] Moreover, in a printed letter now before me, addressed on November 29th, 1883, by Dr. Alfred Carpenter "to the Mayor and Corporation of Croydon," we are told, that, provided such plants are grown which will effect the purification of the sewage most expeditiously, one acre, if worked efficiently, should thus dispose of the sewage of 300 persons. "There is no doubt but that rye-grass is the staple which is alone fitted to bring about this object." Therefore ten acres of rye-grass always in constant growth, would have enabled the managers of the Metropolitan Asylums Board to have accommodated

1 "Inspection of Beddington Sewage Farm by Members of International Medical Congress, 1881," Dr. Alfred Carpenter.

3,000 persons on their Gore Farm estate. Furthermore, we learn that "in the years 1875–6 the excreta of at least 1,000 cases of enteric fever were utilised on the (Beddington Sewage) farm. In the majority of the cases the excreta were certainly not disinfected, and that had they been capable of setting up the disease, some of the 65 persons at that time in the employ of the Local Board must have suffered from the infection . . . . and I could not hear of any person suffering from the disease, whose avocation brought him on to the fields, and this included some 60 to 70 other persons. . . . The neighbourhood is not subject to outbreaks more than any other district. . . . ."[2]

I am, Sir, Yours, &c.,

ROBERT FOWLER, M.D.

12, *Old Burlington Street, W.*
March 8th, 1884.

EVERY MAN HIS OWN MEDICINE CHEST.

[To the Editor of the Medical Times.]

SIR,—Every reader will thank you for your notice of the discussion by the New Military Medical Society of Woolwich, as to how antiseptic surgery may be carried out on the field of battle and in war; and all will join you in the hope that some practical outcome will be the result of this discussion. But, surely, the suggestion made by Dr. Lesser in the *Centralblatt für Chirurgie*. ought to be at once "declined with thanks." He would give every soldier one cartridge-case out of every twenty, filled with antiseptic powder, and provide him in addition with a bandage soaked in spermaceti, a little absorbent wool, and a three-cornered handkerchief. He asserts that "in this way the cartridge which carries death for the enemy, carries for us the means of healing wounds antiseptically, and so saves the lives and health of our wounded soldiers." *There can be no good reason for allowing the soldier to carry medical appliances about his person if the Army Medical Department be properly organised.* The transport which can carry a sufficient field-hospital equipment, may also be calculated to bear the extra weight of antiseptic dressings, spermaceti bandages, and three-cornered handkerchiefs by the thousand. It is not well that a soldier should go into action encumbered with articles calculated only to save his own precious life. The less he thinks of his own possible wounds the happier he will feel, and he had better concentrate his thoughts on the injuries he means to inflict upon his foes. Of course the time may come when the Medical Department may be deprived entirely of all transport. In the evidence given before Lord Morley's committee, we see that Medical Transport is considered by military men quite a secondary matter, and it might easily happen that there would be none available. Lord Wolseley is entirely opposed to having "a staff of transport" attached to the Medical Department, and probably there are many combatants who would prefer to see the doctors carrying all their burdens on their own backs, and in that case the private soldiers might carry some extra weight to oblige the medical officer. But, then, one need not stop at antiseptic dressings. Why should not Tommy Atkins carry a set of splints, a pulley or two, a neat saw, and a sharp amputating knife? He might be instructed not to use the knife to cut his tobacco, nor the saw to shape a tent-peg. It is possible that he might even learn not to jamb his rifle with an antiseptic cartridge. At present Dr. Lesser's views are not suitable for an English army. We have still an Army Medical Department. It is different in Germany, perhaps, for, as Captain Baron Hoiningen Huene told the War Office Committee, "the combatant or military officers in the German army are taught the principles of sanitary science." They are instructed in *dressing the wounded* and the treatment of sunstroke, and also in the treatment of drowned men. O happy Germany which can afford to get rid of a Medical Department, and enable every combatant to be his own medicine-chest, field companion, and medical attendant! In England we must wait.

I am, Sir, Yours, &c.,

SENEX.

[2] "Transactions of International Medical Congress, 1881," vol. iv, p. 565. ("The Utilisation of Town Sewage by Surface Irrigation." Dr. Alfred Carpenter.)

SHIP SURGEONS.

[To the Editor of the Medical Times.]

SIR,—I have to thank you for drawing my attention in a leader in your edition of January 5th, 1884, to Dr. Domett Stone's letter to the *Times*; I think Dr. Stone misstates the case when he says that the superintendents of mercantile marine do not require a ship's surgeon to produce evidence of possessing legal qualifications. For my personal experience is opposed to this, in London at least, where a surgeon, if his name is not on the medical register—a copy of which lies upon the table of the shipping office—has to produce his certificate of registration for the year in which his name could not appear in the current register. Regulations may be more laxly carried out in Dundee, but I believe the case there to be as follows:—There are always a number of "chronics" at every medical school, and some of these failing to pass the "half," or any examination, often repair to the ports whence whalers sail, and enter into an agreement with the captain of one of these vessels, to give their medical services, such as they are, in return for a voyage and modicum of pay or share in the proceeds of the fishing. As no one can go to sea, not being a passenger, without appearing on the ship's articles, and as no one can ship as surgeon under the Merchant Shipping Act, without legal qualifications, the would-be dresser is shipped under the title of steward or something of that kind; and, whalers not being required to carry surgeons, no one suffers hereby unless it be, perhaps, the unfortunate patients whose case, however, must be better, take it as you will, than if only the captain or mate administered to their bodily ailments, since a number of the "chronics" are really *practical* men. I know a case in point where the pseudo-surgeon, in virtue of his experience gained in whalers, has sailed on a yachting cruise with some notabilities who chose to trust their valuable persons to the care of an unqualified person, rather than pay for the services of a registered practitioner. The skipper who takes a dresser, then, may be considered a philanthropist, for he does more than he is required to do by the law. Some smart youths, also, who have passed through the curriculum for a degree, but are prevented from taking it through being too young (as is the case with some examining bodies) now and then take trips in whalers under these conditions, or go as assistants to general practitioners. Between these two modes of employing spare time, I fail to see any difference; if allowable in the one instance, why not in the other? But there is no doubt that a mercantile marine service, as suggested by Dr. Stone, is most desirable, and it would be a most admirable check upon the ship owners, who at present can impose any conditions they please upon the unfortunate men who from choice or necessity, and that, sometimes the direst, have to seek service at their hands. Every surgeon engaged should be so through the medium of this projected association, and a few weeks of steady refusal to supply surgeons unless under improved conditions would very speedily solve the question. No large passenger vessel or mail steamer can leave a port without her surgeon, and if the companies were placed in a condition similar to that of the Army Medical Department some few years ago, it would mean immediate ruin, yet they ignore this unpleasant truth, and can actually force men to sign agreements whereby they will lose 25 per cent. of their miserable pittance when serving on a foreign station, and have to insure their lives for one or two hundred pounds at a colossal premium, which I will not here mention for reasons of my own. I predict that immediate improvement would take place were this association once started, and I shall be most happy to give it my staunch support. I can also promise that of numbers of my colleagues now abroad, and I hope, on arriving in London, to be able to confer with any gentlemen disposed to organise the service, which might well start under the

auspices of your influential medical journal. At present there are a great number of younger professional brethren who, scarcely fledged, take wing for a seaport and ship under any conditions, through ignorance and, perhaps, from the necessity of gaining a livlihood at all hazards. It would be the duty of the association to see that the conditions under which these young surgeons were shipped were of a nature best calculated to raise the status of the profession, and it would be necessary to have branches at all the ports to watch over its interests, and prevent the ignorant from being imposed upon. By means of these young surgeons, the shipowners can always grind down those who have elected to practise in ships, and the demand for willing hands to take the place of the refractory, or, as I have been myself once called, "objectionable" characters is always responded to by hundreds of applicants. The terms *refractory* and *objectionable* are applied, as I had better explain, when a surgeon does not wish to proceed to sea within eight days of his landing after a long voyage, or refuses to take charge of a ship which he knows is not so well suited to his requirements as the one he has charge of at the moment, and so on. The only difficulties in the way of forming the association are to be found in the appointment of a standing committee and officers, for the members would necessarily be always on the move; but this could be obviated easily if some of our brethren, who do *not* go down to the sea in ships, would lend their valuable assistance, in doing which they would be performing as truly benevolent an action as any of those which their modesty never permits the outer world to view, and which they yet perform almost daily. Legislation would be perfectly superfluous in the face of such an organisation for mutual protection, as all that we ask for is fair play, and if that is not served out, our services can be given to those employers whose good sense has come to their rescue in time. Hoping to hear more of the project when I arrive in London,

I am, Sir,
Yours, &c.,
A SHIP'S SURGEON.

Port Said, February 12th, 1884.

[Such an organisation as is sketched by our correspondent would have our cordial support.

ED. *Medical Times.*]

MEDICAL NEWS.

MEDICAL ACT AMENDMENT BILL.

This Bill passed through Committee in the House of Lords on Thursday afternoon. ON the motion to go into Committee, LORD BALFOUR said his objections to the Bill were fully discussed last Session, and he had not placed on the paper the same amendments as last year, but he wished to advise the House, that the objections of the Scotch Universities to the Bill were not lessened. This Bill, if passed in its present form, would tend to lower the standard of medical examination in Scotland. The DUKE OF RICHMOND was justified in saying that there was dissatisfaction in Scotland with the Bill. He trusted, however, that the Government would press this Bill to a division, and they would do so if they had a proper regard for the medical profession and were in earnest. LORD CARLINGFORD replied that it was very difficult to navigate a Bill of this kind through Parliament, as the Government had to steer through a shoal of quicksands; and the difficulties were now increased by the jealousy of the University of Edinburgh and those in the provinces. The House then went into Committee, and the Bill as amended passed through Committee.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 13, 1884:—

Charlesworth, Geo. Henry, Tonsley Hill, S.W.
Clark, Simon Prince, Cumberland Street, Glasgow.
Dodd, Walter Harry, Petherton Road, Canonbury, N.
Gould, Ernest Edward, Clifton Hill, Exeter.
Hugill, Geo. Fredk., Rosedale, Chislehurst.
Jenkins, John, Royal Infirmary, Bristol.
Menzies, Herbert Jas., Gurndur Road, W.
Robbs, Chas. Edwd., Powis Square, W.

UNIVERSITY OF CAMBRIDGE.—In May next a Professor of Pathology will be elected, with a stipend of 800*l.* a year. Soon afterwards four Medical and Surgical Lecturers will be appointed, with stipends of 50*l.*; one of them to take the subject of Midwifery. The electors to the Professorship are—The Vice-Chancellor, Sir James Paget, Dr. J. F. Payne, Dr. Burdon Sanderson, Dr. Paget, Dr. Humphry, Dr. Latham, Dr. Gaskell, and Dr. M. Foster.

THE MOSCOW UNIVERSITY IN 1883.—In this University there were altogether 2,799 students, 1,316 of these being medical. The number of professors amounted to 81, 32 of them belonging to the medical faculty. There were also eight *privat docenten* almost all of whom belonged to the medical faculty.—*St. Petersburger Medicinische Wochenschrift*, March 1st.

EDINBURGH UNIVERSITY TERCENTENERY.—The following are the names of some of the delegates who have intimated their intention of being present (asterisks indicate those who are to receive honorary degrees):—Prof. Ask, University of Lund, Sweden; Dr. Atherton, University of New Brunswick; Dr. G. W. Balfour, President of the Royal College of Physicians, Edinburgh; Prof. Ball, School of Medicine, Paris; Sir Risdon Bennett, Royal College of Physicians, London; Dr. J. S. Bristowe, St. Thomas's Hospital, London; Dr. W. B. Carpenter, C.B., University of London; Dr. D. Doijer, Prof. of Ophthalmology, University of Leyden; Mr. J. E. Erichsen, University College, London; Dr. Andrew Fergus, Faculty of Physicians and Surgeons, Glasgow; * Rev. Samuel Haughton, M.D., F.R.S., Trinity College, Dublin; * Mr. John Marshall, Royal College of Surgeons, London; M. Louis Pasteur, Académie des Sciences; Dr. E. H. Sieveking, Edinburgh University Club of London; Dr. John Smith, Royal College of Surgeons, Edinburgh; Dr. John Thorburn, M.D., Edinburgh University Club of Manchester; Prof. Rudolf Virchow, M.D., Royal Academy of Science, Berlin. The following are amongst those who receive the honorary degree of LL.D.:—Dr. Fordyce Barker, New York; Sir William Bowman, Bart.; Professor Chauveau, Lyons; Sir Andrew Clark, Bart.; Professor Donders, Utrecht, Holland; Professor Erichsen; Dr. D. Rutherford Haldane; Rev. Samuel Haughton, M.D., Dublin; Professor Hermite, Académie des Sciences, Paris; Professor H. von Helmholtz, Berlin; Sir Wm. Jenner, Bart.; Dr. Thomas Keith; Professor von Kolliker, Würzburg; Mr. John Marshall; Dr. H. Maudsley; Sir James Paget, Bart.; Professor B. J. Stokvis, Amsterdam; Professor Virchow, Berlin; and Dr. Patrick Heron Watson, M.D.

THE HOSPITALS' ASSOCIATION.—It is now arranged that the evening meetings of the Association shall be held at the rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square. The first will take place on Wednesday next, when Mr. William J. Nixon, House Governor of the London Hospital, will read a paper, "On Difficulties associated with the Administration of the Out-Patient Department, and how best to deal with them." Sir Andrew Clark, Bart., will preside. Papers on the following subjects will be contributed during the present session:—April 23rd, "How far our Hospitals should be Training Schools for Nurses." May 21st, "How the Hospital Sunday and Saturday Funds can be made more Useful to the Hospitals." June 18, "Is it desirable that Hospitals should be made Self-supporting; and, if so, to what extent?" Applications for membership should be addressed to the Secretary, Mr. J. L. Clifford Smith, at the office, 1, Adam-street, Adelphi, W.C.

Gonville and Caius College.—The Thruston Prize will be awarded at the end of the present academical year. The prize, about 54*l.* (as money, or in any other form that may be thought best) is given triennially "to that member of the College who has published, in the course of the preceding three years, the best original investigation in Physiology (including Physiological Chemistry), Pathology, or Practical Medicine." Publications or notice of publications may be sent to the Master.

Glasgow Ophthalmic Institution. — The Annual Meeting of the Glasgow Ophthalmic Institution was held on the 10th instant. The medical and financial reports of the institution are highly satisfactory. There were treated during the year 3,012 cases, of which number 385 were indoor patients, and 2,627 dispensary patients. Of the 3,012 cases treated during the year, 2,076 were cured, 84 relieved, and 52 dismissed as incurable. Many of the latter were of such a nature as to be beyond surgical skill, before applying to the institution for aid. There were 612 operations during the year. The number of patients treated since the opening of the institution in 1870, was 43,730, and of these 42,189 had been cured or relieved. The income during the year was 1,346*l.* 19*s.* 8*d.*, and after the annual outlay, a balance of 128*l.* 5*s.* 5*d.* was at the credit of the institution. Sir James Watson who moved the adoption of the report, spoke in high terms of the efficiency of the institution and of the appreciation in which it is held by the community, and especially by the working classes who are benefited by its operations; this they have shown by their contributions to its funds Indeed, during the past year, 254 workshops contributed towards its support, from which source two-thirds of the income is derived. Sir James Watson and Dr. Wolfe referred in very feeling terms to the great loss the institution had sustained in the death of Mr. James White, of Overtown, who had been the chairman of the institution since its commencement. He was a princely giver, and the head of all philanthropic movements in Glasgow and the West of Scotland.

The Odonto-Chirurgical Society of Scotland.—At the annual meeting, held on the 13th, in Edinburgh, Mr. Bowman Macleod read a paper on "Chloroform and other Anæsthetics: their relative value in dental Operations." He said he had for the longer operations taken recourse to chloroform in the interests of his patients; and, notwithstanding the percentage of recorded accidents, it was, when carefully used, the best and the most reliable abrogator of pain which we had as yet at our disposal. There was a lurking danger ever present in its use, which they must be prepared to meet, and against the approach of which they had carefully to guard; but with chloroform he had fewer cases which had caused him anxiety than with any of the other anæsthetics. In the course of the discussion, Dr. Smith related various cases in which death had occurred in operations in which neither chloroform nor any anæsthetic had been used, and said that had chloroform been used in those cases, death would have occurred all the same, and chloroform would have got the blame. He did not say that deaths had not occurred from the use of chloroform, because he believed that they would never be able to use anæsthetics—they would never be able to put man, or any other animal, into such an unnatural position as not to feel the extreme pain of taking out a tooth—without entailing a certain amount of danger.

Charitable Bequests.—Mr. James White, of Overtown, a prominent merchant in Glasgow, who died recently, has bequeathed 5,000*l.* to the Glasgow Royal Infirmary, and 5,000*l.* to the Glasgow Western Infirmary.

A "Lucid" Judgment.—The French Court of Cassation has quashed a judgment obtained some time ago by the proprietress of an hotel near the Sorbonne, awarding damages for disturbance to her trade caused by the howlings of dogs undergoing vivisection at that institution. The Court holds that the physiological experiments in question constitute a branch of instruction given by the State, and that M. Paul Bert, against whom the judgment was obtained, and other professors of every rank accomplish by such experiments a public service.

The Paris Registration Returns for 1883.—In Dr. Bertillon's report it is stated that 57,024 deaths took place during the year (9,630 of the number were under the first year), while in 1882 they numbered 58,702. This difference of 1,678 deaths in favour of 1883 was entirely due to the amelioration of the state of the public health during the second half of 1883. The births which in 1882 numbered 62,518, increased in 1883 to 64,190, being a difference of 1,609 in favour of 1883. Of these 64,190 births, 32,565 are male, and 31,625 female. They do not comprise children born dead, or who die before they are registered (*i.e.*, within 24 hours). These amount to 4,994, viz., 2,783 males, and 2,210 female children. Of the 69,184 children born living or dead, 50,567 (73·09 per cent.) were legitimate, and 18,617 (26·91 per cent.) illegitimate. The number of marriages in 1883 was 21,168.

Diphtheria at Odessa.—A general meeting of the city authorities was held on February 23rd, for the adoption of special measures in order to arrest or minimise the alarming mortality from diphtheria in Odessa and its environs. The disease has been, in a greater or less degree, epidemic in the city for the last twelve years. There are at present special hospital barracks set apart for the reception of patients, and attended by trained nurses and sisters of charity, but to these establishments the better class and wealthy citizens will not send their children. If one of a family of children catch the disease, the other members are for a time removed to the residence of friends, the patient succumbs, and the other children are brought back, and, sooner or later, further victims fall. A sum of money has now been voted, and subscriptions invited, in order to establish diphtheria hospitals, on the system of sanitary hotels, where a relative of the patient will be accommodated at a moderate charge, and a thorough system of medical inspection, removal of patients, and disinfection of the poorer and crowded domiciles will be carried out.

Health of British Army in India.—From the annual report of the Sanitary Commissioner with the Government of India, we gather that the health of the European Army was unusually good during the year 1882. As regards the Bengal Army, the results are described as favourable, whilst in the Madras Army and the Bombay Army they are said to have been very favourable. Taking the three Presidencies Bengal, Madras, Bombay, in that order, we find that the death-ratio per thousand from the chief diseases was as follows:—enteric fever 2·9, 2·09, 1·9; hepatitis 1·48, 1·72, ·81; cholera 1·28, ·82, ·63; dysentery ·77, ·36, ·18. The year was singularly healthy as regards cholera, there having been only 98 cases throughout the whole army in India, of which 61 died; not a single case of cholera occurred amongst the troops in the Punjâb, in the Hill stations, or in the convalescent depôts. Small-pox was more prevalent than in 1881, and there was a marked rise in the total number of cases of enteric fever, especially in the Bengal Presidency.

Suicides in New York.—The number of suicides during last year was 161; of these, 78 were married, 43 single, and 24 widowed or divorced. The list includes 134 males and 27 females. Nine of them were less than 20 years of age, 30 between 20 and 30, 44 between 40 and 50, 29 between 50 and 60, 7 between 60 and 70, while 8 suicides became tired of life in the eighth decade. Among the nationalities, Germans came first with 70 suicides. Shooting was the favourite method of killing, since it was resorted to in 56 instances. There were 19 hangings, 15 stabbings and cuttings, 12 drownings, and 11 falls from high places. Paris-green was in high demand among poisons, 18 suicides choosing it, while 7 took opium.—*New York Medical Record*, January 5th.

National Health Society.—The first meeting of the special committee of the National Health Society to establish a conference on "School Hygiene," during the International Health Exhibition, took place at the Society's Offices, 44, Berners-street, on the 12th instant. It was arranged that papers on various topics relating to school life and training should be read, and discussions invited. All those interested in the subject are requested to communicate with the Secretary.

GRESHAM LECTURES.—Dr. Symes Thompson will lecture on the 25th instant, and the three following days, at 6 o'clock in the International Health Exhibition.

SMALL-POX IN MADRAS.—A severe epidemic of small-pox is raging in Madras, the death-rate in the city being higher than has ever been reached since the famine.

APPOINTMENTS.

BARR, THOMAS, M.D., F.F.P.S.—Aural Surgeon, and Lecturer on Aural Surgery, to the Glasgow Hospital and Dispensary for the Diseases of the Ear, *vice* Dr. J. Patterson Cassells.

EDWARDS, JOSHUA P., L.F.P. and S. Glas., L.S.A. Lond.—Medical Officer to the Tunstall District, Wolstanton and Burslem Union.

ERSKINE, JAMES, M.A., M.B., C.M.—Assistant Aural Surgeon to the Glasgow Hospital and Dispensary for the Diseases of the Ear.

GIBB, WILLIAM, L.R.C.P., L.R.C.S.—Extra Medical Assistant to the Dundee Royal Infirmary.

GOSTLING, THOMAS PRESTON, late House-Surgeon to University College Hospital, Obstetric Assistant to the same Institution.

HYRONS, E. A., M.R.C.S.—Junior House Surgeon to the Borough Hospital, Birkenhead, *vice* Richardson, promoted.

MAYO, FRANK H., M.R.C.S., L.R.C.P. — House Surgeon to the General Infirmary, Leeds.

MEARS, W. P., M.D.—Examiner in Anatomy to the University of Durham.

NANCE, H. CHESTER, M.R.C.S., F.R.C.P., L.S.A.—Senior Resident Medical Officer to the Hospital for Sick Children, Pendlebury, Manchester.

RITCHIE, Dr.—Medical Officer to the Parish of Cathcart, near Glasgow.

SPROULLE, THOS. W., L.R.C.S. Ire., L.K. and Q.C.P. Ire.—Medical Officer to the Mirfield District, Dewsbury Union.

STEWART, C. W., M.D.—Physician on the Staff of Anderson's College Dispensary, Glasgow.

WHYTE, JOHN MACKIE, M.A., M.B., M.R.C.S., Medical Assistant to the Dundee Royal Infirmary, *vice* Duncan J. Reid, M.B., appointed Dispensary Surgeon.

WYER, OTHO F., M.D.—Honorary Physician to the Warneford, Leamington, and South Warwickshire Hopital, Leamington, *vice* Thomas A. Carter, M.D., F.R.C.P., resigned.

VACANCIES.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House Surgeon. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Candidates must be members of one of the Royal Colleges of Surgeons of Great Britain and Ireland, and Licentiates of the Royal College of Physicians of London, or of the Apothecaries' Company in London, duly registered under the Medical Act, unmarried, and under 30 years of age. Diplomas, testimonials, and copy of registration to be forwarded to the Secretary, before April 4th. The election will take place on Friday, May 2nd.

EDMONTON UNION.—Medical Officer to the South Hornsey District, in succession to Mr. John Deane, resigned. Salary, £36 5*s.* per annum.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary, £100 per annum, with furnished house, &c. Candidates' names must appear on the Medical Register, as being possessed of Medical and Surgical qualifications, and they must produce evidence of good moral character. Private practice prohibited. Candidates conversant with the Welsh language preferred. Applications, with testimonials, to be sent to the Secretary, on or before April 15th. The election will take place on April 30th.

MORPETH DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with furnished apartments, coals, and gas. Candidates must be duly qualified, and unmarried. Applications and testimonials to be sent to Mr. D. W. Greenwood, Morpeth, on or before April 5th.

REDRUTH UNION.—Medical Officer to the Guinear District, in succession to Mr. S. Farmer, resigned. Area, 10,003 acres. Population, 6,424. Salary, £32 per annum.

STRATFORD-ON-AVON UNION.—Medical Officer to the Alveston and Welford Districts, and the Workhouse, in succession to Mr. John Gairdner, resigned. Alveston District: Area, 11,798 acres. Population, 2,405. Salary, £55 per annum. Welford District: Area, 11,569 acres. Population, 2,012. Salary, £55 per annum. Salary for Workhouse, £66 per annum.

WEST LONDON HOSPITAL, HAMMERSMITH.—Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and not practising Midwifery or Pharmacy. They must attend, if practicable, at the meeting of the Medical Council, on Tuesday, 1st April, at 3·30 o'clock p.m. Applications and testimonials, to be sent to the Secretary, on or before March 31st. Applications are also invited, in the event of an Assistant Surgeon being elected, for an Assistant Surgeon.

WOLVERHAMPTON UNION.—Medical Officer to the Fifth District, in succession to Mr. William M. Hancox, resigned. Area, 848 acres. Population, 11,360. Salary, £73 per annum.

DEATHS.

ARCHER, CHARLES, M.D., Surgeon-General, late of the Bengal Medical Department, on March 17, aged 66.

AYERST, JAMES SMITH, M.D., at Stanbury, Torquay, on March 15, aged 59.

BALDING, MARGARET, eldest surviving daughter of the late James Balding, M.R.C.S., L.S.A., at Barkway, Herts, on March 13.

CORBOULD, FRANCIS JOHN, M.D., at Somers-road, Reigate, on March 12, aged 65.

FURLONG, SURGEON-GENERAL, retired, at Dolhaidd, Carmarthenshire, on March 16, aged 61.

HOGG, HENRY LEE, M.R.C.S., L.S.A., at Cleobury Mortimer, Salop, on March 3, aged 70.

HOOD, THOMAS, M.R.C.S., L.R.C.P., L.S.A., at the Château de l'Espagnerie, Wimille, Pas-de-Calais, France, on March 10.

LEREW, WILLIAM KIRBY, M.R.C.S., L.S.A., at 4, Clifton-terrace, Maida-vale, W., on March 16, aged 69.

REYNOLDS, SAMUEL, F.R.C.S., at Beckenham, on March 15, in his 88th year.

ROBINSON, JOHN, M.R.C.S., at 32, Devonshire-street, Portland-place, W., on March 16, aged 72.

TOULMIN, FRANCIS, F.R.C.S., at Upper Clapton, on March 13, in his 82nd year.

NOTES, QUERIES, AND REPLIES.

Immigration into France.—Of the 37,672,048 inhabitants of France, 1,101,090 are foreigners, of whom 432,265 are from Belgium, 240,733 from Italy, 81,986 from Germany, 73,781 from Spain, 66,281 from Switzerland, and only 37,006 from the British Isles. The number of naturalised foreigners is only 77,046.

Prof. Gross's "Hair-Tonic." — ℞ Tinct. Cantharid. ℥jss; Tinct. Capsici ℿlxx; Glycerini ℥ss; Aquæ Coloniensis ad ℥vi.—*Philadelphia Medical Reporter*, March 1.

Municipal Liberality.—At a meeting of the Court of Common Council, held in the Guildhall, the Lord Mayor presiding, the Court made, amongst other liberal grants to charitable institutions, one of £315 to the London Hospital, Whitechapel Road.

British Home for Incurables.—At the festival dinner of this excellent Institution, on Tuesday, the subscriptions in aid of the funds were announced as amounting to the large sum of £3,100.

Mr. F. S. Eve, F.R.C.S., will give his last Demonstration at the College of Surgeons, "On Some Important Points in Connexion with the Surgery of the Urinary Organs," this day (Friday) at 4 o'clock.

Dental Examinations.—The following were the questions submitted to the Candidates at the last examination for the Licence in Dental Surgery of the Royal College of Surgeons, viz.:—

DENTAL ANATOMY AND PHYSIOLOGY.—1. Give the general Dental Formula of Marsupialia. Point out the leading resemblances and differences between their teeth and those of Placental Mammals, illustrating your answer by reference to an animal belonging to each class. 2. Describe the structure and development of Cementum, comparing it with Bone. What is its general distribution upon the teeth of Mammalia? 3. Name the periods of (i.) commencement of Calcification of the several Permanent Teeth, (ii.) of Eruption of the same, (iii.) (approximately) of completion of their Roots.

DENTAL SURGERY AND PATHOLOGY.—1. If during extraction a Tooth slip into the Throat, what complications may arise? what symptoms will denote its position? and what will be the appropriate treatment? 2. Mention the symptoms on which you would rely, and the tests you would employ, in diagnosing Odontalgia from Neuralgia. 3. Describe the "transparent zone" of Dental Caries. What evidence exists as to its nature?

ANATOMY AND PHYSIOLOGY.—1. Give the precise attachments of all the Muscles connected with the Lower Jaw, exclusive of those of expression. 2. Mention the Nerves distributed to the Mouth, and state what you know respecting the functions attributed to each.

SURGERY AND PATHOLOGY.—1. Enumerate the several causes which prevent or hinder Movement of the Lower Jaw, and indicate the treatment you consider appropriate to each case. 2. Describe the Pathological and Clinical differences between an Epithelioma and an Epulis.

Dr. R. H. Gale, Anchorage, Kentucky, U.S.A.—We cannot comply with your request, and it will, perhaps, be more to the purpose to refer you to the *American Psychological Journal* for October 1883. We trust you will be able to tell us (and that we in turn shall be able to tell our readers) that the whole thing is a clever hoax, and that we, as well as other people, have been taken in by it.

COMMUNICATIONS RECEIVED—

Prof. Paget, F.R.S., Cambridge; Miss Lankester, London; Dr. Mercier, Dartford; Mr. Henry C. Burdett, London; The Clerk to the Urban Sanitary Authority, Hastings; The Secretary, Apothecaries' Society, London; Dr. Clifford Allbutt, Leeds; The Secretary, International Health Exhibition, London; Mr. I. B. Seely, London; Dr. Octavius Sturges, London; Dr. G. Coates, London; Mr. W. J. Spence, Bradford; Mr. W. J. Milles, London; Mr. J. Roche, Kingstown; Mr. Wynter Blyth, London; Dr. Shelly, Hertford; Dr. Wolfe, Glasgow; Mr. J. L. Foulds, Glasgow; Dr. Wilks, London; The Secretary, Medical Life Assurance Society, London; Dr. Veale, London; Mr. Becher, London; Mr. J. G. Thrupp, London; Mr. Chatto, London; Dr. E. Symes Thompson, London; Dr. D. Sime, London; Dr. G. B. Longstaff, London; The Hon. Secretary, Medical Society of London; The Secretary, Royal Institution of London; The Director, Anthropological Institute of Great Britain and Ireland, London; The Registrar-General, Edinburgh; The Secretary, The Parkes Museum, London; The Hon. Secretary, Clinical Society of London; Mr. Edmund Owen, London; Dr. Collier, London; Dr. Willoughby, London; Dr. Tirard, London; The Hon. Secretary, Hunterian Society, London; Messrs. F. W. Reynolds & Co., London; Dr. Burney Yeo, London; The Secretary, Statistical Society, London; The Secretary, Royal Medical and Chirurgical Society, London; Mr. H. R. O. Cross, London; The Secretary, The Hospitals Association, London; Mr. J. F. W. Bacot, Seaton, Devon.

BOOKS RECEIVED—

Annual Report of the Cumberland and Westmoreland Lunatic Asylum for 1883—Injuries and Diseases of the Jaws, by Christopher Heath, F.R.C.S.—Clinical Lectures on Important Symptoms, by Thomas Grainger Stewart, M.D.—Principes de Thérapeutique Générale, par J. B. Fonssagrives—Annual Report of the Sanitary Condition of the Township of Stretford for 1883.—The Gold-headed Cane, by W. Munk, M.D., F.S.A.—Atlas of Female Pelvic Anatomy, by Dr. Berry Hart, M.D., F.R.C.P.—Transactions of the American Ophthalmological Society—A Handy-Book on Window Gardening, by H. C. Stewart, F.R.C.S.—Use of Peroxide of Hydrogen in Diphtheria, by R. J. Nunn, M.D.—The Sanitary Chronicles of St. Marylebone—Aids to Botany, by Armand Semple, B.A., M.B., &c.—Aids to Obstetrics, by Samuel Nall, B.A., M.B.—Physiological Chemistry of the Brain, by J. L. W. Thudichum, M.D.—A Movable Atlas of the Bones and Ligaments of the Human Body, by G. J. Witkowski, M.D.—Traité de l'Affection Calculeuse du Foie, par le Docteur Jules Cyr—A Case of Extra-Uterine Fœtation, by W. Dunnett Spanton, F.R.C.S.—Mechanical Exercise a Means of Cure.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt fur Gynakologie—Le Concours Médical—Centralblatt fur Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—Maryland Medical Journal—Archives of Neurology—Popular Science News—The Philadelphia Medical Times—The Journal of the Vigilance Association—Revue de Médecine—Revue de Chirurgie—North Carolina Medical Journal—The Chemist and Druggist—Revue Bibliographique Universelle—The Journal of the British Dental Association—Journal of Cutaneous and Venereal Diseases—South African Medical Journal—The North Wales Chronicle.

APPOINTMENTS FOR THE WEEK.

March 22. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Capt. Abney, "Photographic Action."

24. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London, 8 p.m.—Dr. Cavafy, "On Erysipelas with Low Temperature;" Dr. D. W. Finlay, "On a Case of Opium-Poisoning;" Dr. A. W. Walters, "Meteorological Observations at Davos;" Dr. D. W. Cullimore will show "A Case of Post-Diphtheritic Paralysis."

25. *Tuesday*.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute of Great Britain and Ireland, 8 p.m.—The Institute will meet at 4, St. Martin's Place, W.C., when the following Papers will be read:—(1) The Right Hon. the Earl of Wharncliffe, "Exhibition of a Flint Implement from the North Riding of Yorkshire;" (2) F. G. Hilton Price, Esq., F.S.A., "Note on some Ancient Egyptian Bronze Implements;" (3) J. G. Garson, Esq., M.D., "The Frankfurt Craniometrical Code." In consequence of the removal there will be no meeting on April 8th. The next meeting will be held at No. 3, Hanover Square, on Tuesday, April 22nd.

Royal Institution, 3 p.m.—Prof. Gamgee, "Animal Heat."

Royal Medical and Chirurgical Society, 8.30 p.m.—The following Papers will be read:—(1) E. Noble Smith, "Seventy Cases of Dupuytzen's Contraction of the Fingers;" (2) H. Radcliffe Crocker, M.D., M.R.C.P., "Three Cases of Xeroderma Pigmentosum (Kaposi)." The patients will be exhibited a second time, the morbid growths having been removed.

26. *Wednesday*.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Royal College of Physicians, 5 p.m.—Dr. Hughlings Jackson will deliver his Third Croonian Lecture "On Evolution and Dissolution of the Nervous System."

27. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Parkes Museum, 8 p.m.—Mr. Watson Cheyne will give a Demonstration "Of all the Principal Types of Micro-Organisms." Sir Joseph Lister, Bart., will take the Chair. Tickets for admission can be obtained through Members of the Museum.

Royal Institution, 3 p.m.—Prof. Tyndall, "The Older Electricity."

28. *Friday*.

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society of London.—The following Papers will be read:—Dr. Finlay, "Cases of Enteric Fever, associated with Rheumatism;" Mr. Davies-Colley, "Case of Dislocation of the Spine;" Mr. Durham, "Case of Neuralgia successfully treated by Trephining;" Dr. de Havilland Hall, "Sequel to Case of Perichondritis of the Larynx."

Royal College of Physicians, 5 p.m.—Dr. James Andrew will deliver his First Lumleian Lecture "On the Ætiology of Phthisis."

Royal Institution, 9 p.m.—Prof. Osborne Reynolds, "The Two Manners of Motion of Water."

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CROONIAN LECTURES ON EVOLUTION AND DISSOLUTION OF THE NERVOUS SYSTEM.

Delivered at the Royal College of Physicians,

By J. HUGHLINGS JACKSON, M.D., F.R.C.P., F.R.S.

Lecture I.—[Abstract.]

After introductory remarks, the lecturer said, "Beginning with evolution, and dealing only with the most conspicuous aspects of it, we say of it, that it is an ascending process of development in a particular order. We make three statements, which, although from three different standpoints, are about the very same thing: (1) Evolution is a passage from the most to the least organised, that is to say, from the lowest well organised centres, to the highest least organised centres; putting this otherwise, from centres comparatively well organised at birth up to those—the highest centres—which are continually organising through life. (2) Evolution is a passage from the most simple to the most complex, again from the lowest to the highest centres. (3) Evolution is a passage from the most automatic to the most voluntary. So that the conclusion come to is, that the highest centres, which are the climax of nervous evolution, and which make up the 'organ of mind,' or physical basis of consciousness, are the least organised, the most complex and the most voluntary."

So much for the positive process by which the nervous system is "put together"—Evolution. Now for the negative process, "the taking it to pieces"—Dissolution.

The process of dissolution being the reverse of evolution, just spoken of, little need be said about it here. It is a process of descending undevelopment, it is a "taking-to-pieces" in the order, from the least organised, from the most complex and most voluntary, *towards* the most organised, most simple, and most automatic. I have used the word *towards*, for if dissolution were up to, and inclusive of the most organised, &c., if, in other words, dissolution were total, the result would be death. I say nothing of total dissolution in these lectures. Dissolution being partial, the condition in every case of it is duplex. Evolution not being entirely reversed, some level of evolution is left. Hence the statement "to undergo dissolution" is rigidly the equivalent of the statement "to be reduced to a lower level of evolution."

After making a broad division into uniform and local dissolutions, and speaking briefly of the difference, the lecturer adduced examples of dissolution, admitting that he had selected the most illustrative cases.

1. Starting at the bottom of the nervous system, the first example is the commonest variety of progressive

muscular atrophy. We see here that atrophy begins in the most voluntary limb, the arm; it affects first the most voluntary part of that limb, the hand; and first of all, the most voluntary part of the hand; it then spreads to the trunk, in general to the more automatic parts.

2. Going a stage higher, we come to hemiplegia, owing to destruction of part of a plexus in the mid-region of the brain. Choosing the commonest variety of hemiplegia, we see that there is a loss of more or fewer of the most voluntary movements of one side of the body; we find that the arm, the more voluntary limb, suffers the more and longer; we find, too, that the most voluntary part of the face suffers the most.

3. The next illustration is paralysis agitans, which I believe to be a morbid affection of the cortex in the mid-region of the brain (middle motor centres). But apart from all speculation, this disease illustrates dissolution well. In most cases the tremor affects the arm first, and most often begins in the hand, and most often in the thumb and index finger.

4. Next we speak of epileptiform seizures, which are unquestionably owing to disease in the mid-region of the brain. Taking the commonest variety, we see that the spasm mostly begins in the arm, nearly always in the hand, and most frequently in the thumb or index finger.

5. The next illustration would be by paralyses after epileptiform seizures; in these cases—so far as I have observed—the paralysis affects those parts which have previously been most convulsed; if this observation be correct, nothing further need be said, for if the epileptiform seizure illustrates dissolution, then the paralysis which follows it, as its shadow, illustrates it too.

6. Chorea is a disease in which the limbs (the most voluntary parts) are affected more than the trunk, and the arms more than the legs. In this case the localisation of the disease has not been made out; symptomatically, it illustrates dissolution.

7. Aphasia.—This well illustrates the doctrine of dissolution, and in several ways. We consider a case of complete speechlessness. (*a*) There is loss of intellectual language, with persistence of emotional language; the patient cannot speak and cannot make signs, except of a very simple kind; yet, on the other hand, he smiles, frowns, varies the tones of his voice (he may be able to sing), and gesticulates as well as ever. (*b*) The frequent persistence of "Yes" and "No" in the case of patients who are otherwise entirely speechless is a fact of extreme significance. We see that the patient has lost all speech, with the exception of the two most automatic of all verbal utterances. He retains those two words (really prepositions), which stand on the border-ground of intellectual and emotional language. "Yes" and "No" are evidently most general, for they assent to or dissent from any statement whatever; in consequence of being frequently used they are of necessity highly organised, and as a further consequence they are highly automatic. (*c*) A more important, though not more significant, illustration is, that the patient who cannot get out a word in speech, nevertheless understands all that we say to him. Plainly this is loss of a most voluntary service of words, with persistence of a more automatic service of words. We get illustrations from small corners. (*d*) As regards the utterance "No," we find three degrees of service, yet a patient may use it emotionally only—most automatic service; another patient may also be able to reply with it—a less automatic, but still very automatic, service of it (here this is some real speech). There is a still higher use of it, which some patients have not got. A patient who can reply "No" to a question may be unable to *say* "No" when told to do so. (*e*) A patient who is speechless may be unable to put out his tongue when told to do so; that he knows what is wanted is sometimes shown, by his putting his fingers in his mouth to help out the organ. The organ serves well in all more automatic operations. Here is evidently a reduction to a more automatic condition: there is no movement of the tongue more voluntary than that of putting it out when told.

So far I have spoken of dissolution affecting one side of the nervous system on different levels. Coming to the highest centres we speak of uniform dissolutions—of cases in which all divisions of the centres are subject to the same evil influence. I choose some cases of insanity. In doing this I am taking up the most difficult of all nervous diseases. I grant that it is not possible to show, in detail, that they exemplify the principle of dissolution; but choosing simple cases we may show clearly that they illustrate it in general. I take a very commonplace example—"delirium," in acute non-cerebral disease. This, scientifically regarded, is a case of insanity. In this, as in all other cases of insanity, it is imperative to take equally into account, not only the dissolution, but the lower level of evolution that remains. The patient's condition is partly negative and partly positive. Negatively, he ceases to know that he is in hospital, and ceases to recognise persons about him. In other words, he is lost to his surroundings, or, in equivalent words, he is defectively conscious. We must not say that he does not know where he is, *because* he is defectively conscious; his not knowing where he is, is itself defect of consciousness. The negative mental state signifies, on the physical side, exhaustion, or loss of function somehow caused, of some highest nervous arrangements of his highest centres. We may conveniently say that it shows loss of function of the topmost layer of his highest centres. No one, of course, believes that the highest centres are in layers; but the supposition will simplify exposition. The other half of his condition is positive. Besides his *not* knowings, there are his *wrong* knowings. He imagines himself to be at home or at work, and acts, as far as practicable, as if he were; ceasing to recognise his nurse as a nurse, he takes her to be his wife. This, we may say, shows activity of the second layer of his highest nerve-centres, but which, now that the normal topmost is out of function, is the *then* highest layer; his delirium is the "survival of the fittest states" on his *then* highest evolutionary level. Plainly, he is reduced to a more automatic (or, we may say, more familiar) condition. Being negatively lost to his present "real" surroundings, positively he talks and acts as if adjusted to some former "ideal" surroundings.

It is to be understood that each is a different dissolution. All that is meant is, that each shows a reduction from the voluntary towards the automatic, in what the centre diseased represents. If we take extreme cases, the case of progressive muscular atrophy and the case of insanity (delirium in acute non-cerebral disease), we say that the two are alike, because in each there is reduction to a more automatic condition, and we say, too, that they are unlike since the parts of the nervous system morbidly affected are exceedingly different.

I have so far almost ignored the distinction between nervous states and mental states. Now, if the case of insanity be considered as a series of mental phonomena only, it would be absurd to compare, or even to contrast, it with progressive muscular atrophy, which is a series of physical phenomena only; but no difficulty can arise if it be understood that insanity or "disease of the mind" is, with medical men, disease of the highest nervous centres, revealing itself in a series of mental phenomena; we compare and contrast disease of the highest centres with disease of certain anterior horns (some lowest centres), revealing itself in atrophy of muscles. But, acknowledging this, it may be said that the two things are so exceedingly different, that it is frivolous to

compare or even to contrast them. Yet no one denies that each is a morbid affection of the central nervous system; this being granted, the rejoinder to those who insist on their extreme unlikeness is that the lesion in one is at the very bottom, in the other at the very top of the central nervous system; two lesions cannot possibly be farther apart in the central nervous system

I next speak of different depths of dissolution. The deeper the dissolution, the shallower the level of evolution remaining. I take in illustration some of the eight cases. Of hemiplegia, owing to lesion of the internal capsule, there are three degrees or depths (of course the division into three degrees is arbitrary). In the first degree there is some paralysis of the face, arm, and leg; in the second degree there is more paralysis of these parts, and in addition there is a greater range of paralysis — the patient's head and eyes are turned from the side paralysed. Here is illustrated what I call "compound order." The difference between the two degrees is not that in the second there is more paralysis only, nor that there is a greater range of paralysis only, but in both respects; there is more paralysis of the parts affected in the first degree, and extension of range of paralysis to parts beyond them. An adequate doctrine of localisation has to account for such increase of paralysis in compound order. Then in the third degree of, or rather beyond, hemiplegia there is universal immobility. In this condition the patient has lost consciousness, and this loss may be said to explain why he does not move the "other" or "second" side of his body; but this explanation is obviously verbal. I admit other difficulties.

I now speak of degrees of epileptiform seizures, as illustrating depths of dissolution. There are degrees of these, from spasm of the thumb and index finger to universal convulsion. That these degrees are compound is very evident. The first stage of the fit is, to speak roughly, that the arm is a little affected; the second stage is that the arm is more affected, and the face a little; the third stage is that the arm is most affected, the face much, and the leg a little.

Degrees of dissolution were illustrated by taking a larger range of cases of aphasia from slight defect of speech to entire loss of it. It was insisted on that in each case the symptomatic condition was double—that there was a negative and a positive element. To recognise this was particularly important in cases sometimes called "defect of speech;" the patients not saying what we call the right words was alone owing to the disease—the dissolution; his saying the wrong words was owing to activity of healthy nervous arrangements—to activity on the lower level of evolution remaining.

THE CRYPTOGAM GROUP.

A Students' Lecture.

By JONATHAN HUTCHINSON, F.R.S.,
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Gentlemen,—It has been said that there are three hundred and sixty-five different diseases of the skin. You need not, however, be in the least discouraged by this suggested multiplicity of maladies, nor yet by the very numerous names which have been invented for them. A little industry and, if we can get it, a clear plan to begin with, will, I feel sure, make the successful study of skin diseases of great interest, and by no means difficult.

In the first place, you must get rid of the notion that these so-called diseases are really individual maladies, wholly separate and distinct from each other. They are no such thing. In nine cases out of ten, the names have been given to modifications of processes of disease, which are due to something peculiar in the patient's constitution. It is scarcely possible for us, when we are observing the varieties which disease presents, to make too much allowance for the inborn differences in different persons; and in the study of skin diseases, more, perhaps, than in any other subject, we have constantly to remember that it is not alone the influence which has been brought to bear from without, with which we are dealing, but the vital and structural peculiarities of the person upon whom these influences have been brought to bear. In many cases individual peculiarities may give a definite tendency to disease, as, for instance, when a strumous constitution is inherited, or that peculiarity of vascular organisation which gives a tendency to chilblains. In each of these cases the peculiarity of the person gives a direct and definite tendency to disease, and may be thus suitably be spoken of as its predisposing cause; or, if you prefer it, you may speak of the constitutional peculiarity as a diathesis. Thus, everything which is strumous is produced in part, at least, by the strumous diathesis or peculiarity in the individual, although as contributory, or perhaps what are known as exciting causes, injuries, defects in diet, exposure to hardships, and the like, may have taken important shares. We must never forget that diseases, as we see them, are seldom the result of a single cause; but that, commonly, there is a sort of partnership of various influences of which we witness the joint or compound result. Never let the fact, that a disease has received some special name, mislead you into forgetfulness that you have still to study and to recognise its causes. We study causes and their results, and in classifying diseases we ought to classify them in relation to cause and not to mere external or internal resemblances.

Even in cases in which the principal or direct cause of the malady may be supposed to be always of one and the same nature, we shall still witness, from differences in the constitution of the recipient, very remarkable variations in the result. The specific poison which, when introduced into the human organism, gives rise to the disease which we know as syphilis, is probably as special and specific in its nature as are the seeds of clover or wheat; but, although in essentials the results of its implantation are always the same, yet the limits of variation in severity and in external character are very wide indeed. In one person an eruption, it may be consisting of nothing more than a dozen little scaly spots, which never give him the slightest trouble, may be all that happens; whilst another almost dies with an eruption of ulcerating blebs which cover his whole skin. The difference is not in the poison, it is in its recipient. These differences in the individual are sometimes so strange, and render him liable to such very peculiar and almost outrageous manifestations of disease from apparently simple causes, that they pass quite out of the range of ordinary methods of explanation. Just as there are those to whom the very smallest quantity of mercury, opium, or belladonna acts as the most virulent poison, so are there others in whom the virus of syphilis or of varicella may produce results of the most exaggerated intensity. To rare conditions of extreme susceptibility of this kind we give the name of idiosyncrasy. In endeavouring to interpret the phenomena of skin disease, especially of its rare forms, I shall have constantly to remind you of the power of idiosyncrasy, and to ask you to believe that we are witnessing, not the effects of some new and very peculiar kind of cause, but simply the action of common causes in very peculiar individuals. No two persons are alike, and some, although in the enjoyment of, in the

main, excellent health, are still the subjects of peculiarities of organisation, which place them quite apart from almost all others. When a person cannot distinguish between the leaves of a cherry tree and its ripe fruit, excepting by their form, we say that he is "colour blind"; and we believe respecting this colour blindness that it must depend upon some undiscovered peculiarity in his retina or in his central centre of vision. It is convenient to give to such a condition, hypothetical, I admit, but still almost certainly present, the name structural idiosyncrasy. You will see that we mean by idiosyncrasy something far more exceptional and abruptly marked than those conditions which we should name structural peculiarities. The difference is, however, in degree only; idiosyncrasy is merely personal peculiarity in its intensest form. When we see a face covered with acne spots, we know that in all probability there exists in that individual, as a personal peculiarity, a large development of the sebaceous glandular system. And some forms of acne may be said to be possible only to those who possess, as matter of original endowment, thick, coarse skins. To conditions, however, which are so common as these, we should not think of applying the term idiosyncrasy.

I have spoken thus in detail as to the importance of remembering the possible existence of personal peculiarities, because I feel sure that, unless we do so, we shall constantly encounter problems for which there is no possible solution, and shall be naming as diseases, and thinking of them as if they were in some way complete in themselves, conditions which have no business whatever to take such rank, but which result simply from the action of everyday influences upon persons who have inherited special peculiarities of function or of structure.

It may be well, perhaps, next to say a few words as to the anatomy of the skin itself as modifying the conditions of disease. You must try and get into the habit of thinking of the skin by the aid of the microscope. You must constantly remember that it is a very complex organ, possessing great elaboration of structure, and including in its substance an immense number of microscopic viscera, which may, at any time, become actively engaged in the production of disease. A papilla, or a group of papillæ, may take on a tendency to overgrowth, a sebaceous gland may become choked by its own secretion. A nerve corpuscle may become hyperæsthetic, or a leash of nerve filaments may suffer neuritis. I mention only a few of the possibilities in the way of variety of structural disease which may happen in the skin. You must be constantly forcing the mind to take cognisance of the actual existence, in each little portion of skin, of these varieties of structure; and constantly asking yourselves, when looking at a portion of skin in a state of disease, which of its special structures it is which is mainly involved. I must leave you to master this anatomical knowledge for yourselves; but let me impress upon you that it is of extreme importance.

According to the classification which I have proposed, that is, grouping skin diseases in relation to their causes, or at any rate (so far as we can discern them) in relation to their natural affinities, we will now proceed to describe them in their several families. The one which I think should be mentioned first, on account of the simplicity and sameness of its cause, is that which is due to the invasion of vegetable parasites. We have under this head, a little group of maladies which are very definite in their nature; they are modified to some slight extent by the age of the patient, and by the peculiarities of his tissues, but scarcely, if at all, by his state of health. They occur to the robust as well as to the feeble, and they are not to be cured, not even, perhaps, in any material degree influenced, by internal remedies or by diet. They are from beginning to end local, induced by local contagion, and to be cured by local medication. If ringworm gets into a school, it will, unless special precautions be taken, affect every child in it, and will run its course in each without any material modification from different states of general health. We may take Ringworm as the type malady of this group, for it is by far the most common. It is caused by the implantation of a fungus which consists of spores and jointed threads, which grow in the epidermis, in the lining membrane of the hair follicles, and which flourish with the greatest vigour in the hairs themselves, especially in the soft succulent hairs of young children. The presence of this fungus is revealed by the brittleness of the hair, which results in a breaking off of the hairs at a short distance from the scalp; leaving a patch which is not actually bald, but is covered only by the broken stumps of hairs, and by bran-like scales of epidermis. If you have once seen a ringworm patch, you can never again mistake it, if at all well characterised. The patches are almost always round, unless made irregular by the coalescence of two or more at their margins; and the stumps of the hairs upon them have lost their lustre, and look like broken tow.

It is not at all always that ringworm is well characterised, nor is it the same in its features in all stages of the same case. Sometimes the rings are ill marked, and only a few of the hairs break, and in these the chief feature to be noticed is the accumulation of epidermic scales. Without the aid of the microscope these cases cannot be distinguished from common pityriasis. By the help of the microscope, however, the diagnosis is almost always easy, you have but to put the hairs or epidermis upon a slide with glycerine or liquor potassæ, and the demonstration of the presence of spores and mycelum will place the matter beyond all doubt. Although I have denied that the general health exercises any material influence on ringworm, yet it is to be admitted that personal peculiarities do so. Children of black, strong, hard hairs suffer much less from it than others, and it is a well-known fact that at a certain age the hairs cease to be liable to its attacks. It cannot be said that the liability to ringworm ceases, for in adults, at all periods of life, we occasionally see this affection, but the fungus confines itself to the epidermis, and does not grow in the hair, and it flourishes only on certain parts of the body, whilst it avoids the scalp. These parts are for the most part the armpits and the regions adjacent to the perinæum; here it covers large well-margined areas, which look more like eczema than they do like common ringworm of the scalp, and which have from that feature got the name of eczema marginatum; the fungus is, however, that of common ringworm, and there can be no doubt as to the identity of the disease. A lady consulted me on account of an eruption on the labia and thighs, from which she had suffered for a year. I noticed that it was abruptly margined; on examination with the microscope found plenty of fungus; she told me that it had begun whilst she had been engaged in dressing her daughter's head for ringworm.

The skin disease in closest alliance with ringworm is that named Chloasma or liver spots, or pityriasis versicolor, or, best of all, tinea versicolor. In this disease we have abruptly margined yellowish brown patches, developed for the most part symmetrically on the chest, abdomen, back, and upper parts of arms. The patches are but very slightly scaly, and their peculiar colour is their principal feature. On account of it they are very frequently mistaken for syphilis. You are aware that Sidney Smith avowed his belief that blue-coat boys turned into quakers, alleging that he had never seen a quaker boy or a blue-coat man, and that precisely at the age when the one ceased to appear the other began. Now ringworm and pityriasis versicolor

stand in the same relation to one another, we never see the one in children, and we never see the typical form of the other in adults; ringworm is very rarely witnessed later than the age of fourteen or fifteen, and exactly at this point of life do young people become liable to chloasma. I suspect, however, that the relationship is not only seeming, but real; and that although the two diseases look very different, they really depend on altered forms of the same fungus. Over and over again I have known nursemaids who had the care of children suffering from ringworm develop chloasma on the chest. I show you here a drawing of some patches which I produced when a student on my own chest by the contagion of scales from a child with ringworm. In certain minor features the cryptogam in the two cases differs in its mode of growth, but I have really no doubt as to the possibility of its transmutation, and practically, therefore, of their identity. The age of liability as to chloasma, as well as ringworm, is limited; it develops freely in adults, but is rarely seen after middle life. Several conditions certainly render the skin much more susceptible. It prefers the parts which are covered by the flannel vest, and but seldom extends beyond them; those who sleep in their vests, and who use soap and water sparingly, are the most liable to be affected by it. But when once it is well established, cleanliness will certainly not cure it. I have been told that in Norway, where woollen is universally worn next the skin, and where, among certain classes, it is the custom not to change it for many weeks together, chloasma is exceedingly common. To make the microscopic diagnosis of chloasma, you have but to scrape with your pen-knife the epidermis from a patch. It is curable, with the greatest ease, by immersion of the body in a sulphur bath, or by the use of any one of the numerous lotions which destroy vegetable parasites.

I have kept the most interesting of the cryptogamic skin diseases to mention last. Being a rarity, it is in some respects of less practical interest to you than those of which we have just spoken; in severity, however, it far exceeds them, and your interest in it may be increased by remembering the fact that if you fail to cure it in an early stage, it will torment its victim through his whole life. When I was a student at the York County Hospital, I saw my first case of favus—a man who had then been in many workhouses and many jails, whose scalp was almost bald and covered with favus crusts. He had had the disease from early childhood: it had prevented his attending school, and hindered him from obtaining occupation. The odour of mice was so strong and loathsome that no one would willingly associate with him. At different periods, ten or fifteen years later, at St. Bartholomew's Hospital, and at the Hospital for Skin Diseases, I met this same man, and the poor fellow was still uncured of his favus. Every hospital sent him out well after a few weeks of treatment, but the cure never lasted more than a month.

The facts respecting favus are briefly these. Like ringworm and chloasma, it is produced solely by contagion, by the implantation of a fungus on the skin of a previously healthy child, although it may continue on, as we have just seen, into adult periods; yet, like ringworm, it begins almost without exception in childhood. Its fungus can grow on the naked skin as well as on the scalp; but, like ringworm, it is usually easy of cure on all other parts but the scalp. The explanation of this is the same in both cases, that the fungus hides itself in the deep follicles of the large scalp hairs, and there escapes the influence of the parasiticide applications which you employ. Favus differs much from ringworm in its external appearances; instead of producing simply a breaking up of the hair and epidermis, attended with slight shedding of epidermic scales, it grows into thick masses of fungus material upon the surface of the skin. These masses may be a quarter of an inch or more in thickness, and although at first they may take the form of cups, from being developed in hair follicles, yet by the coalescence of these cups great irregular masses of crust may be produced, which may cover almost the whole scalp. Not only may they cover the scalp, but in neglected cases they may cover the whole body. There is, I believe, in the Museum of St. Thomas's Hospital the portion of the skin of a boy who died of favus, which involved almost the entire surface. Such extension, however, cannot happen unless the patient has been grossly neglected. These favus crusts are peculiar, and resemble nothing else; they do not consist of pus, nor of epidermis, and they are not in the least sticky. If you take a little, and rub it between the fingers, it will break up like so much half-dried putty. Their colour is yellow, and they have a disgusting odour—that of a cupboard which mice have frequented. I have made the diagnosis of favus by the odour alone within a few minutes of a patient entering a room amidst a crowd of others. Some, however, smell but little, and it is to be noted that mice vary very much as regards this particular odour, and that mice are liable to favus, and not unfrequently die of it. I have seen a poor mouse encrusted with favus from mouth to tail until it could scarcely move. Possibly, when the odour of mice is unusually bad, it is because some of the colony are suffering from this disease. I have known several cases in which there seemed good reason to believe that children had contracted favus from mice. I have known many in which no doubt could be entertained of its having spread from child to child. Inoculation experiments, performed by students upon themselves, have also repeatedly succeeded. Thus there can be no doubt that favus is contagious, and that it spreads solely by contagion. But, at the same time, it is to be noted that it does not spread easily. It is like a plant which is difficult of propagation, but which flourishes well when once it has taken root. The difficulty of transmission explains its rarity—if it were as easy of contagion it would be far more common than ringworm, for it is far more difficult of cure, and therefore more protracted. Possibly the friability and non-adhesive quality of its crust explain the rarity of its transmission from one subject to another. Be this as it may, you must not expect in English practice to see more than three or more cases of favus in the course of your lives.

In France it is far more common. With us it is a disease which affects only the very poorest and most neglected. There has been some debate as to whether favus is in any sense scrofulous, or in connection with low health. I feel sure that it is not so in the least, having seen it more than once affecting a whole family of children of sound constitution. When severe, it induces ill-health, and causes chronic enlargement of the glands, and thus it is easy to make a mistake between effect and cause. And now a few words as to treatment of this really terrible malady. If you make the diagnosis correctly when it is just beginning, there is no difficulty in stamping it out. You must clear away the crusts, and apply a parasiticide, or if the patch be on the scalp, I am not sure it would not be wise to cauterise with nitric acid; on other parts this is not necessary. If the patch be small, and on the naked skin, it is got rid of very easily. I once admitted a child into this hospital with a group of three or four beautiful crusts of favus newly formed on the side of its chest. I intended at my next visit to demonstrate the case and give a lecture on the disease, but the nurse considered it a matter of cleanliness to clear away the cups, and when the time for the lecture came there was nothing to be seen. I believe we used

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nothing more than a little ammonio-chloride ointment, and no favus ever grew again.

The cryptogam of favus, being exceedingly abundant, is demonstrated with the greatest ease. Its spores and threads are much larger than are those in ringworm and chloasma. I ought to have told you, in speaking of ringworm, that it occasionally affects the nails: the same is also true of favus. In ringworm the growth takes place in the nail substance, which it splits up and renders opaque and fibrous; but in favus the growth is under the nail, which becomes lifted up by a mass like yellow putty. Both affections are rare; I have myself seen but a few cases of ringworm in the nail, and only one of favus.

With these three diseases, ringworm, chloasma, and favus, we finish our list of the cryptogamic affections of the human skin. Let me repeat that they are all contagious, and spread by contagion only, and are quite incapable of spontaneous development. Let me also emphatically state my belief, that none of them require any predisposing conditions, excepting youth. In all of them the first beginning of the growth is at a point, and from this point the fungus spread out at its edge, until a rounded area is involved. In ringworm only is there any tendency to the formation of rings, and in it, in spite of the name, this condition is exceptional; patches, not rings, are its ordinary condition. It is convenient to have one name for the whole family, and the name which has been adopted is that of *tinea*. Tinea favosa, or lupinosa, means favus. Tinea versicolor denotes chloasma; and tinea tonsurans, ringworm. But employing the word tinea with this signification, we must get out of the habit of speaking of tinea tarsi, for the chronic inflammation of the roots of the eyelids—to which this latter name was formerly applied—has nothing to do with the presence of a cryptogam. Let the term tinea be wholly restricted to diseases which we believe to have been solely and wholly caused by the growth of a vegetable mould on the skin. Very interesting botanical questions arise as to the relationship and differences of the cryptogam present in these several diseases. But upon these I must not enter. We distinguish them under the microscope by the size of the threads and spores, and by the arrangement of the latter. But it is, as I have already hinted, by no means certain that they are not varying forms of the same fungus. They have received, however, different names, and by these we must know them. Professor Schönlein, the discoverer of the cryptogam in favus, has been honoured by having the fungus named after him the "Achorion Schönleinii." That of chloasma is named "Microsporon Furfurans," and that of ringworm, "Trichophyton Tonsurans."

Before we leave the subject of the vegetable parasites which flourish on the skin, it may be well that we should give our attention to another malady, respecting which it is yet doubtful, whether or not it ought to be classed with them. In many features it resembles ringworm; but its patches are not branny and covered with the stumps of tow-like hair, but are perfectly bald, white, glossy, and smooth. Like those of ringworm, however, they begin at a point and spread out at their edges, and produce round coin-like patches, which by coalescence may constitute great areas of irregular shape. It has been named hastily, tinea areata, or, more wisely, alopecia areata. The latter name involves no theory of cause, but simply states that baldness occurs, not difusely, as in the senile form, but in abruptly margined areas. It is exceedingly difficult to believe otherwise than that these round patches of baldness scattered about the scalp, and spreading at their edges, are due to some local cause; and usually there is nothing whatever in the state of the patient's health to suggest any other theory. Alopecia areata, or area, occurs, like ringworm, usually to young people, though by no means restricted to children. It comprises the period of life during which both ringworm and chloasma occur. It is extremely rare to see it begin after middle age. The reason for hesitating to place it by the side of ringworm, is that in ninety-nine cases of the hundred it is impossible to demonstrate the presence of any fungus by the microscope. The affected hairs wither at their bulbs, and then fall out; but neither in the shrunken bulb, nor in any part of the shaft, can you, as a rule, detect any fungus; nor is any to be found by scraping up the epidermis, or blistering the patch. The disease further differs from ringworm in that it is almost incapable of spreading by contagion. You may let a patient with alopecia areata go to a boarding school, and it is a hundred to one that nothing will occur to make you regret it. This non-contagiousness is, however, not absolutely without its exceptions, nor is the absence of fungus. Now and then you will see the disease apparently spread by contagion, and now and then microscopic observers will discover a fungus, which, excepting in size, differs but little from that of ringworm. There are other curious facts which seem to connect the two maladies. Thus, it is common for alopecia areata to occur on the scalps of young adults, who had in childhood suffered from ringworm, and this may happen after an interval of ten, fifteen or twenty years. In my own practice it has certainly been the rule, rather than the exception, to receive this history. Then, again, it is by no means uncommon to see cases in which the conditions of alopecia and ringworm are mixed, or in which one child suffers from ringworm, and another, probably an older one, shows the characteristic conditions of the other disease. I confess that I cannot shake my mind clear of the seeming lesson of these facts, and despite the absence, for the present, in the vast majority of cases of any microscopic proof, I suspect that alopecia areata is a true tinea. The impossibility of discovering any other cause, and the fact that its subjects are generally in excellent health, seem to add plausibility to this hypothesis. It may be that the fungus grows only in the deeper layers of the skin, and thus eludes observation. We are bound, however, for the present to admit that we have no real knowledge as to the nature of this malady. It is a very troublesome and annoying one, and often happens just at the age when its ravages are the most vexatious to its victim. I have seen a young lady in splendid health, and in all other respects well fitted for the full enjoyment of life, burst into tears as she took off her wig, and disclose the fact that she had not a single hair on her scalp; and I have known members of the other sex, who were chagrined almost beyond endurance by the disappearance in succession of scalp, hair, beard, whiskers, eye-brows, and eye-lashes. The fact that it is not attended by any failure of health seems to make it the more annoying.

Leaving, then, as we must, in utter doubt, the question as to the true pathology of alopecia, there are yet a few facts which must be stated as to its clinical history. It is very rare in young children, but about the age of ten it begins to get common. It now and then occurs in the course of syphilis. But this may be easily a mere coincidence. It usually begins on the scalp, but in men it is not uncommon for it to attack first the beard or whisker. A single isolated patch is usually first discovered, but after a while many other patches, it may be at a considerable distance from each other, make their appearance. Sometimes it extends over the whole body, and denudes the patient to his last hair. The eye-lashes are usually the last to fall; and, if recovery takes place, the first to come back again. When it extends over the body, it does so still in the form of patches, which spread at their edges; there is never, or scarcely ever, any diffuse thinning of the hair to be observed. It is not difficult by the use of blistering or

the use of irritating ointments to make the hair grow again. But even after a luxuriant crop has been produced, and retained for months or even years, a recurrence of the alopecia may happen. All these facts seem to my mind to point to a local cryptogamic origin. It is possible, though not very probable, that there are different forms of the disease, and that some are local and others not so. You must remember that the baldness which follows fever, and other states attended with great debility, is always a diffuse thinning, and never assumes the areate character. Ringworm is often observed in the lower animals, especially in calves; but I am not sure that alopecia areata is ever witnessed in them. In one case, however, in a calf whose portrait I now show you, the patches of baldness were not in the least like those of ringworm, but were exactly those of area.

CLINICAL LECTURE ON THE OPHTHALMIA EPIDEMIC IN GREENOCK.

By J. R. WOLFE, M.D., F.R.S.E.,

Surgeon to the Glasgow Ophthalmic Institution, Lecturer on Ophthalmology in Anderson's College.

Since July, 1883, a number of cases of conjunctivitis from Greenock have applied at this institution for treatment. They were all of a severe form, tending to involve the tarsi, cornea, iris and deep structures. As they were all of that pernicious type, I called your attention to the fact, expressing my apprehension that Egyptian ophthalmia must be prevailing in that locality; for, indeed, we seldom meet with a succession of such severe cases in this country. The form with which we usually have to deal is trachoma, that is the existence of granulations consisting of sago granules which generally take months or years to develop. They are associated with pannus—superficial vascular inflammation of the cornea leading to gradual degeneration of the corneal epithelium, and afterwards of the anterior elastic layer, and in progress of years, the tarsi become affected, giving rise to entropion. These conditions are of slow and insidious development. Suppuration, when it does occur, is scanty.

The cases just alluded to were at the initial stage, accompanied by profuse suppuration and hypertrophy of the papillæ with furrows in the conjunctivæ palpebrarum in which pus lodged, the cornea suppurated very rapidly, the iris in some cases adhered to the lens capsule. Another remarkable feature was, that the upper lids, instead of being inverted, were on the contrary inclined to eversion, presenting a slight degree of lagophthalmos, owing to the great swelling at the conjunctival *cul-de-sac*, and the distension of the lids. At the first glance this might have been mistaken for gonorrhœal inoculation, and from the outer aspect of the eye for diphtheritic conjunctivitis, for the upper eyelids were œdematous, distended and glistening. But the absence of diphtheritic patches, the nature of the discharge, and also the fact that both eyes were affected at the same time, as well as several members of a family attacked simultaneously and in both eyes, precluded the idea of gonorrhœal inoculation. The *ensemble* of the symptoms justified our apprehension of the serious nature of the epidemic. At last I was asked to see the ophthalmic surgeon of the Greenock Infirmary, who had himself unfortunately become a victim of the affection. There was in his case œdema of the lids and hypertrophy of the papillæ, while the conjunctivæ of the lids presented several sulci, within which was lodged purulent string-form discharge. The iris of the left eye had become slightly implicated. In this condition he had been for two months previous to my visit.

The cases which came under our notice here from Greenock, and for the report of which I am indebted to Dr. A. T. Thomson, were as follows:—

Case I.—V. L., aged 35 years, blacksmith, applied on the 21st July with purulent conjunctivitis of both eyes, œdema of the lids and conjunctivæ, and hypertrophy of the papillæ, which had existed for some months previous. In the left eye had commenced the formation of sago granules.

Case II.—C. D., aged 22 years, went into the Greenock Infirmary for injury of the right eye. He became infected, and when he applied here on the 20th September there was present trachomatous pannus, and degeneration of the cornea, and notwithstanding removal of the injured eye, shrinking took place. He was dismissed incurable.

Case III.—R. P., aged 31 years, police-constable, applied for treatment here on October 3rd, with chronic conjunctivitis and extensive granulations in the lids of both eyes. Complained of great pain in the supra-orbital region. There was considerable lachrymation, with intolerance of light, a sensation of sand or grit in the eyes, and swelling of the lids at their edges.

Case IV.—J. R., aged 2 years, was brought here for treatment on October 3rd, on examination it was found that the right eye was lost, and the left in considerable danger. There was profuse suppuration, and swelling of the eyelids; the eyelids were so swollen and heavy that the child could not raise them unaided. You noticed the rapid change towards recovery which, by means of the treatment adopted, took place a few days after admission, and continued until the patient was discharged cured, with the one eye.

Case V.—H. R., aged 50 years, policeman, applied for treatment on 29th October. He suffered from granular lids with central opacity of the cornea, and anterior adhesions in the left eye. It is worthy of note that Case III. lodged with this patient, who became infected through contact.

Case VI. — J. A., aged 14 years, sailmaker, applied here for treatment on November 2nd. There was present deep ulceration of the right cornea, and superficial ulceration in the left. There was profuse suppuration and enormous œdema of the eyelids. Extensive furrows of the conjunctivæ palpebrarum were noticed, when the lids were raised, with a copious discharge of greenish yellow pus, there was so much ecchymosis that the corneæ were deeply buried in the swollen conjunctivæ. There was total inability to raise the lids. Rapid improvement took place, and you observe that now there remains only a slight degree of chronic conjunctivitis.[1]

Case VII.—M. C., aged 7 years, applied here on November 16th for treatment. Both corneæ were in a state of deep ulceration, which, however, did not progress so far as to cause perforation. The conjunctival suppuration was profuse. You noticed the amount of blepharo-spasm which we had to deal with in this case. The patient rapidly improved and recovery took place, leaving behind, however, a slight opacity of the corneæ.

Case VIII.—A. C., aged 5 years, was brought here for treatment on November 16th, with granular conjunctivitis, with the characteristic sago granules. There was a general haze over the corneæ, with copious purulent discharge.

Case IX.—Mrs. C., aged 29 years, mother of the above, suffered from chronic conjunctivitis, the result of inoculation from her child. There was in her case

[1] This patient presented himself again on February 14th, and although the conjunctival swelling has greatly disappeared, there still remains a slight eversion of the lids.

also suppuration with œdema of the lids, which, however, rapidly disappeared under treatment.[2]

Case X.—M. F., aged 3 years, was brought here for treatment on December 1st. She suffered from profuse suppuration in both eyes. The corneæ were almost out of sight, from the overlapping swollen conjunctivæ, eyelids very œdematous, which when raised allowed the pent-up pus to gush out. This case also made a most rapid recovery, and was dismissed cured.

Case XI.—Mrs. G., aged 35 years, came here for treatment on December 2nd, with granular conjunctivitis of a pronounced form. There were extensive furrows in the conjunctivæ, in which pus was lodged. Improvement began to take place after a fortnight's treatment, and she was ultimately dismissed cured.

Case XII.—J. McJ., aged 67 years, applied here for treatment on December 19th, with suppurative conjunctivitis, similar to Case III., which improved under treatment, and was ultimately discharged cured.

While in Greenock I visited the Infirmary to see the hygienic condition of that place. I found a mother and two children labouring under the same affection, all of them presenting œdema of the eyelids, with slight eversion, profuse suppuration, and in the case of the mother the corneæ were opaque. In one of the children the cornea of one eye was sloughing, and in the other child, although the corneæ had so far escaped, the iris had begun to adhere. This family may be considered as presenting a type of the epidemic, namely, profuse suppuration of the conjunctivæ of both eyes, œdema of the eyelids, with the upper lids hanging over the eye-balls and slightly everted, and a tendency to sloughing of the cornea, and adhesion of the iris. In the majority of cases there is no time for the formation of sago granules. This neoplasm, or inflammatory product, is only formed in a chronic and long-protracted process, or, indeed, they may be considered as a residuum of the affection.

Origin of the Epidemic.—On account of the virulent type of the cases which came under our notice, I directed the attention of the Provost of Greenock to the epidemic, stating that the disease had probably been introduced by sailors or soldiers returning from Egypt. In examining also the sanitary condition of the infirmary I thought it incumbent on me to add that I had long been of opinion that country hospitals were not suitable for the treatment of eye diseases, and that my inspection of the Greenock Infirmary had satisfied me that it was no exception to the rule. When it can possible be had, a separate hospital for this department is always desirable, or, at least, a separate wing ought to be devoted to it, in towns in which it is wished to preserve a close connection between it and the general infirmary. I thought this statement the more necessary, because public bodies are proverbially dilatory in dealing with such questions. I had the satisfaction of receiving the thanks of the Provost for having publicly called attention to that circumstance, as public opinion will enable the authorities to overcome existing difficulties and take active steps in putting the ophthalmic department of that hospital on a satisfactory footing.

Treatment. I.—The course of treatment which we have adopted was regulated by the circumstances of each case. During the suppurating stage we recommended warm poultices during the first 24 hours, also a collyrium boracis to wash out the whole of the conjunctival sac, and when we found this to be insufficient for the moderation of the purulent discharge, the mitigated nitrate of silver, in solid form, and the solution of atropine were substituted, and the case treated as an ordinary one of blenorrhagia. The application was repeated every day, or every second day, according to circumstances.

II.—In cases of hypertrophy of the papillæ the conjunctivæ palpebrarum were scarified freely, and then fomented with warm water in order to encourage bleeding, then syrup of tannin was applied to the surface.

III.—When sago granules had already appeared, they were removed by friction, as in cases of trachoma. Constitutional treatment, nourishing food, and mild laxatives, plenty of open air exercise when the weather permitted.

IV.—We took the precaution to have all these cases isolated, being strongly of opinion that quarantine, proper ventilation, and cleanliness are essential to the eradication of the disease. Warm baths twice a week were also ordered.

The authorities of the Greenock Infirmary have carried out my recommendation with regard to clearing the hospital wards of all the eye cases, and procuring temporary accommodation elsewhere for the indoor patients.

[2] This patient was seen on February 29th, with slight conjunctival redness.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

BRADFORD INFIRMARY.

STATISTICS OF AMPUTATIONS DURING FIFTEEN YEARS, ENDING 1883.

By WM. JAS. SPENCE,
House Surgeon.

In recording the results of amputations performed at this institution during the past fifteen years, I have been unable to give the percentage of deaths under the separate headings (primary, secondary, and for disease). This detracts from their value considerably; but, even with this omission, I think the totals will be sufficiently interesting to warrant publication.

Statistics of operation, like the following, can only be an approximation to the truth; so many accidents, which it is impossible to represent in tables, have a determining influence in the ultimate success of the cases. Take, for example, the fatal case of amputation of shoulder joint—the patient was severely injured about the thorax, his ribs being driven in, this set up inflammation, which resulted in suppuration and ultimate death. Had the injury to the arm, which necessitated the amputation, been the only one, in all probability the patient would have recovered. Many of the primary amputations are on patients suffering from multiple injuries, many of them in themselves sufficient to cause death, independently of the operation.

The success of secondary operations also often depends upon influences extraneous to the disease, or, at any rate, the local manifestations of it which determined the operation. The amputation of foot, the cause of death which is put down as due to tubercular disease, had almost recovered from the operation—the stump was almost healed—when pulmonary complication carried off the patient. These all tend to show that the results greatly depend upon the particular case, or class of cases, which the surgeon has to deal with.

I do not propose to enter into the question of treatment as affecting results. I myself am in favour of Listerism, and it is a significant fact that there has

been no death from erysipelas or pyæmia during the past three years, when amputations have nearly all been treated antiseptically.

The death-rate from amputation of leg, compared with that of other parts, is high; I can only account for this by the supposition that the class of cases has been unfavourable for operations. The more serious operation of amputation of thigh has been remarkably successful.

During the fifteen years ending 1874, there were fifteen double amputations for accident at Guy's Hospital, of which only two recovered. The same operation here has been much more successful—there have been four recoveries out of seven cases. The fatal cases were amputations of both legs; the recoveries were leg and thigh (two), both legs, and leg and arm. Taken as a whole, the death-rate, compared with other hospitals, is an exceedingly low one.

Amputations performed upon in-patients at the Bradford Infirmary during the past fifteen years.

Amputations.	Total.	Primary.	Secondary.	For Disease.	Result.		Death-rate per cent.
					Recovered.	Died.	
Of fingers and parts of hands	194	151	9	34	190	4	2·01
Of hand	11	8	1	2	11	–	–
Of fore-arm	36	27	1	8	35	1	2·77
Of arm	74	56	8	10	65	9	12·16
At shoulder joint ..	3	2	–	1	2	1	33·33
Of toes and parts of foot	50	25	3	22	49	1	2
Of foot	51	2	2	47	46	5	9·80
Of leg..	80	36	12	32	62	18	22·5
Of thigh	89	29	5	55	75	14	15·73
Totals	588	336	41	211	535	53	9·01

Of the four deaths tabulated under amputation of "fingers and parts of hand," two were due to erysipelas, one to pyæmia, and one to pleuro-pneumonia. The eleven amputations of hand were all successful. The death after amputation of fore-arm was due to pyæmia. Three of the fatal cases, after amputation of arm, were due to pyæmia, two to shock, and one to abscess of lung in connection with fractured ribs. The fatal case of amputation at shoulder joint was complicated with wound of lung and emphysema. The death under amputation of "toes and parts of foot" was the result of pyæmia. Of the five deaths after amputation of foot, two were due to gangrene, one to tubercular disease, and one whilst under chloroform.

It will be seen that there were eighteen deaths after amputation of leg (an unusual number compared with the deaths after amputation of other parts). Of these, two died from pyæmia (one a double amputation), three from gangrene, two from shock (both double primaries), one from tetanus, and one from tubercular disease.

Six of the amputations were primary and double, three of which died, and three recovered. There has been no death from erysipelas or pyæmia for three years.

Lotion in Severe Contusions. — Dr. Hewson, who resides in a town of Texas, where accidents from saw mills and lumber works are frequent, communicates to the *Philadelphia Medical News*, February 23rd, the formula of a lotion, which he says he has found of great utility in treating the severest contusions:—℞ Sodæ Hyposulphit. ʒiv, Acid Carbol. Cryst. ʒss, Glycerin. ʒij, Aquæ Oj. A cloth well saturated in the solution to be kept constantly applied to the part.

Medical Times and Gazette.

SATURDAY, MARCH 29, 1884.

The Government Medical Bill passed through Committee in the House of Lords, on Thursday se'nnight, without any opposition, and after criticism of only the very mildest and most courteous character. Lord Balfour, of Burleigh, and the Duke of Richmond warned the Government that the Scottish Universities are still dissatisfied with the measure; they still protest strongly against their alumni being obliged to pass the final examination of the Medical Board, as well as the final examinations for graduation; and they consider that arrangement unworkable and inexpedient. The two noble lords also stated, that there is a feeling in Scotland that an undue preponderance has been given by the Bill to Edinburgh and the Edinburgh schools; and they predicted that the measure would meet with much opposition and hostile criticism in the House of Commons. Neither of them, however, suggested or proposed any specific amendments; and the Duke of Richmond strongly urged the Government to use, in the interests of the public and the profession, every effort to pass the Bill this Session, observing, that if the Government were really in earnest about the matter, they ought to find no great difficulty in passing it before many of the measures now before the country.

Lord Carlingford, in reply to this appeal, said he should be deeply disappointed if the Bill was not carried this Session; and that he also felt very strongly that it was the duty of the Goverment to take every means in their power to secure that result; but he did not venture to state that the Government as a body take that view. In Committee he proposed and carried an amendment altering somewhat the constitution of the Medical Board for Ireland. In recognition of the force and justice of a remonstrance from the King and Queen's College of Physicians in Ireland, an additional representative on the Board is given to that body, thereby restoring to it the position given it by the Bill of 1883, and making its representation equal to that of the Royal College of Surgeons in Ireland, each body electing three representatives. Then, as that change made the voting power of the Corporations equal to that of the Universities and the Board, the latter bodies also are given one more representative, to be elected by the University of Dublin and the Royal University of Ireland collectively. The Universities will thus have seven representatives on the Board, and the Corporations six. This method of "allocating" representatives seems to be a favourite device with the Government; but it does not appear to have met with much favour in Scotland; and it may be doubted whether such patchwork will please the Irish authorities any better At the instance of Lord Carlingford also the following sub-section was added, as an offering, we suppose, to the great fetish uniformity, to Clause

19, which imposes upon the Medical Boards the duty of regulating a course of medical education, and the preliminary and previous examinations, viz., "Any scheme under this section shall be passed in such manner as to secure, so far as is practicable, between the several parts of the United Kingdom, a substantial equality of standard as respects education and examinations." This task will, however, present no difficulties to Medical Boards competent to frame, as the Boards are bound to frame for the final examinations, schemes that shall secure, as far as possible, in each division of the Kingdom, not only an equality of standard, but also "an equality of capacity for testing proficiency!"

The Report of Amendments on the Bill was received and agreed to in the Upper House on Thursday the 27th, and the Bill now goes to the Lower House, when it may again lie blocked till the end of the Session; or, should it escape that fate, will meet with much rough handling. The cry for "direct representatives" on the Medical Council having been granted by the Bill, attention is now called to the "humiliating position" in which these representatives, in common with the Crown nominees, are placed in being relegated to the Medical Council only; and a demand is made that they shall have seats on the Medical Boards also. Oliver Twist will always be with us; that classical type will never cease out of the land. But all who really desire an end to the wearisome and injurious agitation for medical reform, and are, therefore, ready to accept even an imperfect measure, should remember that a very little determined opposition will deprive the present Bill of all chance of becoming law. This will certainly not be forgotten by any of those who object to the Bill as doing more than is really needed, but we would express the sincere hope that such opposition will be conspicuous by its absence.

The debate in the House of Commons on recruiting last week exhibited a wonderful confusion of opinion. "The Colonels" were convinced that England had no army at all, and declared that a company of old soldiers of the type that served twenty-five years ago, would march through a regiment of the present day! Lord Hartington pointed with pride to the conduct of one young soldier in the Soudan, and other legislators quoted the opinions of the Duke and Lord Wolseley, who said different things at different times and places! Luckily, as medical men, we are not called upon to estimate the value of these opinions, but there are a few *facts* which may be usefully noted. As a matter of fact, Lord Hartington had to complain last year of a deficiency of numbers; but he boasts this year of having adopted *measures* which have procured the largest number of recruits ever enlisted in time of peace. We can guess at some of these measures, when we find that recruits *can* be taken between five feet four and five feet five, who are not required to weigh more than 120 lbs. A youth of these modest proportions would have to carry in war time a load of 51 lb. 1 oz., and at the end of a day's march might find himself face to face with a man of thirty, weighing between eleven and twelve stone, and averaging five feet eight inches in height.

We do not venture for a moment to express any opinion upon the point. If the doctors employed on the recruiting service are of opinion that the lads who enlist at present are all likely to develop into athletes, we have not another word to say. But we should have a most decided opinion of our own, if we knew that the doctors were tampered with, and were forced to make their medical opinions square with the requirements of the War Office. Mr. Childers boasted last year, that once when recruits came in too fast, the authorities, as a *first step, required that the medical examining officers should be more strict.* Can it be possible that when recruits come in too slowly, the medical officers should be required to be *less strict?* If so, the medical examination of recruits is but a farce, and England loses all guarantee, that her boy-soldiers shall be healthy boys. Lord Hartington would lead us to imagine that they are particularly healthy, but a statement may be true, and yet misleading in the extreme. He said upon inspection of the recruits enlisted, only the small number of 200 or 300 were objected to as unfit. The general reader might jump to the conclusion that the inspection referred to was *before* enlistment, whereas we believe it alludes to the inspection *after* enlistment, when the young soldier joins his corps or regiment. If so, the small proportion of objections proves nothing at all! There is no longer a regimental doctor to examine the new comers, and he would be a bold commanding officer who would take upon himself to decide that a lad was physically unfit. In fact, a specimen must be of a very bad class indeed before a regimental authority would venture to object at all. We must say we should be glad of an assurance that medical officers on the recruiting service are *never* called upon to play fast and lose with medical opinions.

Mr. Warton's Bill, to restrain the sale of patent medicines containing poison, was rejected on the second reading, on the grounds that it would not be workable, and that the Government have the matter in hand, and are prepared to treat it in "a much broader sense" than Mr. Warton had. We fear experience has proved that for the government to "have a matter in hand," means that nothing will be done with regard to it.

The General Medical Council met on Tuesday, and their proceedings on the first three days of their session are reported in another part of the journal at as great a length as the exigencies of our space, and the importance of the subjects discussed appear to warrant. The programme of business sketched in the President's speech does not promise a very exciting session, though there is no subject too unimportant for some, at least, of the councillors to think it worth while discussing. Their motto is, "Nihil humani alienum a me puto," or, as it may be freely rendered, "I am interested even in Mr. Sadgrove."

The Meeting of the Fellows and Members, at the Royal College of Surgeons, on Monday last, passed off with a certain amount of *éclat*. The Council carried all their recommendations on the one hand, while the Fellows and Members got tangible and independent concessions on the other. Both the one and the other are, to speak correctly, but recommendations to the present Council; the exact details, and the form in which they will be embodied, still remain to be decided by the Council with the help of their legal advisers, and, before becoming law, must receive the sanction of the Privy Council. We must refer our readers to another part of this journal for particulars concerning this meeting.

At the Medical Society on Monday last, Dr. Cavafy read a paper on some cases of facial erysipelas, with low temperature. The question raised was as to the real nature of such cases. Could an inflammatory process exist without elevation of temperature, especially a specific inflammatory process. Dr. Cavafy referred to the varieties of erysipelas, as indicated by the various names it had acquired, and argued from these that the disease varied greatly, both in intensity and extent, much as almost all other diseases might do, without in any way losing their specific characteristics. He rightly pointed out, that every precaution should be adopted, as regards isolation, even in cases which appeared quite simple, and apparently free from infective tendencies. Dr. Finlay next read a paper on a case of opium poisoning. The patient had accidentally swallowed a sedative draught, prepared for a horse, which contained laudanum to the equivalent of about seventeen and a half grains of solid opium. When taken to the Middlesex Hospital, the full effects of opium were manifest, and other treatment having failed, and the patient being nearly moribund, atropia in solution was injected subcutaneously; an improvement became at once manifest, and maintained itself. About one-thirtieth of a grain was used altogether. The patient quickly recovered.

At the Royal Medical and Chirurgical Society, on Tuesday last, Mr. Noble Smith read a paper on Dupuytren's Contraction of the Fingers. He had examined the hands of 700 old persons, and found 70 cases of indurated and contracted palmar fascia among them, eleven well-marked cases occurring among women; the majority of the affected individuals were mostly healthy, but very old. As regards cause, he doubted much the usual accepted theory of gout. Dr. Radcliffe Crocker communicated an account of three cases of Xeroderma Pigmentosum (Kaposi). This is a very uncommon form of skin disease, now described for the first time in this country, and is apparently a primary atrophy of the skin. From Dr. Fox's remarks it would appear that he was the first to recognise the true nature of the disease in these cases, and on account of the great rarity of the affection, he had drawings made, when they were exhibited before another society some two years ago.

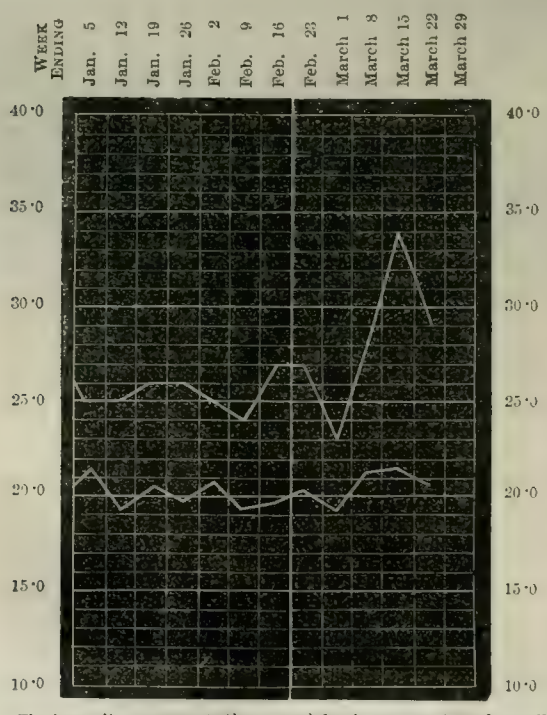
The newly formed Hospitals' Association held on Wednesday evening last the first of a series of evening meetings, of which notice has already been widely advertised. Under the presidency of Sir Andrew Clark, the rules of the Association, as approved by the Council, received the sanction of the meeting. A paper, of which a verbatim copy was placed in the hands of the members and visitors present, was then read by Mr. W. J. Nixon, the House Governor of the London Hospital, dealing with the wide and difficult subject of out-patient reform in hospitals dependent upon public charity for their maintenance. After some interesting historical observations upon the early days of the out-patient system, beginning at the London Hospital as long ago as 1741, the question of the means of reduction of the present overcrowding was considered, and the disadvantages to patients, to general practitioners, and to the honorary officers of hospitals, of any kind of pay-system was strongly urged. The injustice of limitation of numbers on the rough-and-ready principle of "first come, first served," was also pointed out, and as a true remedy a system of *inspection* of the social, and then of the medical, fitness of each patient for gratuitous relief was warmly advocated.

A paper by Mr. T. Holmes was also read, suggesting a system by which the out-patient department might be reserved for purely consulting practice, cases being sent for the purpose by their own doctors; all such work to be done gratuitously by the hospitals. The ensuing debate was both practical and interesting, the majority of speakers being able to bring personal knowledge to bear upon the subject. The system of provident dispensaries appeared to be held in considerable but not universal favour as, in theory, it will probably always remain. The association of the provident dispensary with the free general hospital is as theoretically attractive as it seems practically unworkable. A combination of the pay-system, with inspection of the social position of patients, was strongly urged by Mr. H. C. Burdett, who called attention to the success that has attended it in America, and, in the cases of the special and cottage hospitals, in England. The objections which the various methods of payment would present to the honorary officers of hospitals, were ably put by Mr. Page and Dr. Gilbart Smith, the latter being emphatically averse to any payments whatsoever. In summing up the debate Sir Andrew Clark spoke in warm terms of the value of the out-patient departments for teaching purposes, and deprecated any system by which their usefulness in that respect might be diminished.

Dr. Robert Bell, on the 19th instant, read a paper "On House Sanitation" before the Glasgow Philosophical Society. He expressed the opinion, that dishonest plumbers and builders were frequently as guilty of manslaughter as were the wretches who from time to time were convicted of that crime at the bar of justice. Dr. Bell referred to two cases, in which bad drainage had caused, in one instance, typhoid fever in four children, and in the other case a number of children had been attacked with diphtheria, as a consequence of defective drainage. It was appalling to contemplate how many valuable lives might have been

sacrificed to the avarice of tradesmen in the construction of defective drains. As a protection against bad drains the suggestion was made, that the work should not be covered in, until it had been inspected by a surveyor, and certified to be in perfect order. The recommendation was made, that the surveyor should be appointed by Government, and should be independent of plumber and proprietor. Dr. Ebenezer Duncan, in criticising the paper, said, that if sewage gas propagated fever at all (which he doubted), it did so in a very slight degree. Medical men, when they were called in to a case, and found a defect in the drainage, were too liable to put down the illness to the bad drain, especially in the case of fevers. This he considered to be a false position for any man to take up, he therefore disagreed with Dr. Bell in this respect.

The health of the 28 English towns showed a slight improvement last week, the general death-rate being 22·1 as compared with 22·6 in the previous week. The mortality from measles has been excessive at Portsmouth, Oldham, Norwich, and Nottingham, the death-rate from this disease having been as high as 7·1 in the first-named town. In London, both the general and zymotic death-rates declined last week, as may be seen at a glance from the annexed chart.



The lower line represents the annual death-rate per 1,000 from all causes in London, in each week of the current quarter.
The upper line represents the annual death-rate per 10,000 from zymotic diseases in London, in each week of the current quarter.

The former was 20·6 and the latter 2·9 per 1,000 (or, as it is represented in the chart, 29 per 10,000) and both were somewhat above the average of the last 12 weeks. The deaths from whooping-cough were less than last week, but were still 10 above the average. In the other 27 towns, with an aggregate population considerably exceeding that of London, the deaths from this disease were only 42. That is, more than 60 children died last week from whooping-cough in London, who would not have died, if the disease had only been fatal as in the other large towns. Why is this?

At a meeting recently held in King's College, a congratulatory address was presented to Professor Curnow, on his appointment to the office of Dean of the Medical Department. Planned and carried out purely by the students, the address was a graceful expression of good feeling and harmony. Numerous members of the staff were present as well as a very large proportion of the students, the wards and the dissecting room being alike deserted for the time. Dr. Wace, the new principal of King's, took the Chair, and the meeting, though brief, was throughout marked by unusual enthusiasm and good taste.

The special arrangements made for the regulation of the third Congress für Innere Medicin, which will be held in Berlin from the 20th to the 24th of April inclusive, are now complete. Exceptional interest attaches to the forthcoming meeting in the simultaneous celebration of the Jubiläum of the President, Professor von Frerichs, who will open the proceedings by an address on April 21st, and be present at a banquet to be given in his honour on April 23rd. For the accommodation of members and visitors the several committees appear to have spared no pains; and, in addition to the usual arrangements for lodgings, visits to public institutions, &c., it will be noted that places are to be specially reserved for them in two of the leading theatres. Of the subjects appointed for discussion, the most important are those of true pneumonia, polio-myelitis and neuritis, and nervous dyspepsia. Several other communications are promised, of which the following may be specially noted:—Goltz (Strassburg) on Cerebral Localisation; Herman Weber (London), on School Hygiene in England, with especial reference to Epidemic Diseases; Rosenthal (Erlangen), on Reflexes; Rossbach (Jena), on the Report of the Commission on the Treatment of Infectious Diseases. In addition to members possessing full privileges, the Congress comprises associates, who have the privilege of taking part in discussions, and of receiving a copy of the transactions, but are not permitted to vote.

The elevation of Prof. Frerichs to the rank of a noble has been received with the highest satisfaction by the Berlin Medical Press, and the profession at large. When he appeared at the Clinic the day after it had been made known, a very warm ovation awaited him. In acknowledging the compliment, he observed that he was quite aware that the distinction was appreciated not merely on personal grounds as related to himself, but also in relation to the profession of which he was a member. "We, too, most certainly," the *Berliner Klinische Wochenschrift* observes, "are of opinion that all honorary testimonials conferred upon our leaders, are reflected in the entire medical world, but Herr von Frerichs must allow us not only to express our satisfaction at the respect thus paid to the

profession, but also our joy that he has been the person selected for the expression of this honour." Conferring this rank upon professors is quite a recent occurrence in Prussia, the celebrated surgeon Bernhard von Langenbeck having been the first so honoured in recognition of his services in the Danish war. A year later, Ranke, the famous historian, was raised to this rank on his seventieth birthday. So long ago as 1866, Dr. Lauer, the personal medical attendant of the Emperor, was so honoured; and last year, at the request of the Crown Prince, the great physicist Helmholtz received the promotion. He commenced life as an anatomist and army surgeon; so that of the five persons who have been thus ennobled, four belong to the medical profession.

Dr. Koch's Sixth Report—a full translation of which we published last week—might almost have been written to exemplify the use of the Methods of Inductive Research. Curiously enough the same subject, the causation of cholera, is chosen by Stuart Mill to illustrate one of these methods. Dr. Koch found, when in Egypt, that a certain specific form of bacterium was present in all the cases of cholera examined by him. That illustrates the Method of Agreement, a method which cannot prove causation, but which is chiefly useful as affording suggestions for further research. Koch's next step was to employ the Joint Method of Agreement and Difference. He proceeded to enquire whether the special bacillus was present in the case of other diseases, especially those in which the symptoms are in some measure allied to those of cholera, as dysentery and arsenical poisoning. He found the bacillus invariably absent, and thus was able to fulfil the conditions of the Joint Method. But this method, however successfully applied, can never furnish absolute proof, for there may be some unknown antecedent—say an unexplored meteorological condition—which would account both for the growth of the bacillus and the attack of cholera, the two being thus concomitant effects of another cause, and not related to each other as cause and effect. All the while Dr. Koch was trying by the Method of Difference to obtain a definite and conclusive answer to his problem, but with such slight success that he at last gave up the attempt, comforting himself with the reflection, that it is questionable whether success will ever be attained in this direction. Lastly, his report furnishes an illustration of the employment of the Method of Concomitant Variations. He found the advance of the cholera process associated with a proportionate increase in the number of the bacilli; and this discovery, though inconclusive by itself, furnishes valuable confirmatory evidence. Since Dr. Koch concluded his labours for this year, it is reported from India that the Method of Difference has been successfully employed by a young English surgeon, Vincent Richards, who has succeeded in infecting a pig with cholera. The *Daily News*, we see, accepts this statement as conclusive, and triumphantly proclaims the completion of the discovery of the cholera germ; but scientific men will exercise greater caution, and will be inclined to hold that pig out in India innocent of true cholera, till he has been proved guilty to their satisfaction.

One most important sentence in Dr. Koch's report appears to have nonplussed our contemporary, the *British Medical Journal*. The construction of the sentence is ambiguous, but its meaning is obvious. Dr. Koch says that he often found the comma-like bacilli giving rise in pure cultivations to S-shaped forms, and to long wavy lines. The S-shaped forms, he continues, owe their peculiar shape to their being made up of two individual curved bacilli adherent to each other; and the long wavy lines consist of a series of such bacilli clinging to each other by their extremities. That is a free, but, we believe, a correct rendering of what Koch intended to imply.

A proposition has been set on foot in Vienna, to celebrate the discoveries of the German Cholera Commission by giving a triumphal reception to its three members on their return from Calcutta *en route* to Berlin. The details of the celebration will be in the hands of the Viennese Gesellschaft der Aerzte. This act of almost international courtesy will be received with peculiar favour in Berlin, coming, as it does, with especial grace from some of the keenest critics of his previous work with whom Dr. Koch has had to contend.

In his annual report to the Government of India for last year Surgeon-Major Cuningham takes the opportunity to have his say as to the alleged conveyance of cholera from India to Egypt. He considers that the fear that cholera would be conveyed from India to Egypt by ships, rests upon theoretical grounds only, and he points out that, as a matter of fact, during the long period of seventeen years Egypt was free from cholera, whereas during that time many serious outbreaks occurred in India, and he further says that it might even be shown that other countries had often commenced to suffer from cholera at a time when this was below the average in India. Had the cases first appeared at Suez or near the Southern sea-board there would, he admits, have been *primâ-facie* evidence in support of the importation theory; but the outbreak commenced on the Mediterranean side at Damietta, a town in a most unsanitary state. After pointing out the measures which are taken to prevent the supposed exportation of the disease, he says that the execution and encouragement of sanitary works is the only action which can properly be taken by the State. Measures should be adopted to improve the sanitary condition of the place, not to shut up the persons who are suffering, as that can only end in disappointment, and be productive of endless annoyance to the people.

Popular in Paris as is the Jardin des Plantes, which is attached to the Muséum d'Histoire Naturelle, the latter institution is little known or cared for, except among the men of science who are aware of the good work that has been done within its walls. Among them, however, there are several who are not pleased with its management and arrangements; and this has led the professors of the institution to issue a pamphlet (*Revue Scientifique*, March 8th), defending their procedures. One of the charges against the Muséum, which certainly seems a strange one, is that

its management is in the hands of the professors themselves, and not in those of the government. This, the professors observe, is no more than what is the case in the German Universities, and it gives to the institution an amount of independence which the professors of the French Faculties do not possess. They admit that numerous reforms and changes are required, but declare that these are not attainable as long as the sum devoted to the purpose of the Muséum is so small. The total amount of this is but 918,942 francs, out of which funds have to be provided for 19 professors, 56 assistant naturalists and preparers, a vast number of *employés*, and the keeping up of the *jardin*, which alone costs near 100,000 francs. Among the desiderata which the Director, Prof. Frémy, the writer of the pamphlet, indicates, are the providing of laboratories and a marine establishment; the allotment of a greater sum for purchasing animals (at present only 4,000 francs per annum is allotted, while a rhinoceros or elephant may cost 20,000 francs); rearrangement and refurnishing of the exhibition galleries; additional assistants; enlargement of the anthropological department and of the library (which now possesses more than 100,000 volumes); and increase in the payments made to the assistant naturalists—this last being an urgent necessity, as at present it is very difficult to fill up posts that are so badly paid.

Aconite is once more to the fore. This time it comes up for discussion on its own merits, rather than as the result of some dire calamity or crime. It is arraigned on its general character and history, and not on the issue of a single escapade in careless or criminal hands. In the debate recently held at the Société de Thérapeutique, much that was interesting, and at times entertaining, cropped up. One speaker went so far as to urge its common use in large doses, because it has been employed so much by homœopaths, that the public have developed a taste for it. "Je prends mon bien partout ou je le trouve," says Molière, and this appears to be the line of argument here adopted. The practical outcome of the discussion was useful, being no less than the recognition of the extreme variation between the strengths of preparations of aconite obtained from different geographical sources, and the importance of indicating in the prescription the precise preparation intended to be used.

It is curious to note how long it has taken our French *confrères* to realise a fact made so widely known in England at the time of the Lamson trial, Dr. Stevenson having then, and in his subsequent paper in the "Guy's Hospital Reports," shown that aconite is met with in commerce in various degrees of purity and activity. The stage of development of the plant at the time it is gathered also called for remark, M. Limousin stating that different parts of the plant contained varying proportions of the active principle before and after the opening of the flowers, and suggesting that the time of collecting should be noted in future. This is encouraging. There are *some* things we manage better in England, our "British Pharmacopœia" being sufficiently precise on this point.

The *Lyon Médical*, 16th March, reports the result of an action brought by a dressmaker against a surgeon, in which the damages were laid at 30,000 frs. The plaintiff had met with a dislocation of the elbow, and the surgeon in question, after reducing it, had applied a bandage which only reached just above and below the elbow. This was put on so tightly that the patient, suffering much pain from it, complained on four several occasions to her attendant, requesting him to loosen it. This he refused to do, declaring that her complaint was without cause; and at last she applied to another practitioner, who removed the bandage and found that the hand and a part of the arm were already in a state of gangrene. The result was that the plaintiff lost the use of her arm, and was unable to follow her occupation. Three professors of Montpellier were consulted by the Civil Court of Nimes, who, while not blaming the partial application of the bandage very severely, were of opinion that the having allowed it to remain on for 36 hours, notwithstanding the entreaties of the patient, was "an act of grave imprudence due to a false interpretation of the phenomena observed." The Court condemned the defendant in damages of 1,800 francs, and to the payment of a pension to the plaintiff of 200 francs per annum during her life.

The author of that most readable little book, "Called Back," is evidently somewhat mistrustful of the credulity of the British public in regard to his, shall we call it, "thought-seeing" scene with Pauline. He need not have been so apprehensive; those who have watched with believing eyes the wonders worked by Mr. Irving Bishop, will have no difficulty in accepting as true, so vividly described a scene. We have no doubt that the secretary of the Psychical Research Society is on the trail of the author, and we expect shortly to hear that his credibility has been vouched for by that learned body of impartial investigators. Speaking for ourselves, the antecedent improbability of of this scene is a mere trifle to one who has accepted the more remarkable feat performed by the author in one of the opening chapters, when after the removal of both lenses for cataract he practically recovers the use of his sight by dint of two years perseverance, so as almost to be able to discard the use of glasses. There could be no limits to the powers of vision of a man blessed with such a pair of eyes as the hero of "Called Back."

Dwellers in the parish of St. Marylebone, and they are many, will derive not a little comfort from a perusal of the report of their medical officer of health for last year. On the whole, the parish was fairly free from zymotic diseases, with the exception of an outbreak of typhoid fever in Harley-street, the cause of which was not clearly made out; the milk supply, of course, was incriminated, but the evidence against it was, in Mr. Blyth's opinion after a careful enquiry, inconclusive. The death rate was decidedly lower than last year, though higher in the matter of tubercular diseases, which Mr. Blyth traces to certain rookeries which still linger in the parish, but which he has got his eye upon, and will not lose sight of whilst in their present insanitary condition. Of five such regions he gives

a somewhat detailed account, showing the average number of inhabitants in each tenement, and the rate of mortality for the last seven years. In two of them this reached the rather astounding figures of 39 and 35 per thousand respectively, the average for the whole parish being twenty per thousand. We should doubt whether more than one per cent. of the thousands who daily pass the entrance to it have any idea of the existence of Gee's-court; those who have been through it will not be surprised to hear, that the mortality from chest affections is half as high again as in the rest of the parish; and there are worse places in the parish than Gee's-court.

Dr. W. J. Branch, of Basseterre, St. Kitt's, has sent us a photograph (which we regret not to be able to reproduce) of a little coloured boy in the St. Kitt's Hospital, who has two large teeth in his nose. "It was not easy," writes Dr. Branch, "to get a good picture of him, because he seemed to think that the camera was meant not to take, but to take off, his head. His lip was held up to show that all the incisor milk-teeth in the upper jaw are in their natural situations. A portion of his nose has been destroyed by ulceration. It was for this disease that he was sent to the hospital. It soon healed with the application of iodoform ointment, and the administration of iodide of potassium. I intended to have made a new nostril for him, but while waiting to make sure of the cure of the ulcer, these teeth began to make their appearance. They seem to be the two central incisors of the permanent set. They spring from the floor of the nostrils at the sides of the bony septum, are freely movable, and are apparently attached to the mucous membrane only. They have little or no roots, but their crowns are very large, white and solid. The boy's mother had syphilis many years ago, probably before his birth."

"A. B." writes to us as follows:—"You refer to the favourable opinions expressed by the American journals of the medical press of England, but singularly enough, and which I apprehend arises from an excess of editorial modesty, no mention is made of the *Medical Times and Gazette*. In an American journal now before me, I read the following, which is headed 'The London *Medical Times and Gazette*': 'Our readers who are not already subscribers to this live English medical weekly will find it a valuable addition to their libraries. The original clinical department is always interesting, some of the best men of the "mother country" being familiar contributors to the *Times and Gazette*. Our English readers in the Canadas and other provinces, as well as in the islands of Great Britain will find the editorial and news department of the *Times* of special interest to them. But we presume but few Englishmen in the profession need be reminded of this, for they probably all take the *Times and Gazette*.'"

A correspondent informs us that Dr. John Dudgeon, of Pekin, has been presented by the King of Spain with a Cabellero a La Real Orden de Isabel la Catolica, in other words, a Knightship of the Royal Order of Isabel the Catholic. Dr. Dudgeon is an Alumnus of the Glasgow University, and the Medical School, which is being established at Pekin, has been placed under his auspices. He is at present lecturer in anatomy and physiology in the Tung Wen College, and has translated several important books into Chinese.

In addition to the bequests mentioned in our last issue, the late Mr. James White, of Overtown, has left 500*l.* each to the Glasgow Blind Asylum, the Glasgow Eye Infirmary, the Glasgow Ophthalmic Institution, the Training Home for Nurses, and the Association for Relief of Incurables for Glasgow and West of Scotland. Mr. White was, as we stated recently, chairman of the Glasgow Ophthalmic Institution. All the charities of the city have lost a valuable patron by his death. The Western Infirmary will, however, be greatly helped out of a difficulty by the timely aid of its 5,000*l.* legacy, for we have intimation from the honorary treasurer that the income of the Infirmary will this year fall short by 7,000*l.* Earnest appeal is being made to the community generally, and to clerks in offices in particular, who so far are doing their best to respond to the appeal, as far they are able. It must, however, be said that there is a general tendency on the part of managers of public charities, manifestly the infirmaries, to accumulate and shut up the funds of their institutions, and then to call for increased liberality on the part of the giving public.

The lawyers have determined for us a point in which it is evident that there is considerable difference of opinion amongst medical authorities. In the case of Whitling and another *v.* Carpenter, which came before Mr. Justice Hawkins, on the 20th instant, the learned judge, after hearing the evidence of Dr. Wilson Fox, Dr. Andrew, Dr. Gee, and Dr. Lanchester, on the one side, and of Dr. Allchin, Dr. Norman Moore, and Dr. Carpenter, on the other, decided, quite correctly we think, that a consulting physician is one who acts only in consultation with another medical man having charge of the case. Dr. Carpenter, therefore, undertook to abide in future by the judge's ruling, and not to see patients except in consultation with another practitioner. We shall say nothing more of this unfortunate case, except to express the somewhat radical opinion that the time is coming for medical practitioners of all shades to give up selling the goodwill of their practices. The bargaining over patients, which such a case brings into unpleasant publicity, stamps the profession as a trade in the eyes of all men. So long as a practice is bought and sold like a public-house, it is absurd to complain of the low status of the profession. The "abolition of purchase" would at once raise the standard of the profession, by distributing rewards more in harmony with deserts.

During the forthcoming International Health Exhibition, which will be opened by His Royal Highness the Prince of Wales, on Thursday the 8th day of May, at 3 p.m., there will be a reading room and library open to the public. The Executive Council are making an appeal for the loan of works on health and

education, to be placed in the said library for reference. The books, which they are especially desirous of obtaining, are those on vital statistics, those relating to injurious trades, reports and regulations on public health issued by the Central Authorities of all countries; reports, statistics, and other works on education; and books referring to health and vital statistics in India. Current numbers of any periodicals relating to any of these topics will also be placed in the reference room. A catalogue of the books in the library will be printed, and every care will be taken to protect the books from injury. Persons willing to lend books, are desired to send them to the secretary of the library committee, Royal Albert Hall.

We are glad to hear that after a most successful first year, the *Bristol Medico-Chirurgical Journal* is to be published quarterly, instead of half-yearly, and that it is to be reduced in price.

THE PRESIDENCY OF THE COLLEGE OF PHYSICIANS.

The growing importance of the medical profession in this country, and the increased attention which is being paid to its utterances on scientific questions that affect the welfare of the people, lend an additional interest to the subject of its official representation, and of the constitution of those great bodies by which it is publicly judged. Now, more than ever, when the vital question of the status and education of medical men is again before the Legislature, and under general discussion, does it concern both the profession and the public at large that truly representative men should be called to preside over the Medical Colleges, whose advice, however expressed, should rightly have the greatest weight in guiding the actions of professional men, and influencing the opinion of Government authorities. That ancient and honourable institution, the College of Physicians, stands foremost in the capability of exercising this desirable power, and its President should be regarded as the accredited head of the profession, the mouthpiece of its best minds, and the delegated guardian of its highest interests. The present incumbent of this office has, indeed, served the profession well during the last three years, and has shown himself deserving of the best honour it can bestow. That Sir William Jenner should continue to preside over the councils of the College as long as custom permits, would meet with the approbation of all, and doubtless the Fellows would elect him again and again as long as he might be willing to keep the Chair. But when the time comes for choosing a new President, the profession, not in London only, but also over the whole length and breadth of the land, will naturally be deeply anxious that the best man in the widest sense should be elected as its representative head. Should Sir William Jenner decide not to again accept the votes of the Fellows, there would seem to be no room for doubt that the qualifications for the Presidency, which would best answer the requirements of the College and the country at large, pre-eminently meet in his contemporary, Sir William Gull. As an outspoken and unflinching supporter of scientific work and original research, no less than as a pathologist and a clinician, this physician stands second to none, and the great position he has gained in the profession, together with his wide and varied knowledge of men and things, contribute to make the interval a wide one between him and any other man of his standing. It is, perhaps, especially desirable at the present time that the holder of this important College office should be one who knows what to say and how to say it, and who unites breadth of view with firmness of speech. It seems scarcely necessary to say that the College would best maintain its own interests, while duly serving the public, by chosing for its head, when the time comes, such a thoroughly able and philosophically minded man as Sir William Gull, and not running the risk of diminishing its great influence by divided counsels, and the possible admission of some confessedly inferior representative. It is to be confidently hoped indeed that among such a body as the Fellows of the College of Physicians, no narrowness or party feeling will place any obstacle in the way of this most honourable and important office being conferred on a man whose sageness in council on public matters would be of the greatest value, and who as a great scientific and practical physician, as well as an able medical politician, has deserved so well both of the profession and the public.

EVOLUTION OR REVOLUTION?

For the third time in the history of the College of Surgeons the Fellows and Members have assembled to discuss College matters of importance, and to make recommendations to the Council thereon. But at no previous meeting have such momentous questions occupied them as those which were discussed on Monday last. We confess to a little disappointment that the meeting, comparatively speaking, was a small one; but we think this may be explained less by a want of interest on the part of members in College concerns, than by the difficulty of getting away from the responsibilities and requirements of private practice. *Per contra*, it was pleasant to see almost the entire Council present.

To say that the meeting was convened by the President and Council means much; and it would be ungracious if we were not at once to acknowledge this concession on their part, as well as the friendliness which doubtless prompted them to ask their Fellows and Members to express an opinion on the changes which they think it expedient, in the interests of the College, to make in their Charters. The majority of the changes proposed at this meeting, it is true, have reference to the working of the College, and in no way affect the Fellows or Members personally. Nevertheless one of the proposed alterations, viz., that which will give the Fellows the right of proxy-voting, is eminently a personal one, and has long been agitated for, especially by country Fellows. If it is wise to allow proxy-voting now, why has the privilege been so long withheld? The present proposal of the Council to make it legal, is robbed of a little of its graciousness by the fact that the Fellows formed themselves into an association a year or

two ago, with a view to effect this among other changes. The probable establishment, too, of a State licensing Board, which will deprive the College of the chief part of its work, and nearly all its prestige, may also be thought to have exercised some influence on the recent decisions of the once conservative and omnipotent Council at Lincoln's Inn Fields.

Of still greater import was their expressed readiness to receive suggestions or recommendations on any other alterations in the Charters which the assembled Fellows and Members might have to offer for the consideration of the Council. It only remains to see how the Council will deal with the recommendations, which the meeting was not slow to make, and some of which are radical enough in all conscience. First of all, that Members should have a voice in College matters, as well as Fellows, is obviously a step in the right direction, there being some 1,100 Fellows only, while the Members number over 16,000. Another proposal made and carried was, that an Annual Meeting be held at which the Report of the Council be submitted, received, and adopted; and that the President be no longer elected by seniority on the Council, but by a vote of the Fellows present. If the Council should accept these recommendations, and take the steps necessary to make them law, then we shall have abundant proof that at last a more enlightened policy in College affairs has been inaugurated, and we shall look forward with hopefulness and confidence to its development and results.

Up to the present time the College of Surgeons has been too purely an examining body (and not always a very courteous or considerate one). It has done absolutely nothing to foster a feeling of *esprit de corps* among its associates. From the moment that men become qualified, they cease to feel any interest in the College, which, in its turn, has fully reciprocated the feeling. Its library is very good, but inaccessible at the only times when busy men can get to it. As to the museum, we say nothing, for it does not belong to the College. Even the Fellows are left out in the cold to do as they can, save for the empty privilege of voting for members of Council, and attending an annual dinner (to which, by the way, Members are not admissible!).

How different all this from the clanship of the old universities and the public schools, which is kept up and fostered in every possible manner. We doubt very much if the members care one iota whether the new Medical Bill passes or not, now that they know authoritatively that it in no way interferes with their privileges; indeed, their indifference was manifested last year when the College, by circular, advised them to oppose the Bill in Parliament. It can hardly be doubted under these circumstances that the Bill will pass, and, if it does, that the College of Surgeons will practically cease to exist, since its chief functions will be superseded. It may continue to issue diplomas to such as care to pay for them; but as the M.R.C.S. carries no special advantages, we doubt whether the College will attract sufficient men to make this a source of income. The Fellowship may continue to hold its own for a while, but the fifteen or twenty men who acquire it each year will not add much to either their funds or their corporate power. We confess to a feeling of real regret that this should be so; and it remains to enquire whether it is past all repair. Frankly, we think not. We can hardly doubt that a most favourable impression will be produced on all the present members of the College if the newly proposed recommendations be carried out by the present Council, and if for future members a new order of things, and one adequate to the needs of the public, be initiated.

A scheme was broached at this meeting. It is one, we believe, which has often been discussed by the two London Colleges. The Colleges, it was proposed, should amalgamate, and obtain powers by Charter, to give a double diploma as doctor of medicine, and master of surgery. It was argued that in Scotland, after an examination not more searching than those of the London Colleges for their respective licences, a degree in medicine and surgery was obtained which was far more useful in practice, and carried more weight with the public than did the London diplomas, and that in consequence large numbers of men went to Scotland to study. If the London Colleges would amalgamate, and give these much coveted titles, they would be more thought of by their licentiates, and acquire more influence over them and with the public. A clause, too, might be introduced, by which those who now hold the two diplomas might be admitted *ad eundem*. With such a prospect in store, a Medical Bill would be less necessary, the Colleges being left untrammelled to work out the objects for which they were established, and in which they have gained an immense and valuable experience. The English Universities would have nothing to fear from the amalgamated Colleges, and their right to confer the title of doctor. The latter would be a licence to practise medicine and surgery only, while the University degrees would continue, as now, to be an indication of a more extended education, of wider culture, and higher intellectual powers; and they would continue to be sought after by just the same class of men as now, and carry with them just the same prestige; at present the M.D. carries less weight, than the affix Oxon., Cantab., or Lond., respectively, which qualifies it. In the supplementary Charter which would be required, the most noticeable of the safeguards which relate to the efficiency of the profession and the welfare of the public, contained in the new Medical Act, could be inserted, and made operative in the new scheme. For the present, we must leave the subject, but shall await with interest the deliberations of the Council on all that has transpired. Let us add, "Baldgethan ist wohlgethan."

The Hospital for Sick Children, Gt. Ormond St.—The annual festival of this charity was held on Wednesday evening, March 26th, at Willis's Rooms, when Sir William Gull, Bart., presided. The Chairman, in the course of an eloquent speech which was characterised subsequently as philosophic by Lord Gort, spoke of the value of such an institution, and of the deservedly high reputation which the hospital enjoyed in the medical world. What he had seen of the hospital and its nursing arrangement pleased him very much. In the course of the evening the Secretary announced that the subscriptions and donations amounted to 1,700*l*.

THE NERVOUS ELEMENT IN ABDOMINAL DISORDER.

THE material of the Gulstonian lectures this year offers several points for reflection, both in its negative criticism and its positive teaching. The first lecture, which so admirably and trenchantly marks the ethical iniquities so often following in the train of pseudo-science, cannot fail to be of the greatest practical value to the profession and the public. Good service, moreover, will doubtless be done by the lecturer's insistance on the purely symptomatic character of the word dyspepsia, though we cannot but think that the majority of teachers in London almost daily emphasise this dictum before their pupils as strongly, if not as eloquently, as Dr. Allbutt himself, and that the fallacy he combats is not so common among practitioners in the South as it seems to be in the North. But our present remarks will relate chiefly to the positive scientific precipitate apparently left from these Lectures on Visceral Neuroses after the filtering off, for due preservation, of the potent solution of well-merited moral and practical reproof which the lecturer has placed before the profession.

Many have undoubtedly been impressed by Dr. Allbutt's contention that cases of gastric and intestinal pain and disorder, apart, in all probability, from visible organic disease, are of such frequent occurrence; cases, too—as was so much insisted upon—that do not show any obvious alliance with the symptoms popularly known as hysterical. Although something must be put down to the exceptionally large experience of Dr. Allbutt in abdominal cases, and possibly also in some degree to the *locale* of his practice, yet it must be admitted that what we must call true neuralgias often occur which have their seat below the diaphragm, and that other symptoms, such as sickness and flatulence, are not seldom seen whose course and alliances seem to point to a nervous origin similar to that of the pain with which they may or may not be associated. But when we conveniently refer these cases of pain and discomfort to the heading of "visceral neurosis," it is well that we should pause and ask ourselves what we mean by the term "neurosis." This word seems to be used in two different senses. First, it is employed with the implication that the organ affected is not permanently or structurally diseased, but that it is simply disturbed with a disturbance of the nervous system. This we may call the negative connotation of the word "neurosis," and perhaps more than any other it makes the use of the term both justifiable and necessary. By styling a symptom neurotic, then, we mean that the suffering part of the body is not locally diseased, and does not require local treatment; and that, whatever the general cause of the disturbance may be, a large field of doubt as to its nature and treatment is removed.

The second use of the word "neurosis" is more vague, but we think fairly common. It shines through the application of the term neurotic to a certain class of people, and apparently implies a theory of some special diathesis, so that when we call a patient neurotic in this sense we refer him to a peculiar though vague pathological category. If we mean anything by marking a sufferer as neurotic, we imply that there is some undiscovered fault in the development, or organisation, of his nervous system, or, to use Dr. Allbutt's words, that there is an atony or a special irritability of nerve element. Now, although this is a laudable attempt at explanation, or at reduction of disorder to order, it is evident that it is but an attempt. In the present state of our knowledge of nervous physiology or the study of normal nerve function, we are but on the threshold of an enquiry which we may never satisfactorily terminate. We are here, at the best, in the presence of a great Unknown, and, however probable it may seem that many maladies at present referred to other systems may be really neuropathies, and that we may be able some day to trace "even the history of gout upwards to a point of union with a divergent stock that has previously branched off into the tuberculo-neurotic," yet we run at least the risk in prematurely doing this of employing the method of *obscurum per obscurius*, and possibly of neglecting some more subordinate cause which may lie immediately at our feet. A faulty development of the nervous system, that highest and most complex expression of organisation, is obviously likely to be the lot of many of us, and though this may be the only possible interpretation of many so-called nervous symptoms, we must still confess that the explanation as yet savours of learned ignorance, and often comes very near to a laboured acknowledgment that we are unable to explain the symptoms at all.

This being the case, it behoves us to be very careful as to the sense in which we apply the term "neurotic" to disease, and we are here brought to consider how far the distinction insisted on by Dr. Allbutt between "neurotics" and "hysterics" is scientifically valuable. That a laborious student, who is the subject of gastric neuralgia, is not to be clinically classed with the wilful or will-less girl, who month after month lies helpless, though apparently healthy, in her bed, is quite clear to all, and is beyond discussion. It is unquestionable that there are many sufferers from real pain and discomfort, the explanation of which is not obvious, whom it would be absurd to accuse of simple fancy, and still more to arraign as conscious impostors: and here we quite agree with Dr. Allbutt in condemning the application of the popular term hysterical, implying a large element of shamming, to every pain which cannot be referred to a tangible cause. But if we analyse the symptoms which in medical language generally are called hysterical, including many which often occur in those to whom Dr. Allbutt himself would apply the term, we shall probably find that they can be best, if not exclusively, explained by ranging them under the term "neurosis," according to the meaning laid down above. A disordered nervous system, *i. e.*, a want of proper subordination in the working of the various parts; an abolition of due control of the higher over the lower "centres" (which, indeed, is only the physical expression of want of will), an undue reaction to stimuli—formulæ such as these and others state really all that we can mean by the term "neurosis," and these conditions find their best and most varied illustrations in those patients who are

admittedly called hysterical. Surely, if we are to keep to the old eruse of the term, as Dr. Allbutt seems inclined to do, we must regard *clavus* as an important expression of hysterical disorder; for it frequently occurs in patients who exhibit the other marks of hysteria in its most limited sense. Taking, indeed, the symptoms of hysteria together, including the mental and moral failures so prominently brought forward in these lectures, and demurring here only to Dr. Allbutt's allowing his moral indignation to get the better of his physical philosophy, we should rather plead that hysteria, including, as it does, the disorder of the highest cortical centres which express the intellect and the will, is, *par excellence*, the purest example of neurosis in its most legitimate sense. For is it not a Protean manifestation of disorder from the apex to the base of the nervous system, motor, sensory, and nutritive, eluding our most careful search for subordinate and more tangible causes.

The paralysis of the so-called "will" deserves the attention of the physician as much as that of a limb, or the undue expression of pain in any part of the body, and must be looked upon in close connection with the more strictly bodily disorders which often accompany it. It must be remembered, too, that the disturbances of hysteria, both in its normal and intellectual phases, are often conjoined with the so-called neurotic phenomena of gastric pain, and more especially of flatulence, on which Dr. Allbutt lays such great stress in his exposition of pure neuroses. Dr. Allbutt admits, indeed, that the hysteric is a degenerate member of the neurotic family; but our contention is that this simile is not accurate, and does not quite save the lecturer from the charge of making a somewhat artificial and premature division of functional nervous disorders, and an apparent attempt at pathological finality but hardly justified by our scanty physiological knowledge. Some degree of confusion, and, indeed, practical mistakes, might possibly be occasioned with not very profound observers by accepting too unreservedly the lecturer's view. Rather should we call the hysteric patient a *multum in parvo* of neurotic disorder, a museum of nervous aberrations, while Dr. Allbutt's neurotic, or, what is not far different, the neuralgic, is but an isolated specimen of disordered nerve function. It is when the higher parts of the nervous system become deranged that the confessedly hysterical symptoms set in on which in ethical rather than medical language Dr. Allbutt has poured out the vials of his contempt. It would almost seem that sensory nervous disorder accompanied by pain is reserved by the lecturer for the honourable title of neurosis, while the motor and other disorders of function, unattended by actual suffering, and therefore more liable to the suspicion of shamming, are relegated to the class of hysteria in its narrowest and most offensive sense. The "neuroses," for instance, of vomiting and flatulence, often, as Dr. Allbutt says, unconnected with prominent pain, must be admitted to be very common, indeed most common, in obviously hysterical women; so that it is scarcely straining the meaning of the lecturer too much when we substitute the word "neuralgic" for the "pure neurotic"; for it is, indeed, the neuralgic who pre-eminently justifies at first sight the plausible creation of such a clinical class at all.

A practical lesson to be learned from this seems to be, that the more a pain or other nervous symptom is localised and constant, and unassociated with other signs of nerve-disturbance, so much the further is it removed from the hysterical class, or from the typical neurosis; and just in the same proportion is it often found to be very difficult to distinguish from affections with a more tangible origin. Apart from any hypothesis of a nerve origin for the round ulcer of the stomach, is it not often a very puzzling task to make a certain diagnosis between gastric ulceration and gastralgia? They are apt to occur in the same class of subjects, and the symptoms of the two affections, if accurately described in certain cases, would sometimes be almost indistinguishable on paper, or indeed in actual practice We find Dr. Allbutt himself more than hinting, from time to time, at some other explanation for the localised troubles he so accurately describes than that of pure neurosis; and suggestions are made as to an "echo of gout" in some cases, and a remnant of rheumatism in others. We are by no means implying, it must be well understood, that there are no such patients as Dr. Allbutt's privileged class of neurotics; but rather desire to point out that the line must not be drawn too distinctly round them. We must never forget the obvious conditions which, as ample experience tells us, often underlie neuralgia in its many expressions; and bearing in mind the part played by bad nutrition, bad air, worry, and, their frequent resultant, anæmia, no less than gout, rheumatism, and many other causes, we shall probably have a clearer idea of what we are about, than by a too dogmatic and frequent use of the word "neurosis." While fully admitting the important element of functional disturbance in the complaints of humanity, we must always enquire first into the question of tangible causes of disease; and, on the other hand, when we come to deal with the obviously hysterical patient, let us remember that she or he is none the less a morbid specimen. It is mainly because it seems possible that both these precautions may be treated somewhat lightly by many who may read Dr. Allbutt's lectures without sufficient care or reflection, that we have ventured to point out these over-nice distinctions, and the somewhat arbitrary use of terms, which are the only faults we can find in these otherwise suggestive and memorable lectures.

WELDON *v.* WINSLOW

The termination of the case of Weldon *v.* Winslow is to both parties partly satisfactory and partly unsatisfactory. To the plaintiff it is satisfactory, insomuch that no one can doubt that she is, at the present time, a sane and very intelligent, not to say astute, person; while it is disappointing to her to know that she has, in the words of the judge, "no redress for the serious inconveniences to which she has been put." The defendant, on the other hand, has been completely acquitted of malicious intention, and is shown to have acted throughout in strict accordance with the law, and to have been guided by what he considered to be the best interests, both of Mr. Weldon who consulted

him, and of Mrs. Weldon herself. On the other hand, he has been subjected to a cross-examination which was calculated to place him in a ridiculous light before the world; and the history of the occurrence, as well as the subsequent events, has shown that the course he took was in itself injudicious, and that the affair was, as he himself admitted, wofully mismanaged. Dr. Winslow was asked by Mr. Weldon to see Mrs. Weldon, and give an opinion as to her sanity. He reported to the husband that she was insane, and recommended her removal to an asylum. It was then arranged that he should himself receive her into his own private asylum at Hammersmith. This will appear to an unconcerned spectator as a false step. The law has provided, and very righteously and properly provided, that the formal certificates, upon which a patient is admitted to a private asylum, shall not be valid if signed by the proprietor of the asylum, or by any one pecuniarily interested in it. The law does not take cognisance of informal proceedings, and, therefore, Dr. Winslow's proceeding was strictly in accordance with the letter of the law; but it was wholly contrary to its spirit. In this case the visit and report of Dr. Winslow were the real and moving cause of Mr. Weldon's decision to send his wife to an asylum. The certificates of the other medical men were obtained merely *pro formâ*—to satisfy the requirements of the statute. Doubtless, the necessity of obtaining them constituted a safeguard to the patient; but the fact remains, that the principal person concerned in getting Mrs. Weldon committed to Dr. Winslow's asylum, was Dr. Winslow himself. It was he who recommended her removal, and it was he who chose the medical men who certified to her insanity; and this, we repeat, was in direct conflict with the spirit of the Act. One of the circumstances of the formal examination did not attract attention at the trial, which is the more remarkable, since a precisely similar procedure, in another case, was commented on by the presiding judge, some time ago, in terms of great severity. The Act provides that the examination, whose results are set forth in the certificate, shall be conducted by the certifying medical man "separately from any other practitioner." In the case of Mrs. Weldon, and in the previous case to which we refer, the two certifiers went to the house of the patient together, and first, one of them waited outside the room while the other examined the patient; and then the two changed places. In this proceeding again the letter of the Act was complied with, but its spirit was certainly violated. Surely, if the provision of the Act is inserted for any purpose beyond mere caprice, it is in order that the two investigations shall be wholly independent of one another, and that the view of one practitioner may not be biassed by the view of his associate. But how can two examinations be considered independent if the two practitioners go to visit the patient together, and first one goes outside the door for ten minutes, and then the other? In a very exceptional case, if a patient is raving so as to disturb the neighbourhood, or so violent and destructive as to endanger the lives of those around, such a proceeding might conceivably be justifiable; but no such necessity was shown to have existed in the case of Mrs. Weldon; and in the absence of urgent necessity, such a narrow and bare conformity with the letter of the Act is almost disingenuous. It has an unpleasant appearance of sharp practice, which a wise man will do well to avoid. It is probable that this part of the proceedings was present to the mind of the judge, when he said that the proceedings had been "strangely precipitate," an expression which was, under the circumstances, not too emphatic.

REVIEWS AND NOTICES OF BOOKS.

The Operative Treatment of Intra-thoracic Effusion; by Norman Porritt, L.R.C.P. (Fothergillian Prize Essay, 1883.) Messrs. J. and A. Churchill, pp. 307.—The favourable verdict already awarded to this treatise by the adjudicators of the Fothergillian Medal is in itself a substantial recognition of the excellent manner in which the work has been carried out by its author. The compact volume at present before us contains the original essay, with hardly any alterations or additions of importance. Confining himself strictly within the limits of his title, the author devotes the greater part of his work to the discussion of the operative treatment of the various forms of pleural effusion as being by far the most frequent, if not the most important, of all the intra-thoracic affections with effusion. A short but carefully written account of the principal points in the anatomy of the thorax is followed by a general statement of the methods of operating upon the chest, the term paracentesis being exclusively applied to the close operation, as with the aspirator or guarded trocar, the term thoracentesis being in like manner reserved for the open operation by incision. A more detailed account of the methods of carrying out these operations, the difficulties attending them, and the sequelæ favourable or unfavourable that are liable to follow them, is reserved for individual chapters. Many of the arguments adduced for and against the various procedures described are of necessity derived from other writers upon the same subject, but the author has not failed to make intelligent use of such personal experience as he has had the opportunity of enjoying. In the simple operation of paracentesis he advocates the use of syphon action by means of a long indiarubber tube firmly attached to the canula, the trocar being thrust through the wall of the tube before entering the canula, so that on withdrawal, the elastic recoil of the tube at the site of puncture prevents all entrance of air into it. He claims for this method a decided advantage over the use of the aspirator, on the ground of its greater simplicity and more graduated and controllable action, and in this view he would probably be supported by most physicians of large experience in such cases. In many of the larger hospitals in London this mode of tapping through an indiarubber tube arranged as a syphon has been long since established as a routine procedure.

In dealing with empyema the author attacks his subject in a systematic fashion, discussing the question of operative treatment fully in all its bearings. If only from a historical point of view the section will amply repay perusal, containing as it does an interesting comparison of the views of the older and more modern writers, both as to the various forms of operation, and as to the respective advantages and disadvantages which they present. The practice of excising portions of ribs is condemned as a primary method of drainage, and after full discussion, Mr. Porritt, while "deprecating delay," would postpone resection in the uncured cases until six months had elapsed. The operation is usually undertaken for one of two reasons: either to facilitate the escape of retained pus, or to permit of greater contraction of the chest-wall. In either of these cases the indications for the resection must be manifest in a far shorter time than he would allow, and hence to delay the operation after its necessity has become obvious is simply to delay, if not to jeopardize, the patient's chances of recovery. Of the operative treatment of pneumothorax and of pericardial

effusions a short account only is given. The book is concluded by an appendix of clinical cases occurring under the author's observation. Although not adding appreciably to the common fund of knowledge on its subject, the work deserves recognition as a careful and painstaking collation of the teachings and opinions of most of the best workers in the same field, brought together and employed with discrimination by a conscientious observer. The style of writing is distinct and simple, being only disfigured by a frequent interchange of the personal "I" with the editorial "we." The printing and compactness of the book leave nothing to be desired.

The Refraction of the Eye: a Manual for Students; by Gustavus Hartridge, F.R.C.S. London: J. & A. Churchill, 1884.—Mr. Hartridge gives in a sufficiently clear and concise manner all the facts requisite for diagnosing and correcting errors of refraction. He commences, in a preliminary chapter, by a short statement of those optical laws which bear on his subject. After treating of the refractive system, accommodation, and convergence from a physiological point, the author describes the various methods of determining errors of refraction. He is not, however, very accurate in his account of the objective examination of the patient. As an example we give the following:—"A flat-looking face is frequently an indication of hypermetropia, a head elongated in its antero-posterior diameter, with a long face and prominent nose, indicates myopia." We notice with pleasure the prominence given to the subject of retinoscopy or umbrascopy—a more correct term, as Mr. Hartridge considers, though he does not recommend its use. "The method of employing retinoscopy is so simple that a few practical trials will suffice to make it understood, although of course, as in all other manipulations, some little practice is required. . . . I think it without doubt the most valuable and trustworthy of all the objective methods." With this opinion we thoroughly agree. In the remaining chapters, the abnormal conditions of refraction, strabismus, and asthenopia are fully and, on the whole, accurately discussed. We think, however, that the following statement would not meet with general acceptance. "Myopia almost invariably depends upon a lengthening of the visual axis, due to the formation of a *posterior staphyloma*." Though the book contains some errors other than those we have quoted, we yet consider that it gives a very convenient and thoroughly practical account of the rather difficult subject of the refraction of the eye. It is well printed, and the illustrations are good.

Principes de Thérapeutique Générale; par J. B. Fonssagrives. 2me. édition, revue avec soin. Paris: J. B. Baillière et Fils, 1884.—Though M. Fonssagrives, as a cultivated Frenchman, is not open to the reproach of dulness, an essay of 575 pages on drug-action in general, culminating in a classification of remedies under 206 separate heads, with sub-divisions, is unlikely to meet with much attention in this country at the present day. The author's opening sentence, "On généralisait trop jadis; nous ne le faisons pas assez aujourd'hui," is the key-note of most of his chapters, which are "generalised" to the point of platitude. M. Fonssagrives entertains the familiar objections to accepting the results of experiments on the lower animals, which accordingly he quotes only as far as they fall in with his own views. Thus unfettered, he skips airily enough over the ground which duller men are laboriously tilling, and arrives at his conclusions with unbated breath. When we mention that digitalis is classed, with the vegetable and mineral acids, as a "sedative of the circulation," that the action of strychnia is explained without reference to the spinal cord, and that ammonia is unhesitatingly paraded as the one true antidote to animal poisons, it will be sufficiently clear how little M. Fonssagrives' system has to do with what is generally regarded as modern therapeutics.

A Manual of Nursing: Medical and Surgical; by Dr. Cullingworth. J. and A. Churchill.—If the nursing, both in hospitals and in private practice, is not even yet all that physicians, surgeons, and the public could wish it to be, it is from no lack of useful manuals. The present one appears in reality to be a second edition of a former work, but one which has undergone such alterations, amplifications, and improvements, that we must needs regard it as a new book. It is illustrated; the directions are short and concise, and if applied with a due modicum of *νους*, the result will be entirely satisfactory. The author justly observes, however, that it will only be found useful as an auxiliary to personal teaching at the bedside—"a mode of instruction which no text-book can ever supersede."

ABSTRACTS AND EXTRACTS.

MEDICINE.

The Exchange of Gases in Fever.—Lilienfeld has recently conducted some experiments on the exchange of gases in animals in a state of fever. (*Pflüger's Archives*, Bd. XXXII., pp. 293–356.) The experiments were made in such a way that he was able to determine during a long period the interchange of oxygen and carbon dioxide—(1) when the animal's temperature was normal, (2) when it was thrown into a state of fever by the injection of a putrid infusion of hay. He found that, without exception, both the absorption of oxygen and excretion of carbon dioxide were increased in fever, and also that the influence of the fever was greater in an animal which had been starved than in one which was fed up to the time of beginning the experiment. This difference he refers to the fact that in the last case the sudden cessation from feeding would alone diminish the amount of oxygen required. He also found that the ratio of the carbon dioxide expired to the oxygen inspired was not altered by the fever. This constancy of the respiratory ratio $CO_2 : O$ proves that Senator's assumption, that in fever the processes of oxidation are incomplete, cannot be accurate; but that the amount of tissue change is increased in fever, whilst the processes of oxidation are carried on in the same manner as in health, but to a greater degree. This increase of the processes of oxidation cannot be a consequence, but must be the cause, of the rise of temperature, since it took place in animals injected with the hay infusion, although their temperature was prevented from rising by keeping them in a bath at a suitable temperature. In one experiment even, in which the temperature of the animal's body was kept below normal by means of the bath, the interchange of gases was increased, this being probably due to the artificial cooling causing a compensatory increase in the production of heat. The author here again agrees with Finkler that the body has the power of regulating its production of heat in a state of pyrexia, as well as in health. Lilienfeld agrees with Zuntz that the rise of temperature, so far from being a salutary reaction of the animal's body in order to destroy the cause of the fever, is rather prejudicial to it, and at the same time favourable to the development of the pyrogenic organisms. —*Centralblatt für Klinische Medicin*, January 19th, 1884.

Arteritis as a Sequela of Enteric Fever.—An interesting communication on the above subject has been made to the *Revue de Médicine* (*vide* Nos. 1 and 2 for this year) by M. Barié. The conclusions at which he arrives may be summed up as follows:—Acute arteritis after typhoid fever is especially liable to occur in the main arteries of the legs, and is generally uni-lateral. It comes on at the commencement of convalescence, just as the patient is beginning to walk again, and is as likely to follow a mild attack as a severe one. He makes out two forms, viz., acute obliterative arteritis, and acute parietal arteritis, but they differ only in degree. The former is the result of a cellular infiltration of all the coats of the artery with a roughened state of the lining membrane; this is followed by the formation of a thrombus firmly adherent to the walls. If the obstruction is complete and there are no anastomoses, dry gangrene speedily makes its appearance. The chief

symptoms and signs are pain along the course of the arteries, sometimes limited, at others extending the whole length of the limb, and increased by pressure or exertion; marked diminution in the fulness of the pulse wave; swelling of the affected limb without œdema or redness, but followed sometimes by a violet mottling; lowering of the temperature of the affected limb; and lastly the appearance of a hard and painful cord along the course of the artery. The parietal form is to be distinguished from the above by the general mildness of the symptoms, the absence of the cord-like swelling or dry gangrene, and by the fact that recovery always takes place. As to whether the symptoms might not be due to embolism, could only be decided by a careful examination of the heart, and a search for other signs of embolism. M. Barié is of opinion that typhoid arteritis results from two principal factors, viz., local and permanent irritation by parasitic and infectious germs, and profound disturbance of the vaso-motor nerve supply.

Dependence of Asthma on Disease of the Nose.—Macini describes, *Gazz. de Osp.*, 1883, No. 77-79, three cases in which he believes that asthma depended on a pathological condition of the nasal mucous membrane. His first case was a woman, aged 40, who, with the exception of slight emphysema and bronchitis, was in good health. For the last two years her nose had been partly stopped up, and she was obliged to breathe constantly through her mouth; she frequently suffered from true asthmatic attacks, chiefly by night. On examination it was found that the nasal mucous membrane was greatly swollen, and that completely blocking the nostrils with cottonwool increased the severity of these attacks. The nostrils were made pervious by the galvano-cautery, with the result of curing the attacks, and enabling her to sleep peacefully. The second case was that of a woman, aged 34, whose right nostril was blocked by mucous polypi; her difficulty of breathing was cured by removing the polypi. The third case occurred in a man, aged 40, who had suffered from his youth from frequent attacks of coryza and difficulty of breathing. He gradually grew bronchitic and emphysematous, and his nose became blocked by considerable swelling of the mucous membrane. His difficulty in breathing increased gradually, till he suffered from attacks of true asthma. As soon as the obstruction in the nose was removed his asthmatic attacks became very much less severe. Macini considers that in these cases the asthmatic attacks were reflex, caused in susceptible persons by a peripheral stimulation of the nerves in the mucous membrane of the nose.—*Centralblatt für Klinische Medicin.*

Rheumatic Hyperpyrexia.—In the *Birmingham Medical Review* for March, Dr. A. H. Carter records a case of this kind, in which a good result followed the employment of the graduated cold bath. In discussing the cause of the excessive fever, he points out that it is the changes which take place in the tissues themselves during the process of oxidation which must be regarded as the proximate cause of fever. These changes own some restraining influence, probably they are under the control of the nervous system. Assuming this to be correct, it is easy to understand that central nervous disturbance, characterised by a certain degree of depression, would be attended with the loss and abolition of the controlling influence referred to, and would be followed by unrestrained destructive changes in the tissues, and the production of an excessive amount of heat. This theory receives support from the presence of nervous symptoms in these cases, for delirium and, to a less degree, insomnia and restlessness are always present. As in these cases the delirium often precedes the rise of temperature, it is clear that it cannot be attributed to this cause, and both probably depend upon some functional central nervous disturbance. The occurrence of delirium in rheumatic fever, if not due to some complication, such as pericarditis, should always make us on the look-out for hyperpyrexia.

Diabetic Neuralgia.—The symptoms of this form of neuralgia, which M. Cornillon (*Revue de Médecine*, March, 1884) would have us to accept as a distinct malady, are much as follows. The onset is sudden, the patient being seized either during the night or on waking with the pain, which may be continuous, may be boring, lancinating, or lightning-like, and is liable to paroxysmal exacerbations. It does not usually come on till the disease is well established. The early morning, the evening, and just after meals are the favourite times for an attack. The pain may be in the muscles and bones, as well as in the nerves. Pressure along the course of the nerves usually exaggerates the suffering. A very marked feature of the affection is its symmetry, which tends to be very exact, though it generally appears on one side first. Of course every neuralgia occurring in a diabetic is not necessarily to be regarded as having a causal relationship with the glycosuria; the points on which we should lay stress in diagnosis being the spontaneous character of the pain, its extreme severity, its abiding nature, and its symmetry. As to the pathogeny of the affection, M. Cornillon considers that the available evidence points to some close association between it and the uric acid diathesis, a connection supported by the fact that, as in gouty neuralgia, the sciatic nerve is the favourite seat of the disease. He believes that the central nervous system (spinal cord) is at fault, but what the exact lesion is he does not surmise. Strict attention to diet and alkalies generally suffice to effect a cure.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 25, 1884.

Dr. George Johnson, F.R.S., President, in the Chair.

Seventy Cases of Dupuytren's Contraction of the Fingers.

Mr. Noble Smith communicated a paper on this subject, of which the following is an abstract:—

Upon examination of the hands of 700 elderly people, 70 cases of indurated and contracted palmar fascia were found. The points to which attention was chiefly directed were (1) the supposed immunity of females from the affection; (2) the cause of the malady; (3) its treatment. 1. Among 440 women were found fifteen cases of indurated, thickened, and contracted fascia alone, and also eleven cases of well-marked Dupuytren's contraction of the fingers. Drawings of some of these cases were shown. 2. As the disease had been attributed to gout or rheumatism, enquiries were directed as to these diseases, and the evidence was against their being the cause. The majority of the individuals were free from common complaints, and seemed tolerably robust; they were mostly old people, the average age being 73; twelve were over 80. Most of them attributed the contraction to some particular kind of work. The much greater frequency with which the right hand was found affected, led one to the supposition that *use* has a material influence. In some cases the hands had, however, been very little used. Some cases occurred from injuries in which the contraction and thickening were exactly similar in appearance to the others. In many cases the hands were affected symmetrically, indicating some other than a local cause. Contraction of the palmaris longus was almost constantly present, and it was thought possible that this might indicate a condition of nerve irritation in some instances. 3. With regard to treatment, the author recommended operation upon the contracted bands of fascia by as few incisions as possible, as opposed to the recommendation that many incisions should be made. The object being to separate the cut parts as much as possible, so that recontraction would be prevented. Cases were recorded to prove the value of this recom-

mendation. It was probable that section of the palmaris longus tendon might be beneficial in the early states of contraction.

Mr. ADAMS thought Mr. Smith's paper a valuable contribution to our knowledge of this affection, which latterly had been attracting considerable attention, especially in America. Dr. Keen, of Phildelphia, had recently published an exhaustive memoir on the disease, and had collected together the largest number of cases that had ever been published. He (Mr. Adams) enquired why the cases occurring among the males had not been sub-divided into two classes, as had been done with the females. The percentage of cases of disease to the number of persons examined was large, viz., ten per cent.—he could not believe that this was anything like correct for the entire population. But if the hands only of a particular class of population were examined, some explanation appeared to be thus afforded. The number of women affected was much larger than his own experience would have sanctioned, and Keen's statistics also contained a smaller percentage of women than Mr. Smith now recorded. Keen believed in a purely local origin. He himself believed the cause to be gout, a disease not infrequently localised itself. His reason for thinking it due to gout were the hereditary nature of the affection; its symmetrical character, and that it attacked both sexes. It was further a disease neither of the labouring classes, nor of artisans, but rather of professional men of the middle and upper classes. As regarded treatment, he believed in a large number of incisions rather than a few as now advocated by Mr. Smith.

Professor HUMPHRY said the meeting had heard two views as to the causation of this deformity, viz., a gouty cause, and a local one. As in many other cases, he thought the truth lay between the two, rather than in either alone. This contraction occurred chiefly in connection with the ring-finger; it was doubtless due to the greater pressure exercised on the corresponding part of the palm by the walking-stick or umbrella, as the case might be, and was symmetrical owing to similarity of the predisposing cause. The metacarpo-phalangeal joint became first affected, then the disease spread to the phalangeal joints. He could scarcely think it depended on contraction of the palmaris longus, but if so, why should it chiefly affect one finger, and not all four fingers. It was curious that a similar deformity did not exist more often in the foot—perhaps it was due to the fact that the foot was always extended; while the metacarpo-phalangeal joints were the more frequently flexed. When it did occur in the foot, it was noteworthy that it affected the phalangeal joint, and was due to contraction of the tendons, while in the hand it was due entirely to fascial contraction, and occurred first at the metacarpo-phalangeal joint.

Mr. CROFT, while admitting that a gouty history was most frequently present in these cases, yet felt, if a few cases occurred in which no such history could be obtained, that there must be some other cause, and that the circumstance was of considerable interest. As regarded the palmaris longus, he thought, as its first action was to flex the wrist, that the wrist ought to be more frequently affected, if its contraction was the real cause of this deformity. Then we should have to be quite sure that it was present in all the cases: in the dissecting room it was found to be frequently absent. He was disposed to hold with the method of treatment by multiple incisions, rather than by a few.

Mr. WALSHAM agreed with Mr. Adams, that multiple incisions was the better treatment; he had tried both, and had come to this conclusion. He advised, however, that the incisions should be made opposite the folds of skin, and not in the furrows. He had not been able to satisfy himself that the disease had any connection with gout.

The PRESIDENT was not satisfied with the evidence that the deformity was gouty; he doubted, for instance, whether, in the patients shown, their habits of life had been such as to lead to gout, and whether they had inherited gout from their ancestors. Then, as Professor Humphry had said, why was it so seldom found in the feet, where gout was ordinarily so common. It might, nevertheless, be due to constitutional cause, other than gout.

Mr. NOBLE SMITH, in replying, said that the only way in which he could account for there being so may as ten per cent. affected with this contraction, was that all the people examined were very old, and in many the contraction had only commenced a few years ago. He had been very careful to exclude all doubtful cases. As to the cause, he thought that the facts he had collected bore strong evidence against the theory of a rheumatic or gouty origin, at least as far as the class from which his cases were obtained was concerned, and he was glad to be supported in this view by the President and by Mr. Croft. He thanked Professor Humphry for his very valuable observations. His paper was a statement of facts rather than theories. With regard to treatment, he still urged the desirability of making as few incisions as possible, with the view of separating the cut ends of the fascia, and preventing reunion and consequent recontraction. He agreed with Mr. Walsham that a sufficient number of cuts should be made to relieve the contraction, but he thought they should be as few as possible. He had seen, and he knew that other surgeons had seen, recontraction follow operation by multiple incisions, whereas in the several cases recorded of rupture of the restricting band of fascia by accident in which case there would be only one division, the contraction had been permanently relieved. In one of the cases mentioned in his paper, the good results remained at the end of twenty years, while the fingers of the opposite hand had in the mean time become contracted. The case represented in two of the drawings, he had operated on in this manner most successfully. Then if such good results could be obtained by a few divisions, surely it was more desirable than making a large number. The latter operation required a much longer time for its performance, and necessitated the use of an anæsthetic, besides which, he thought, he had shown that the ultimate result of the operation, as he performed it, was more likely to be successful than when a great many divisions were made. He was glad that his paper had produced so much interesting discussion.

Three Cases of Xeroderma Pigmentosum (Kaposi).

Dr. RADCLIFFE CROCKER communicated a paper on this subject. The disease, of which the three cases brought forward were examples, was first described by Kaposi in Hebra's "Diseases of the Skin," in 1870, and last year he gave a more extended account of it. These were the first and only cases of the kind known in England, and consisted of two sisters, aged respectively twelve and ten years, and their brother, aged nine, out of a family of four. Besides the above cases there were thirty-one others known, all bearing to one another a striking resemblance. The disease usually commenced in the first or second year without apparent cause, affecting the exposed parts of the face, neck, and extremities. It spread slowly, reaching as low as the third rib in front and up to the middle front of the upper arm. In the first stage red blotches or spots appeared, which faded, leaving lentiginous pigment spots; or the freckles might be the first noticed, and tend to increase in number, size, and depth of colour. Soon the skin became very dry, and white atrophic spots appeared between the lentigenes, which coalesced into larger areas. The skin in parts peeled off in thin lamellæ, and subsequently became contracted and parchment-like. Some years after the onset superficial ulcerations covered by crusts appeared, and verrucose projections could be felt in the position of some of the pigment spots. These terminated the second stage. From the fourth to the sixth year the third period began. The verrucose projections and the sores became the starting-point of fungating epitheliomas. The patients, whose general health had previously been entirely unaffected, became marasmic and died exhausted, or, in a few cases, from generalisation of the cancroid tumours. Death usually occurred before puberty, but both onset and termination might be deferred. Of the whole thirty-four cases the number of males and females

affected was equal, but if attacking several members of a family, it usually limited itself to the members of one sex only: seven boys having been affected in one family, and five girls in another. Other ætiological factors were few. Congenital but not hereditary exposure to the sun had been suggested as a possible exciting cause in a few cases, but distinct evidence was wanting on this point. Treatment, whether to cure or even arrest the fatal course, had been completely futile. The disease was *sui generis*, apparently a primary atrophy of the skin, and if the history and all the characters of the disease were considered, xeroderma pigmentosum could hardly be mistaken for any other affection.

Dr. Colcott Fox said that he saw the same three cases in 1882, when they were exhibited at a sister society as phases of lupus, and he claimed the credit of having pointed out their real nature on that occasion, and their special interest as examples of Hebra's Xeroderma. He was in possession of a water-colour drawing of the elder child, executed at that time, which showed the progress the disease had since made, and of sections of a growth, which displayed all the characters of rodent ulcer. As the time of the Society had expired, he would only mention one point in Dr. Crocker's paper, viz., the positive way in which he had described the affection as an atrophy. But, in truth, there was great divergence of opinion in this respect. Kaposi, indeed, suggested, and in this he was followed to a great extent by Neisser, that it began in atrophy of the papillary vessels, and that the pigmentation, teleangeiectasis, &c., were secondary, but Dr. Taylor, of New York, held strongly the opinion that it was primarily a new growth of vessels, and it might be truly said that so little had the early stages of the affection been worked out as yet, that no two observers were agreed as to the exact sequence of events.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Friday, March 14th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

The President announced that the Council had resolved to make a donation of twenty-five guineas to the Wheatley Memorial Fund, and expressed the hope that this contribution from the Society as a whole would not act as a check upon the generosity of individual members, but rather stimulate them to aid more effectually the objects of the Fund.

Multiple Hepatic Abscesses in a Boy.

Dr. Samuel West related the following case:—A Jewish lad, aged eleven, who had never lived out of London, had a rigor on January 21st, and pain in right hypochondrium. He was brought to the hospital on February 20th, with evident hepatic abscess, extremely ill, and temperature of 105°. On February 23rd, a large abscess aspirated, 13 ozs. of greenish sweet pus removed. Four days later, free incision, 7½ ozs. of turbid purulent fluid; a second abscess discovered and aspirated, 1 oz. of blood-stained pus removed. On March 6th, the two last swellings were again prominent, and were freely laid open, and a drainage-tube inserted. On April 9th, a fresh abscess was found, explored, and then freely laid open. From this time convalescence commenced, interrupted only by a diffuse abscess in abdominal walls, which healed on being opened and washed out. Points of the case:—1. The age, eleven years. 2. The number of abscesses, three or four, and probably more. 3. The absence of any assignable cause. 4. The great relief by evacuation. 5. The rapid fattening during convalescence.

Dr. Carrington thought that this case formed one of a group of which he had seen several examples at the Seamen's Hospital. He believed there was every reason to regard them as idiopathic, since in so many cases no primary cause for hepatic abscess could be discovered. In a case recorded by Dr. Goodhart, in the "Pathological Society's Transactions for 1881," the liver had been found studded with scars with caseous centres, apparently the result of a previous pylephlebitis, but proving the undoubted curability of such cases. The symptoms of hepatic abscess were not constant, but he laid stress on the importance of enlargement and local pain. Many other characteristic symptoms were as often absent as present. He mentioned a case in which high temperature, sweating, wasting, and enlarged liver had been found to be due to simple cirrhosis. He thought that a high temperature in cirrhosis was a more frequent occurrence than was usually supposed.

The President took exception to Dr. Carrington's statement as to the diagnostic value of pain and enlargement of the liver. He related particulars of cases in which the diagnosis of hepatic abscess had been made without the aid of special liver symptoms, and mentioned especially the value of local friction sounds in determining the local lesion when general symptoms of suppuration were present. In one case of single abscess thus diagnosed, no cause for suppuration could be found.

Dr. Cullimore, who had himself suffered from hepatic abscess, could fully corroborate the President's statement as to the occasional absence of pain and enlargement. In his own case the diagnosis had not been made until the abscess had burst through the lung. He would like to ask whether a large abscess could exist without any rise of temperature, and referred to a case in which, for a long time, no such rise had taken place. During one of the famines in India he had found abscesses in the livers of natives, who had died of starvation, without any evidence of intestinal or other lesions which might account for them.

Dr. J. K. Fowler referred to some observations, published by himself last year, clearly illustrating the possibility of diagnosing abscess of the liver from the stethoscopic signs of serous membrane inflammation. A case had lately occurred in which enlargement of the liver had been attended with sweating, pleuritis, and œdema of the superficial tissues, but no rise of temperature. Hepatic abscess was diagnosed, but the patient refused all operative treatment. The case ultimately proved to be one of amyloid disease, without abscess.

Dr. Mahomed referred to the clear distinction drawn between simple abscesses and those of pyæmic origin, and pointed out that the simple form was not of necessity large and single, although usually so. The term "multiple abscess" was usually employed to indicate the pyæmic variety. He mentioned a case admitted into the London Fever Hospital as enteric, but which proved to be pyæmic hepatic abscess. The patient had always shown a marked objection to lying down or to moving on the right side.

Dr. Percy Kidd related a case of hepatic abscesses in which no cause could be found *post-mortem*. Friction sounds had been heard at the base of the right lung. One of these abscesses was in the upper part of the right lobe behind, a second at the lower margin of the liver, and the third appeared to be burrowing round it.

The President called attention to the importance of observing the common seat of such abscesses, in order to determine the proper point for puncture. He believed that to puncture high up in the posterior axillary line was preferable to penetrating from before backwards.

Mr. R. W. Parker would ask Dr. West what positive proof had been present in his case, that the abscess had been in the liver at all. He mentioned a case which had closely simulated hepatic abscess, although due to burrowing of pus from an empyema between the liver and the diaphragm. He had since seen several cases of pus pent up in this situation.

Dr. White related particulars of a case, resembling gallstone colic, in which an abscess had been found, and successfully evacuated, in the left lobe of the liver. No cause whatever had been discovered for the suppuration.

Mr. R. J. Godlee advocated free opening of hepatic abscesses and careful antiseptic treatment. In the case of deep-seated abscesses, opened from behind, drainage might be established. Unless free relief were given to the pus

there was always a tendency to burrow through the liver tissue.

Mr. Henry Morris thought that all surgeons would agree in the propriety of giving free exit to the pus in such abscesses. He believed that as a general rule the cases in which openings were made through intercostal spaces were less successful than those opened below the lower margin of the thorax.

Mr. Golding Bird cited three cases in support of Mr. Morris's view.

Dr. S. West, in reply, thought that as regards the temperature in these cases it was probable that collections of pus might be present in the liver without fever, just as they occasionally occurred in other parts of the body. In his own case there had been marked fluctuation of temperature. He mentioned one of the last papers written by Dr. Murchison which dealt especially with hepatic intermittent fever. He had used the term "multiple" as descriptive; the case was certainly not pyæmic. He agreed with Mr. Morris as to the unsatisfactory results of tapping through an intercostal space. There could be no doubt as to the seat of the abscesses in his case.

Foreign Body in the Œsophagus—Œsophagotomy.

Mr. Butlin communicated the following case:—The patient, a man, aged 45, swallowed a gold plate, bearing four teeth, and having two long pins, during the night. The plate was impacted opposite the cricoid cartilage, where it produced serious spasmodic attacks of dyspnœa, and constant dysphagia. Since it could not be dislodged by means of forceps, &c., œsophagotomy was performed about twelve hours after it had become impacted. The plate was removed without difficulty; the patient progressed well during the first two days after the operation, then rapidly died of acute septic poisoning. Attention was particularly drawn to the difficulty of detecting the nature of an impacted body by sounding; to the difficulty of seizing the plate with forceps; to the results of swallowing fluids after the operation. It was contended that the unfortunate issue of this case ought not to influence the general rule of treatment in similar cases, namely, that œsophagotomy should be performed as early as possible after the impaction of the foreign body, if the body be hard and sharp, and it is evident that it cannot be removed by less formidable means. The cases of œsophagotomy for the removal of foreign bodies do not show a large mortality from septic poisoning; indeed, the reverse appears to be the case, for unless septic poisoning is produced by the presence of the foreign body, it has been rare as a result of the operation.

Mr. Harrison Cripps agreed that œsophagotomy had been the only treatment possible in this case. In cases, however, where the foreign body had become fixed lower down in the œsophagus, he thought that it would be advisable to push it into the stomach, the unrestricted passage of foreign bodies through the lower part of the alimentary canal being very commonly observed. He related the particulars of one case in which a large hair-pin had become fixed in the stomach, being subsequently extracted from the small abscess to which it had given rise.

Mr. Golding Bird thought it worthy of remark that so many of these cases, of accidental swallowing of foreign bodies, recovered. He gave the details of a case, in which, in less than an hour, a set of artificial teeth had passed down the œsophagus to the stomach. Being treated with thick oatmeal gruel, the patient ultimately evacuated the teeth per anum without trouble, but a small peri-œsophageal abscess ensued, probably as the result of injury inflicted by the plate in its passage downwards.

Dr. Glover advocated the use of emetics, and related a case in which a large piece of bone was successfully ejected from its position in the œsophagus by means of vomiting thus induced. In cases where swallowing was impossible, he would employ apomorphia subcutaneously.

Mr. Edmund Owen asked why the operation had been deferred for so many hours. He thought the use of emetics might, at times, be dangerous, as in a case lately seen in which artificial teeth had severely scraped the œsophagus in their downward passage, and were likely to do still further damage if violently ejected. He did not think that foreign bodies would be likely to stick in the œsophagus when once they had passed into the thoracic portion.

Dr. Duffin described an ingenious device adopted by Professor Syme for removing a fish-hook from the œsophagus, by striking off the barb.

The President referred to another case under Mr. Syme, in which a foreign body had penetrated the aorta.

Mr. Butlin, in reply, agreed with Mr. Golding Bird, that abscesses were liable to follow slight injuries to the œsophagus. He had delayed the operation in his case simply from want of room and of skilled assistance. It had been found that the gold plates used for artificial teeth might be easily broken if first treated with mercury, but the proceeding was hardly feasible when the plate was impacted in the œsophagus.

The following living specimens were exhibited:—Perforating ulcer of the foot by Mr. E. Owen; two cases of perforating ulcer, by Dr. Duckworth; congenital dislocation of patella, by Mr. Golding Bird; dislocation of patella, by Mr. Godlee; myxœdema, by Dr. James Anderson.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 5th, 1884.

H. Gervis, M.D., F.R.C.P., President, in the Chair.

Dr. Horrocks showed a wooden ring heavily coated with a deposit of lead from the use of lead lotions. It had been worn for five years.

Mr. Thornton showed a fibro-cystic myoma of the uterus, with both ovaries attached, removed from a single woman, aged 40. The patient recovered. Also a large fibroid uterus, with separate sub-peritonæal fibroids, small multiple cysts of the left ovary, and a large multi-occular tumour of the right ovary, with broad ligament cysts attached. The patient, aged 40, died of peritonitis on the fourth day.

Dr. Galabin showed (for Mr. Fielden, of the Chichester Infirmary), a cyst removed from the vulva, believed to be a hydrocele of a peritonæal pouch.

Dr. Heywood Smith showed a dermoid cyst of the right ovary, containing skin, teeth, bone, and hair. Also a large fibroid, removed together with the upper third of the uterus, from a woman, aged 39.

Dr. Boxall showed a morbidly adherent placenta, from a syphilitic patient, detached with great difficulty by the fingers. There were several accessory cotyledons joined to the main placenta by a membranous or velamentous inter-space of chorion. Also a placenta, containing a large blood cyst, nearly as large as an orange; the greater part of the fœtal surface being also occupied by old blood clot.

Dr. Barnes showed an ovarian tumour, removed at short notice on account of symptoms of twisted pedicle, viz., sudden access of severe pain, vomiting, and depression of pulse, together with rapid increase in the size of the tumour. The case showed that ovarian tumours should be removed as soon as diagnosed, in order to avoid the numerous accidents to which their owners were liable.

Corroding Ulcer of the Os Uteri.

Dr. Williams referred to the rarity of the disease, to the almost entire absence of any description of it in the systematic treatises on the diseases of women, and to the fact that its existence had been denied by some observers. The disease had been mistaken for cancer, and cancer had probably been mistaken for it. The histories of two cases, which had been under the author's observation for varying periods of time—one for two years and the other for about ten years—were narrated, and the *post-mortem* appearances, together with the microscopic characters of the ulcer in one

instance, were described. The differences between corroding ulcer, both clinical and anatomical, were pointed out, and the views of Sir Charles Clark, that the disease was distinct from cancer, upheld. The disease began at the os uteri, and extended along the vagina, involving the walls of that tissue in a symmetrical manner. Its progress was slow, and two of the author's patients died of their disease, while the third, who had been under observation for ten years, was still living. It was not associated necessarily with loss of flesh, and the pain and discharge were different from those usually met with in cancer of the uterus, and the edges of the ulcer were not hard and thickened. The mode of progress of the ulcer was in one case by means of reddish raised tubercles, which became ulcerated; in another, by slow ulceration, without any preceding change in the tissue about to be invaded, except some redness. The mucous surface to the edge of the ulcer appeared perfectly healthy. Microscopic examination showed this last observation to have been accurate, for the ulcer—its base and borders—presented no appearance, except that of granulation tissue. The case in which the disease presented the characters of lupus was still living. In the second case, which died, and which presented the miscroscopic appearances mentioned, the ulcer appeared to be the result of a slow gangrene, arising from calcification of the internal iliac arteries and their branches.

The PRESIDENT expressed his admiration of Dr. Williams paper, dealing so ably with a rare and interesting disease. He regretted that no autopsy had been allowed in the second case; but, from the results of the autopsy in the third case, the symptoms observed by the writer through a series of years in each case, and the observations of other authors, referred to by Dr. Williams, he thought that the disease must now be definitely withdrawn from the list of cancerous or cancroid affections. Dr. Williams' graphic description might have the effect of bringing cases, hitherto classed under the head of ulcerating epithelioma, under that of corroding ulcer.

Dr. PRIESTLEY said that the rarity of the affection was proved by the fact that some gynæcologists in large practice were doubtful if they had ever seen a case, and that its pathology was much disputed. Thus Kirvisch and Scanzoni regarded it as a variety of encephaloid cancer; Courty and West regarded it as a form of epithelioma. He thought he had seen the characteristic forms of the disease more than once. Sir Charles Clarke described the pain as burning, and not gnawing like that in cancer. He reminded Dr. Matthews Duncan of two cases which he had seen with him, in which a similar affection of the uterine body was not improbable without affection of the cervix. The symptoms were profuse, serous or mucopurulent discharge, with occasional hæmorrhage; the cavity of the womb was dilated, but there was no great enlargement of the organ. Both patients were advanced in age, the disease lasted for several years, death occurred from exhaustion, treatment had little effect. If he saw the disease on the cervix in an early stage, he should try the effect of various caustics. But treatment was not very promising.

Dr. MATTHEWS DUNCAN was deeply interested, for the disease had been the object of his special study for many years, and he believed it to be of the nature of lupus. He was not sure that he had ever seen a case identical with those of Dr. Williams, as to situation, but he had seen many in the lower vagina and external organs. Lupus of the external organs seemed to produce hypertrophies greater than any produced higher up in the passages. He had also seen the disease in the uterus, and one of the cases referred to by Dr. Priestley had been fully described by him in Vol. XXI. of the "Society's Transactions."

Dr. WILLIAM DUNCAN thought Dr. Williams' cases were lupus, which had taken on an epitheliomatous nature.

Dr. CHALMERS thought that the disease was not so rare as had been thought. He had seen two such cases in the last two years, in one case the patient died within a period specified in the prognosis given.

Dr. GALABIN asked Dr. Williams whether he regarded the disease as having any analogy with rodent ulcer of the skin, which was now regarded as a form of rodent cancer. It must either be lupus or a form of cancer in a wide sense. He had examined the uterus in Dr. Duncan's case, and found the deposit thickening the walls to consist of leucocytes, some of them having the suspicious character of being united by tailed processes.

Dr. GRIFFITH had seen a case which he thought similar. There was little pain, no glandular enlargement; it proved fatal in two or three years by repeated and uncontrollable hæmorrhage. No autopsy was allowed, but the left side of the uterus was felt much thickened.

Dr. ROUTH had seen two cases of the disease. There was no induration of surrounding parts, nor fixation of the cervix. The absence of induration made him dissent from the view that it was lupus. Moreover, the ulcer never healed, as it does sometimes for a time in lupus. He suspected a scrofulous or syphilitic taint acting on ill-fed and weakly persons. Similar ulcers had been described by Samuel Cooper. He thought there was some inconsistency in the author's statement that one case was analogous to senile gangrene and another to lupus.

Dr. AVELING said that Dr. Rigby believed that burning pain accompanying this form of ulceration was different from the darting pain of cancer. He asked Dr. Williams how far his observations agreed with this.

Dr. WILLIAMS replied that rodent ulcer was epithelioma, starting from hair follicles and sweat-glands, and corroding ulcer of the cervix could not be such. In one of his cases it appeared to be lupus, for the ring of tubercles with the cicatrix could be nothing else. This patient was still living, therefore no microscopical examination had been made. The third case was, in his opinion, senile gangrene, depending on calcification of the internal iliac arteries and their branches on both sides. He had used the word "malignant" loosely, as equivalent to incurable. He had seen one case of ulceration of the inner surface of the body of the uterus. The patient was over 60 years of age, had suffered long with offensive discharge, and was very fat. She died from other causes. At the autopsy the uterus was large, the walls thickened, the cavity large, secreting a quantity of broken-down dark material. Section of the walls showed nothing except the muscular fibres of the uterus rising to the surface, and in them many round cells, but nothing to indicate malignancy. No local treatment had been pursued.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MARCH 3RD, 1884.

Mr. J. S. TURNER, M.R.C.S., L.D.S., President, in the Chair.

Defective Dentition.

MR. W. HERN showed models of three cases of defective dentition. The first, a boy, age seven, had only four teeth (molars) in the lower jaw, the alveolar ridge in front of these being narrow, and giving no evidence of the presence of any tooth germs. In the upper jaw he had six teeth, four molars and two conical teeth in the incisor region. Both the parents had their full complement of teeth, and so had a younger brother. In the other two cases, the canines were present as well as the molars, but the lateral incisors were absent, and the central small and ill-developed. Here, again, the parents had good teeth; and a younger brother had the proper number. Mr. Hern referred to some similar cases brought before the Society by Mr. Moon a few years ago, in which it was noticed that the elder children had defective dentition, whilst that of the younger children in the same families were normal.

Replantation.

Mr. CUNNINGHAM, of Cambridge, showed a patient for whom he had performed replantation. The tooth, an

upper central incisor, had been knocked out during a game at football, but the patient did not present himself until five hours after the accident. The alveolus was much lacerated, and the tooth very dirty; it was carefully cleansed, the pulp removed, and the nerve canal filled. It was then replaced and secured with silk ligatures. At the end of three weeks it had become quite firm, and was not to be distinguished from its neighbours.

Mr. ACKERY mentioned the case of a girl who applied to him on account of persistent hæmorrhage, following the extraction of a molar tooth sixty-two hours before. She brought the tooth with her, and Mr. Ackery, thinking it would make a capital plug, replaced it in its socket without removing the pulp or treating the canals. The bleeding was at once arrested, and when the patient came again a week later, the tooth was quite firm. She stated that there had been a little tenderness for a day or two, but this soon subsided, and the tooth had given her no pain since, so it was allowed to remain.

A discussion ensued as to how long a replanted tooth might be expected to last, supposing the immediate result to be satisfactory, the general opinion being that the average duration was from five to seven years, though instances of longer duration were to be met with, and that as the operation was not usually attended with much pain or inconvenience, the prospect of retaining a useful tooth for six years was quite sufficient to justify the experiment.

Hammond's Splint in the Treatment of Surgical Division of the Lower Jaw.

Mr. NEWLAND PEDLEY read notes of a case operated upon by Mr. Clement Lucas, at Guy's Hospital, for the removal of a sublingual epithelioma, in which the above-mentioned apparatus gave very satisfactory results. He pointed out that such cases were more difficult to treat than ordinary fractures, owing to the complete division of all the soft parts, and to the smooth surfaces of the cut ends of the bone.

Dental Jurisprudence.

A communication was read from Mr. F. R. LLOYD, of Mussoorie, North-West Provinces of India, relating a case which had been submitted for his decision. A gentleman's servant came to Lahore, saying that his master had been killed by savages while travelling in Kashgur, and that he had brought back his head. But Mr. Lloyd was able to decide, after careful examination of the teeth, that the head must have belonged to a much older man than the gentleman said to have been murdered, and further, that it was the head of a native, and not of a European.

GENERAL MEDICAL COUNCIL.

THIRTY-FIFTH SESSION.

FIRST DAY—MARCH 25TH, 1884.

New Member—President's Address—Election of Executive Committee—Pass and Pluck Statistics—Exceptional Cases—Personation at Examinations.

THE oligarchs who rule the medical profession, and watch over the Corporations, met for their thirty-fifth session, on Lady Day. A bleak March wind was blowing outside, and the Council chamber, which, when the session occurs later in the year, affords such a cool and pleasant retreat from the dust and glare of Oxford Street, struck a chill through every one who entered it. Even the Irish members felt it, and though restless, were more subdued than usual. The Council, indeed, seemed to feel the cold shadow of impending dissolution, and, from this point of view, the low temperature of the room was not inappropriate.

The first business was to receive into the fellowship of the Council, Professor Struthers, who has been appointed to represent the Universities of Edinburgh and Aberdeen. Like his predecessor, Professor Turner, Dr. Struthers is an anatomist, who has made valuable contributions to science, but in other respects the resemblance is not so striking, and it may be confidently expected that the wheels of the Council will not run less smoothly for the substitution.

The President, Dr. Acland, next delivered his usual inaugural address, which, under the circumstances, was shorter and less weighty than many that have preceded it. He alluded to the delay in medical legislation, extending now over fourteen years. It had been asserted that this delay had been owing to the action, or inaction, of the Medical Council; but history would show the contrary to be the fact. It must be admitted, however, that the persistent determination that no Bill, whether for the purpose of educational progress, or for the settlement of matters affecting the profession in its relations to the colonies or to foreign countries, should be permitted to pass, unless the Council were altered in its constitution, had practically produced the result of hampering that educational progress, and causing waste of time, suspense, and uncertainty in all existing medical schools, and in the examining boards. The time had come when they ought strenuously to endeavour, individually, if not collectively, to bring every influence to bear which might aid in settling medical legislation for some years to come, during the present session of Parliament; otherwise, there would be a continuance of unsettlement, misgiving, and agitation. The main principles of the Government Bill were four, viz.:—(1) To ensure one final pass examination in each branch of the kingdom, all three being reasonably uniform. (2) To appoint three medical boards which shall regulate the chief educational details, in the place of the branch councils. (3) To alter the mode of appointment of the supreme general council. (4) To amend or enact divers clauses which experience has shown to need revision or addition. It might be fairly assumed that the broad principles here laid down would not, with the present tendencies of political action in this country, be departed from. It seemed to him, therefore, that this Bill was the only way now known of quieting the disturbed state of education in the medical schools, and of getting into a reasonable and more uniform shape the increasing mass of knowledge which our students were required to produce at the examining boards. The President then alluded to the Medical and Dental Registers, and mentioned the statistics contained in them, which have already been quoted in these columns. He further spoke of the cases of Murray, Sadgrove, and O'Hara, which would come under the consideration of the Council, and concluded by stating that they would probably have to meet again for a short session in the summer, by which time it might be hoped that the Medical Bill would have been passed, and their new duties would have been clearly laid down. His own term of office would expire in the summer, and he would reserve till then his last expressions of gratitude and esteem.

The Council next proceeded to ballot for the Executive Committee. A few stray votes were scored by Mr. Marshall, Dr. Storrar, Dr. Matthews Duncan, Mr. Teale, and others, but nineteen of the members voted for the re-appointment of the old Committee in a body, and accordingly Sir Henry Pitman, Dr. Haldane, Dr. Humphry, Dr. Quain, Dr. Aquilla Smith, and Mr. Simon were declared duly elected.

The Pass and Pluck Statistics for 1883 of the various professional examinations were then presented to the Council. From these it appeared that in the first examinations taken together, 2,579 were passed, and 1,592 rejected; in the second, 815 were passed, and 424 rejected; and in the third, 2,700 were passed, and 1,102 rejected. The most difficult diplomas to obtain would seem to be the Mastership in Surgery of Durham University, and the licence under the new scheme of the Irish College of Surgeons. In the former examination, one passed, and eleven were plucked; in the latter, seventeen passed, and 100 were plucked; but, as Dr. Macnamara pointed out, these last figures are in all probability erroneous.

Before these returns were ordered to be entered on the minutes, Dr. Aquilla Smith gave some interesting comparative statistics, and showed that many of the examining boards were now rejecting twice, and even three times, as many candidates in proportion to those passed, as they had done in 1869. The chief exception to this rule occurred in the case of the Glasgow Faculty, which rejected 43 per

cent. of the candidates in 1883, against 44 per cent. in 1867. From these figures Dr. Smith inferred that the Corporations were now more alive to their responsibilities than they used to be, but the unprejudiced observer may possibly attribute the improvement on their part to a wholesome fear of impending legislation.

The next business before the Council was a table, containing the reports of the Corporations as to the number of exceptional cases, in which the requirements demanded of candidates had been modified. The English Colleges of Physicians and Surgeons, it appeared, had had respectively 26 and 22 such cases before them, all candidates from colonial and foreign schools; the other corporations had had to deal with comparatively few cases. A brief discussion arose on the subject, in which Dr. Macnamara laid himself open to the dry light of Sir Henry Pitman's facts, and the drier humour of Mr. Simon.

Certain communications in regard to the case of Arthur Augustus Sadgrove were then received, and ordered to be entered in the minutes, but the further consideration of this case was postponed.

A communication from the Provincial Medical Board of Nova Scotia gave the Rev. Dr. Haughton an opportunity of detailing his experience of preliminary examinations throughout the world, from which he had formed the bold generalisation that the Southern hemisphere—including Australia, New Zealand, and Ceylon, but not, apparently, South America—was farther advanced in preliminary education than the Northern hemisphere. He would hesitate, without further enquiry, to recognise the competency of the Provincial Medical Board of Nova Scotia to examine in mechanics and hydrostatics, and, indeed, he thought that medical boards generally knew nothing about those subjects. As, however, no one proposed to recognise the Nova Scotia examination, and as the general question of the competency of medical boards was not before the Council, the Rev. Dr. Haughton's remarks were merely the expression of pious opinions, and the Council passed on to the next business.

This was a letter from the Council's solicitor, stating that counsel had advised that "the offence of giving a false certificate of the cause of death, under Section 40 of the *Births and Deaths Registration Act*, 1874, was clearly a misdemeanour, and punishable by fine and imprisonment." After some discussion, the room was cleared of strangers in order that the Council might have the opportunity of hearing counsel's opinion read in full.

The Council next had before them the report of the Executive Committee on personation at preliminary examinations. In 1882 the Council decided that it was desirable that it should know what precautions are taken to prevent personation at the various preliminary examinations recognised by it, and it requested the Executive Committee to enquire into and report upon the matter. The Committee accordingly made enquiries and received replies from twenty-one bodies, after considering which they determined to recommend the Council to suggest to all examining authorities that, except so far as they may have in use other and better means of identifying candidates, precautions as follows should be taken—1. That each person desiring to present himself for examination by any examining authority should be required to make previous application to the authority in a prescribed form, signing his name to the application, and having his signature attested in a way which would suffice for its authentication. 2. That each examining authority should keep a signature-book for the candidates who present themselves for examination, each of whom should be required to sign his name in the book in the presence of an officer of the authority. The Committee also recommended that if the report were approved, copies of it, with the appended answers, should be sent to the several examining bodies concerned.

On the proposal to enter on the minutes the two recommendations of the Committee, the Rev. Dr. Haughton proposed to add a third, namely, "that the English language papers of each candidate who is examined be signed by him, and be preserved together with the before-named signatures for comparison, so far as may be necessary with his handwriting at subsequent examinations." Dr. Humphry and Mr. Simon, the movers of the resolution, expressed their willingness to accept Dr. Haughton's proposed addition, but Mr. Teale pointed out that the proposal would not work if the candidate went before another body for his subsequent examination.

After further remarks from Dr. Macnamara, Dr. Watson and Mr. Simon, the Rev. Dr. Haughton withdrew his proposal.

The two recommendations of the Committee were then ordered to be entered on the minutes, and the Council adjourned.

Second Day—March 26th.

The Cases of O'Hara, Murray, and Sadgrove—Personation at Examinations.

On Wednesday, the members of this august body resumed their labours with commendable punctuality. The first business was to decide whether the name of one Dr. O'Hara should be re-entered on the Register. He had already had his name replaced on the Register in Dublin. It appeared that in 1882, the name of Daniel Murray O'Hara, M.D., was struck off the Register, because no answer had been received from him, he being at the time resident in Australia. About the same time, the name of Owen Patrick O'Hare, M.D., was struck off the Register, as he had been convicted of felony. The question they had to decide, was whether the person who had been re-registered in Dublin as Dr. O'Hara, was really O'Hara, or as was suggested, whether he was the Dr. O'Hare who had been convicted of felony. The so-called Dr. D. M. O'Hara, had been summoned to appear before the Council, but instead he sent a medical certificate to the effect, that he was suffering from angina pectoris, and was not in a fit state to travel. A little diversion was created during the reading of this certificate, by one of the representatives from the sister isle taking objection to the President's mode of pronunciation of the word angina. The only real evidence, one way or the other in the case, was that of Mr. J. C. Needes, the medical agent. He had known Dr. O'Hare well in 1882, having transacted some business for him, and had then many opportunities for becoming familiar with his personal appearance. A week ago he had received a letter, dated from Prescott, from Dr. D. M. O'Hara, saying he wished to sell his practice in that town. That very morning, the said Dr. O'Hara, had called upon him about the sale of the practice, and he had at once recognised him as the same man, whom he had known in 1882, as Dr. O. P. O'Hare; on this point of the identity he was quite positive, the man whom he had seen that day was lame, and walked with a stick, just as Dr. O'Hare did in 1882. He produced the letter which he had received a week ago, and also some he had received in former times from Dr. O'Hare; in his opinion these letters were all written by the same hand, but in this view some of the Council did not concur.

O'Hare and O'Hara were fellow students at the same hospital, and both held the same diplomas, viz., M.R.C.S. Eng., and M.D.Q.U. Ire. As it appeared that before the name could have been replaced on the Irish Register, the diplomas must have been sent to the office, it was to be presumed that if the present man was O'Hare, and not O'Hara, he must, in some way, have possessed himself of the latter's certificates. As there was no other evidence forthcoming, the Council communed with themselves in privacy, and those who had the patience to wait during the full half hour that their deliberations lasted, were rewarded for their pains, by learning from the lips of the President on re-admission, that the Council had decided to decide nothing, until they were in possession of further evidence.

This business having been thus disposed of, the Council resumed the consideration of personation at examinations, and after a proposal by Dr. Patrick Heron Watson had been negatived, they accepted the resolutions put before them by the Executive Committee, as modified by Mr. Simon. The purport of these resolutions was, that every one desiring to present himself for examination should apply on a prescribed form, and have his signature duly attested; and that candidates, on presenting themselves for examination, should be called upon to sign their names in a book, and the two signatures could then be compared. Professor Humphry's

resolution, "That a copy of the above resolution, with the 'answers,' be sent to each of the several bodies, the certificates of which are accepted by the Council as satisfactory evidence of Preliminary Examination," was carried without opposition.

After a brief adjournment, the Council passed to Dental Business, and considered the report of the Dental Committee in the cases of J. P. Murray and A. A. Sadgrove. J. P. Murray had had his name erased from the Medical Register, for being engaged in kidnapping, and subsequently killing some Fiji islanders, and the British Dental Association requested that the facts should be considered by the Council, with a view to the erasure of the name from the Dentists' as well as the Medical Register. The offender had been announced to appear before the Council, on this day at four o'clock, but he failed to put in an appearance, and it was understood that he was far away in the wilds of Africa. The Council, therefore, proceeded to consider his case in private, and the room was again cleared of strangers. On their readmission, it was notified that the Council had judged J. P. Murray to have been guilty of infamous conduct in a professional respect, and had accordingly ordered his name to be erased from the Dentists' Register.

The Council then passed on to the case of A. A. Sadgrove, whose name had been erased from the Medical Register for falsely and fraudulently holding himself out to be a Licentiate of the Royal College of Physicians of London, and a Licentiate of the Royal College of Surgeons of Edinburgh. He had also been charged with unlawfully and willfully uttering a forged document, purporting to be a diploma of the Faculty of Physicians and Surgeons of Glasgow, and a long correspondence in connection with this charge was placed on the Council minutes for Tuesday last. The British Dental Association suggested to the Council that his name should also be erased from the Dentists' Register, while Sadgrove, on his side, had written to the Council, "not as a criminal, but as a gentleman who has been shown that only gentlemanly conduct will be tolerated in the profession to which he belongs," reminding the Council that "mercy rejoiceth against judgment," and begging that his name should be restored to the Medical Register. The Executive Committee, however, had remained deaf to his appeal, and informed him that they saw no reason to recommend the restoration of his name to the Register. These facts now (Wednesday) came within the cognisance of the Council, and Sadgrove appeared before it, and was heard in his defence. The case was considered *in camerâ*, and on strangers being readmitted, exactly the same resolution as had been passed in Murray's case was announced to have been passed *nomine mutato* in that of Sadgrove.

A rider to the Council's resolutions on personation at examinations was moved by Dr. STRUTHERS, and agreed to, viz.:—"That the various Examining Bodies be requested to intimate in future to the General Medical Council all cases of personation, with a view to the cases being communicated to the Examining Bodies recognised by the Council."

A communication from the College of Preceptors, containing a statement of the results of the preliminary examination, for medical students and others, held by the College on the 4th to 6th of September last, was read, and ordered to be entered in the minutes; the thanks of the Council being accorded to the College of Preceptors for the information contained therein; after which the Council adjourned.

THIRD DAY—MARCH 27TH.

Dental Business—Funeral of Dr. A. Thomson—The Colleges and the Conjoint Scheme—Unqualified Assistants—International Congress—Finance and Pharmacopœia Committees—Preliminary Examinations.

Business was opened punctually by the reception of a report on dental business, showing the results of examinations held under the Dentists' Act during 1883; 86 candidates had passed, against 19 plucked, a large number of diplomas still being conferred by the Irish College of Surgeons, without curriculum. Reference was made by the President to the death of Dr. Allen Thomson, and he suggested that a deputation from the Council should attend the funeral at Euston station during the afternoon. The proposal was unanimously adopted, and three members representing the three divisions of the Kingdom, were at once requested to carry it out. On their return from paying this mark of respect to the late Professor, the President of the College of Surgeons spoke feelingly of the scene just witnessed.

On a motion to receive upon the minutes two letters from the Colleges of Physicians and Surgeons respectively, withdrawing from the Conjoint Scheme of 1877, a long discussion took place, upon a suggestion, emanating from Dr. Quain that before accepting these letters some explanation should be demanded from these and other corporations as to the reason why the Conjoint Scheme had never been put in force. It was made clear by the President and others that the Conjoint Scheme itself fully provided that any of the parties thereto might at any time withdraw from it on giving due notice. Ultimately a resolution was carried by the Rev. Dr. Haughton, under which the question was postponed till the following day, not without some protest on the part of Sir H. Pitman and others, to whom the reopening of the subject of the Conjoint Scheme appeared neither germane to the question nor desirable in itself.

Two letters from the Privy Council Office and from the General Register Office respectively, in reply to the communication of the Council of May 14th, 1883, on the subject of unqualified assistants and their irregularities, were received, and a suggestion conveyed from the Registrar-General that the Council should formulate a clause upon the subject for insertion in the Medical Acts Amendment Bill, was deferred for future discussion. A letter from the Science and Art Department, at South Kensington, with reference to the appointment of a delegate to attend the Congresses at Copenhagen and the Hague, was received without comment.

The report of the Finance Committee, showing a very flourishing state of accounts, was adopted. The excess of income over expenditure during the past year amounted to 3,494*l.* 1*s.* 0*d.*, as against an excess during 1882 of 2,343*l.* 17*s.* 10*d.* In proposing the adoption of the report of the Pharmacopœia Committee, Dr. Quain took occasion to make a suggestion, which was eventually agreed to by the Council, that the fees and expenses of the members required to attend special meetings of the Committee should be paid by the Treasurer. Upon a report of the Preliminary Examinations Committee, in reply to a letter from St. Thomas's Hospital calling attention to the frequent evasion of one of the regulations, a long discussion took place, in which two important points were raised. The subject of elementary mechanics, would appear to be frequently avoided by candidates for registration, owing to the fact that under existing rules, it is left open to them to take the subject up at any future period of their medical career, after the preliminary examination. In England, however, it was clearly shown, that no facilities exist for examination in the one subject alone, although, according to the Irish and Scotch representatives, the difficulty is avoided in their respective schools by the different systems of examination. The Registrar pointed out that he had no means of telling whether the regulation had been complied with in every case, nor were the branch registrars in any better position. An expression of opinion by Dr. Matthews Duncan, that some rule should be made to meet the apparent failure of the existing plan in England, did not meet with so much favour as a proposal by Sir Henry Pitman, supported by the President and many other speakers, to enforce the present rule as it stands. The importance of the subject of mechanics and hydrostatics was insisted upon by Mr. Simon, but he clearly showed that, while a good knowledge of it was essential to the practitioner of medicine, it was less important to the commencing student. The possibility of a speedy dissolution of the Council, referred to in the Report was somewhat severely descanted upon by various members, of whom many, and especially those from the Sister Isle, expressed neither fear nor apprehension that their present labours were likely to be rendered null and void by any approaching legislation.

The subject of preliminary education in general was deferred for further discussion on the motion of the Rev. Dr. Haughton.

OBITUARY.

JOHN HALL DAVIS, M.D. Lond, F.R.C.P. Lond.

In Dr. Hall Davis, whose death occurred suddenly on Wednesday week, the obstetric branch of the profession in London has lost one of its most prominent and most highly respected members. He was not by any means advanced in years, and had only just resigned his post of Obstetric Physician to the Middlesex Hospital. He received his medical education at University College, and graduated as M.D. at the London University in 1845, the year after Sir W. Jenner, and the year before Sir W. Gull took the same degree. He became a member of the Royal College of Physicians in 1851, and soon after was appointed Physician to the Royal Maternity Charity, a post he held for over thirty years. Later on he was elected a Fellow of the Royal College of Physicians, and appointed Obstetric Physician and Lecturer on Obstetric Medicine to the Middlesex Hospital. He was one of the earliest Presidents of the Obstetrical Society, and held office during 1867-68, at the time of the Baker-Brown controversy. He devoted his attention more to midwifery than to gynæcology, and published contributions on "Puerperal Convulsion," and "Chorea complicating Pregnancy." Dr. Hall Davis was a man of high personal character, and of sound judgment, with a thorough knowledge of his profession and his own specialty. He was of an amiable and conciliatory disposition, had many friends and no enemies. He was not highly endowed with energy or originality, but he has left behind him an example of honest and quiet work, unstained by the jealousies and rivalries that so often go hand-in-hand with higher attainments.

ALLEN THOMSON, M.D., LL.D., F.R.S. Ld. and Ed.

In the fulness of years has passed away one who was, perhaps, the centre of more affectionate regard than any other member of our profession. Allen Thomson was born in Edinburgh in 1809, the son of Dr. John Thomson, who was Professor of Surgery in the Edinburgh University, and a man of great power and culture. His maternal grandfather was Prof. John Millar of Glasgow, a well-known writer on constitutional law. Allen Thomson received his early education at the High School, and his medical education at the University of Edinburgh. He subsequently studied at Paris, but returned to Edinburgh to take his M.D. degree in 1830. The next year he was elected a Fellow of the Royal Society of Edinburgh, and, in association with Dr. Sharpey, began to lecture on the Institutes of Medicine in the Extra-Mural School. He had already entered upon the embryological studies, in which he afterwards made his name, and contributed some valuable papers connected with this subject to the *Edinburgh New Philosophical Journal* in the same year that he took his degree. On the removal of Dr. Sharpey to London in 1836, Dr. Thomson began to lecture in the Extra-Mural School on Anatomy, and continued this work until he accepted the Professorship of Anatomy at Marischal College, Aberdeen. This post he filled for three years. He was then recalled to Edinburgh to take the place of Dr Alison as Professor of the Institutes of Medicine in the University, and six years afterwards, in 1848, he was appointed by the Crown to the Chair of Anatomy at Glasgow. This chair he held until 1877, when he finally retired from active life, and took up his residence in London. He served at various times as councillor, vice-president, and president of the Glasgow Philosophical Society; and from 1859 to 1877 represented the Universities of Glasgow and St. Andrews on the General Medical Council. The degree of LL.D. was bestowed on him by the University of Edinburgh in 1871; and by that of Glasgow in 1877; while in 1882 the University of Oxford conferred the corresponding distinction of D.C.L. At the Edinburgh meeting, in 1871, of the British Association, Professor Thomson presided over the Biological Section, and in his address took occasion to make an attack on spiritualism, which gave rise to some lively discussion. At the Glasgow meeting, in 1876, he was one of the vice-presidents, and the Plymouth meeting, in 1877 found him in the distinguished position of President of the Association. The address, he delivered on that occasion was devoted to an exposition of the gradual acceptance of the Darwinian theory, and was regarded on all sides as a most able contribution to current thought. Since 1877, Dr. Thomson has been a well-known and much welcomed figure in the scientific societies of the metropolis, and his counsel has been freely sought in many matters connected with his own branch of study, especially in regard to the appointment of anatomical lecturers in all parts of the country.

Dr. Thomson was great, both as a teacher and as an investigator. In the former capacity, he was always successful in securing the respectful attention, and in many cases the devoted attachment, of his pupils. As a writer, he was not copious, but his contributions to science were of great importance. The chief results of his work are to be found in an article on the "Early Stages in the Development of the Human Embryo," published in the *Edinburgh Medical and Surgical Journal*; in a paper on "The Origin of Double Monsters," in the *Edinburgh Monthly Journal of Medical Science*; in the articles, "Circulation," "Generation," and "Ovaries," in "Todd's Cyclopædia of Anatomy;" in various articles in the *Encyclopædia Britannica*; and in a series of papers communicated to the Royal Society. He was one of the editors of the sixth, seventh, eighth, and ninth editions of "Quain's and Sharpey's Anatomy."

A man of liberal thought, and wide culture, of most generous and sympathetic disposition, and with a power of influencing his fellows possessed by a few, Allen Thomson possessed an individuality which will long make him remembered by all who knew him.

GENERAL CORRESPONDENCE.

SHIP-SURGEONS.

[To the Editor of the Medical Times.]

Sir,—I am glad to find from a letter in your impression of Saturday last, as well as from several communications I have received, that the suggestions I made in the columns of *The Times*, of December 24th, that ship-surgeons should enrol themselves into a Mercantile Marine Service, meets with the approval and staunch support of ship-surgeons in general. I would advise your correspondent, who writes from Port Said, and others interested in the scheme, to place themselves in communication with Dr. Irvine, whose name is intimately associated with the movement, and lay their grievances before Parliament. Now is the appointed hour, "they must take the current as it serves, or lose their ventures," always remembering that "that work which is begun well, is half done," and that "opportunities, like clouds, pass away." The question might very well form part and parcel of the Merchant Shipping Act now before the House of Commons, a few of the shortcomings of which I have pointed out in a lengthy paper in your contemporary, *Land and Water*, of Saturday, March 22nd. In conclusion, allow me to reiterate the statement, that superintendents of mercantile marine do not always require a ship-surgeon to produce evidence of possessing legal qualifications. If necessary, I am prepared to adduce facts, the veracity of which cannot be impugned, corroborative of my assertion.

I am, Sir, Yours, &c.,

W. DOMETT STONE, M.D.

19, *Oxford Terrace, Hyde Park, W.*

SNAKE POISON.

[To the Editor of the Medical Times.]

Sir,—Permit me to say in reference to Sir Joseph Fayrer's statement, at page 146 of the current volume of this journal, that snake poison cannot be swallowed with impunity, which he says is contrary to *all former and universal belief*; that

nearly forty years ago, when speaking in this same periodical of a sect of African poisoners, among the slaves in this country, I mentioned the venoms of the serpent and of the toad, as amongst their most deadly arms. All the population of San Paulo, a country as extensive as France and England united, has known from time immemorial that snake poison taken into the stomach *kills*. In Africa also this must be known, as evidenced by the practices of the Feitiçeiros (Feitisseiros) or poisoners. This is far from being the first occasion when I have seen ignored statements of fact, or suggestions, contained in my letters to the *Medical Times*, of which the first bore date (*salvo errore*) of 1843.

I am, Sir, Yours, &c.,

RICHARD GUMBLETON DAUNT, M.D. Edin.

Campinas, San Paulo, Brazil.
February 27th, 1884.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Fellows and Members of the College was held on Monday last.

The PRESIDENT, after taking the chair, briefly explained the objects for which the meeting had been summoned, viz., to sanction principles rather than lay down in definite terms the particular form which certain proposed alterations in their Charters should assume: this latter point would have to be determined by their legal advisers. After the printed proposals had been disposed of, it would be open to members to make any further suggestions, provided always they had reference to the Charters.

The first alteration proposed was in the Section of the Charter of George IV., which restricts the amount of property in lands or rents to be held by the College to 2,000*l*. The Council now advise that this amount be increased to 10,000*l*. This was carried after a short discussion, which turned on the advisability of still further increasing the amount. The President pointed out that a definite sum must be mentioned, and that it ought not to be too large.

It was next proposed that Section 5 of the Charter of the 7th Victoria be altered, so as to provide that the conditions of admission to the Fellowship by examination, and the arrangements for the examinations, be in future determined by resolutions of the Council, instead of by by-laws.

The PRESIDENT, in answer to a call, explained that at present any proposed changes in these examinations could only be carried out after considerable delay, and after appeal to, and with the sanction of, the Privy Council, and that the hands of the Council were thus much tied. As regarded the examination for Membership, they held the necessary power, and he (the President) thought that if the Council could be trusted in this matter, which was of great moment to the public welfare, they might also be trusted in the lesser matter of the Fellowship examination, which was largely an ornamental diploma, and not merely a licence to practise.

Mr TWEEDY proposed an amendment to the effect, that the proposed changes would tend to the relaxation of the conditions of admission to this examination, which was not expedient. In speaking to the motion, he argued the greater expenditure in time, money, and trouble, which the Fellowship, as at present regulated, required of those who aspired to it, and he thought it would be unjust on those who had obtained it, if the present conditions were lowered or relaxed. He referred to the high standing which the Fellowship of the English College had attained, in comparison with that of Edinburgh, owing to the manner in which the latter was trafficked for. He argued that there had constantly been a tendency on the part of the authorities to lessen the standard required of those who sought the higher diploma, with a view to increase the number of the Fellows, and he deprecated the granting of any facilities for this purpose. He referred more especially to the conditions which regulated previous study and the general culture of candidates, and not to the later examinations, which, if anything, were too hard, and appeared designed to get at what a man knew rather than at what he could do in practice. If the Council, he said, had been able to effect these changes, the by-laws notwithstanding, what would they not be able to accomplish, when the by-laws were abrogated. His wish was that they should not have the power to constantly change the conditions, but that these should stand fast. Mr. Tweedy instanced examples of recommendations of Council not being carried out, and he argued herefrom the undesirability of giving the Council the power of altering at will the requirements of so important a point as the Fellowship examination.

The PRESIDENT (somewhat contrary to the established custom of public meetings) answered Mr. Tweedy's remarks in some detail and with some warmth; he deprecated the idea that the Council would ever use any additional power they might acquire for any other purpose than to keep up and increase the dignity of the Fellows. In reference to the question of the non-carrying out of the recommendations of Council, referred to by Mr. Tweedy, he said that to have done so would have been contrary to the Charters of the College.

After a little passage of arms between some provincial Fellows and the President, on the point of the Council sometimes passing resolutions which were contrary to the Charters, Mr. Tweedy's amendment was put to the meeting. It was lost by two votes; and the Council's proposal was after a little further discussion passed.

The third proposal was that, in Section 7 of the Charter of the 7th Victoria, the amount of the fee for the Fellowship by examination be omitted, leaving such amount to be provided for by by-law. The real object was, to enable the Council to raise the fee in proportion to the greater expense entailed on the College by the more extended examination now enforced. This passed unanimously, as soon as its object was explained to the meeting.

The fourth proposal brought forward had reference to the mode of election to the Council. In past times Fellows have only been able to vote in person, and it is now proposed to give them the power of proxy voting. It is needless to say that the proposal met with a hearty reception, and was unanimously passed. The Association of Fellows put in a resolution to the effect, "that the concessions announced by the Council include all the objects for which the Association has contended."

The next proposal was, that it was undesirable that members of twenty years' standing, on election to the Fellowship, should pay a fee. This also was carried.

The sixth recommendation, to abolish the diploma of Licentiate in Midwifery, was put and carried.

The seventh and last of the Council's recommendations concerned the dental qualification; they sought for powers to increase the numbers of examiners in dental surgery, and to insist on registration as a qualification for examiners. The resolution was passed.

The PRESIDENT then stated that he would be glad to put to the meeting any other recommendations which Fellows or Members present might wish to have discussed, provided always the recommendations applied to the Charters of the College.

Mr. SWAIN, thereupon, moved "That in the opinion of this meeting, it will materially conduce to the future welfare of this College that the Fellows [and Members] should be invested with a larger share in its management; and (2) that it is desirable that no alteration in the constitution and relations of the College be effected without the consent of the Fellows [and Members] convened to discuss such alterations; (3) further, that there shall be an annual meeting of the Fellows [and Members], at which the annual report of the Council shall be submitted, received, and adopted, and that at such meeting the President for the ensuing year be elected by the majority of Fellows then present, and that the Charters be so altered as to give this resolution effect."

Mr. OLIVER PEMBERTON seconded the resolution. The words in brackets were accepted by Mr. Swain, and subsequently added to the resolution, which was unanimously carried.

Mr. Hickman proposed, "That powers by Charter be applied for to enable the College of Surgeons and of Physicians to combine, and grant a joint diploma of Doctor in Medicine, and Master in Surgery." He pointed out, how in Scotland an examination, of no greater severity than that required by the Colleges in London, gave the much coveted title of Doctor, and he believed that the granting of a similar title in London would strengthen the hands of the Colleges. Many English students now went to Scotland, who would otherwise study in London, and affiliate themselves with the English Corporations.

Mr. Hardy seconded the resolution, which was carried.

Mr. Charles Hawkins proposed a vote of thanks to the President for his services in the Chair; he paid a just tribute to the firmness, impartiality and kindness with which his arduous duties on this occasion had been discharged.

Mr. Wheelhouse seconded the motion, which was carried by acclamation.

After a few words of acknowledgment from the President, the meeting broke up.

Royal College of Surgeons.—The library of the Royal College of Surgeons will be closed on Monday next, for the purposes of the examinations.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 20, 1884:—

Cropley, Alfred, Swaton, Lincolnshire.
Evers, Chas. Jno., Kidderminster Street, Stourbridge.
Harris, Arthur Wellesley, Exmouth Street, W.C.
Jefferies, Horace, Bromsgrove.
Long, Edwin Walter, Southsea.
Morris, Rich. Jno., Thornton, Bradford.
Reeks, Jno., Elvin House, Andover.
Smith, Stephen Fras., Holloway Road, N.
Stephenson, Sydney Harry, Clerk Street, Edinburgh.
Walker, Harry Victor, Walker Terrace, Plymouth.

The following gentlemen also, on the same day, passed their Primary Professional Examination:—

Baronoff, Paronnag-Jean, Lariboisière, Paris.
Thorpe, George, of St. Bartholomew's Hospital.

Naval Medical Department.—The following appointments have been announced:—Deputy-Inspectors-General of Hospitals and Fleets—John Fisher, to Hong Kong Hospital, *vice* Gordon; Doyle M. Shaw, C.B., to Plymouth Hospital, *vice* Fisher. Surgeons—Robert H. Nicholson, to the *Albacore*, *vice* Armstrong; William Hayes, to the *Royal Adelaide*, *vice* Nicholson; J. F. Donovan, M.D., to the *Duncan*, *vice* McAdam; Charles James and Robert W. Doyne, to the *Temeraire*, recommissioned; Fleet-Surgeon George Bolster, to the *Alexandra*, recommissioned.

General Medical Council.—The President, Dr. Acland, C.B., F.R.S., entertained a party of members and friends at breakfast at Limmer's Hotel on the 25th instant. There were present:—Sir James Paget, Bart.; Sir Henry Pitman; Professor Struthers; Professor Huxley; Professor Humphry, M.D.; Sir Joseph Fayrer, C.B., K.C.S.I.; Dr. T. K. Chambers; Dr. Banks; Dr. Matthews Duncan; Dr. T. D. Acland; Rev. Dr. Haughton; Dr. Watson; Dr. Haldane; Dr. Petigrew; Dr. Aquilla Smith; Dr. Pyle; Sir Thomas D. Acland, M.P.; Mr. A. D. Acland; Mr. Griffiths; Mr. J. C. Miller; Dr. R. Macnamara; Mr. Arthur Mills; Mr. R. B. D. Acland; Mr. T. Pridgin Teale; Mr. T. Collins; Mr. J. Marshall; Mr. Edward Bradford, and Sir J. Risdon Bennett.

University of Edinburgh.—The various classes in the Medical Faculty of the University of Edinburgh were brought to a close, on Friday the 21st instant, when the different Professors presented the class medals, prizes, and certificates to the successful students. In few cases were formal addresses delivered. On Thursday, Professor Annandale, in bringing his clinical surgery class to an end, offered some remarks to the students on the desirability of their having increased opportunities of carrying on practical work, for under the present state of things, he said, a student might pass all the examinations necessary for obtaining the medical degree, and yet be very deficient in the matter of practical knowledge. With the view of remedying matters, it had been arranged that Professor Chiene's students should have a break in their course of lectures in the middle of each week, so as to enable them to devote more time to clinical work.

The Association of Surgeons Practising Dental Surgery.—This association has just instituted a Cartwright Medal, in honour of its president, Mr. Samuel Cartwright, F.R.C.S., to be awarded either biennially or triennially, for the best essay on dental surgery, scientific or otherwise, and to be competed for by registrable medical practitioners. We feel sure there are many who may feel disposed to subscribe for such a purpose, knowing the high esteem in which Mr. Cartwright is held in the profession at large. Subscriptions or donations will be received and duly acknowledged by Mr. Hamilton Craigie at 13, Savile Row, London, W. The first three trustees of the fund are Messrs. F. B. Imlach (Edinburgh), S. H. Cartwright, and J. H. Craigie.

National Hospital for the Paralysed and Epileptic.—The meeting, under the presidency of the Lord Mayor, recently held at the Mansion House, in aid of funds for rebuilding this hospital, resulted in contributions to the amount of 1,500*l*.

York Lunatic Asylum.—At the Annual Court of Governors, held on March 18th, the report showed a satisfactory state. Improvements had been, and were being effected in the ladies' galleries, and additional means of escape in case of fire were in course of construction. The sewers had all been cut off from the city drains, and ventilating shafts had been erected, the pipes from which discharged on to open gratings. The health of the patients was good; and the Commissioners, at their last visit, had reported that they found the institution in first-class condition.

Inebriety.—On the 25th ult., at a meeting of medical men held in London, a new association, entitled "The Society for the Study and Cure of Inebriety," was formed, to investigate, from a scientific standpoint, the various causes of inebriety, and to educate the professional and public mind to a knowledge of these causes, and a recognition of the physical aspect of habitual intemperance. The officers for the first year are:—President, Dr. Norman Kerr. Vice-Presidents, Sir Geo. Burrows, Bart.; Sir Spencer Wells, Bart.; Sir Geo. H. Porter, Dublin; Sir Edwin Saunders; Sir Wm. Miller, Londonderry; Dr. W. B. Carpenter, F.R.S.; Dr. Cameron, M.P.; Dr. Farquharson, M.P.; Prof. Maclagan, Edinburgh; Dr. B. W. Richardson, F.R.S.; Dr. J. S. Bristowe, F.R.S.; Prof. Macalister, Cambridge; Prof. McKendrick, Glasgow; and Dr. C. J. Hare. Treasurer, Dr. C. R. Drysdale. Secretary, Dr. J. M. Caw. Council, Dr. Alfred Carpenter, J.P.; Dr. Joseph Eastwood, J.P.; Dr. Balding, Royston; Surgeon-General Francis; Surgeon-Major Evatt; Surgeon-Major Poole; Dr. Hart Vinen; Dr. Danford Thomas; Dr. Haynes, Malvern; Dr. Wickham Barnes; Dr. Sibley Hicks, Liverpool; Dr. Hurry; Dr. Geo. Robertson; Dr. Smith, Rickmansworth; Dr. Bridgewater, Harrow; Dr. Branthwaite, Willesden; Dr. Murray Lindsay, Derby; Dr. Alex. Peddie, Edinburgh.

Charitable Bequests.—The Baroness Lionel de Rothschild has bequeathed large sums to medical and general charities, amongst the former 10,000*l*. to the London Hospital, Whitechapel-road; Evelina Hospital, Southwark, 10,000*l*.; West London Hospital, Hammersmith, 3,000*l*.; Jews Hospital, 3,000*l*.; Jewish Convalescent Home, 2,000*l*.; German Hospital, 2,000*l*.; Metropolitan Free Hospital, 2,000*l*.; Buckinghamshire Hospital, Aylesbury, 1,000*l*.; Royal Sea-Bathing Infirmary, Margate, 1,000*l*.; Royal Hospital for Incurables, Putney, 1,000*l*.; Earlswood Asylum for Idiots, 1,000*l*.; and St. George's Hospital, 500*l*. Sir William H. Poland, formerly of Blackheath, has bequeathed 50*l*. each to the Earlswood Asylum for Idiots, the Royal Hospital for Incurables, Putney, and the Royal Kent Dispensary, and nineteen guineas to the London Hospital for Diseases of the Heart, Soho-square.

Earlswood Asylum for Idiots.—This institution has been very fortunate during the past week in the amount of legacies left to it, as in addition to the above-named, Mrs. Mary Ann Ellis, late of York, has bequeated 500*l*. in aid of its funds.

THE ADULTERATION OF DAIRY PRODUCTS.—A Committee of the New York Senate has reported the results of an enquiry into the adulteration of dairy products. Of thirty samples of butter two-thirds were only remotely traceable to milk. The refuse fat of pigs and bullocks was the chief and most savoury ingredient, but often spoiled greases were used which had been deodorised by nitric and sulphuric acids. The material was also found to contain ingredients which are fatal to infants. The doctors, who were examined upon oath, declared that the consumption of this compound had a distinct bearing upon the death-rate. The Committee advises the total prohibition of the manufacture of oleomargarine. The interest in this subject is not confined to the United States, as the exports in February included nearly one million pounds of butter, and over three millions of cheese.

THE OPERATIONS ON THE RED SEA.—It must be very gratifying to the medical department of the army, to see how well the war correspondents of our daily papers speak of the medical officers marching to Suakin. It is impossible, says the *Daily News*, to praise too highly the efficiency of the medical department. There are excellent arrangements for the conveyance of large quantities of ice from the fleet to the camp for the use of the sick. The heat is described as so intense that numbers of the men fell out quite exhausted, in some cases it was necessary, but it was unpleasant to hear the medical officers, who patiently bore the heat so well, call out sharply to the laggards "Double, double! I will have you court-martialled; do you want to lie there and be assegaied?" Some men, he adds, he could see were shamming.

APPOINTMENTS.

BRAND, A. T., B.M.M.C. Aber.—Medical Officer to the Workhouse and the Driffield District, Driffield Union.

COXWELL, C. F., M.R.C.P.—Assistant Physician to the Royal Hospital for Diseases of the Chest, City Road, *vice* Gabbett, resigned.

DRUMMOND, ALEXANDER P., M.D.—Medical Officer for the parish of Prestonpans, *vice* Jas. B. Cunningham.

ELLIS, R., F.R.C.S.—Honorary Consulting Surgeon to the Sheffield and South Yorkshire Ear and Throat Hospital.

ERSKINE, J., M.A., M.B., C.M.—Assistant Surgeon to the Glasgow Hospital and Dispensary for the Diseases of the Ear.

FREER, E. L., M.R.C.S.—Honorary Surgeon to the Birmingham Orthopædic and Spinal Hospital, Birmingham.

FREER, W. C., M.R.C.S.—Consulting Surgeon to the Birmingham Orthopædic and Spinal Hospital, Birmingham.

GARMAN, W., M.B., C.M.—Resident Physician to the Queen's Hospital, Birmingham, *vice* Dr. Sanders, resigned.

GOULD, A. P., F.R.C.S., B.Sc. Lond.—Surgeon to the Royal Hospital for Diseases of the Chest, City Road, *vice* Walsham, resigned.

LOVE, J. H., M.R.C.S., L.S.A.—Medical Officer to the First District, Wolverhampton Union.

MACPHERSON, R., M.B., C.M.—Physician on the Staff of Anderson's College Dispensary, Glasgow.

OLIPHANT, E. H. L., M.B., C.M.—House Surgeon to the Glasgow Maternity Hospital, Glasgow.

RICHARDSON, H. E., L.R.C.P., L.R.C.S.—Senior House Surgeon to the Borough Hospital, Birkenhead, *vice* M. Bernstein, M.B., resigned.

RIVINGTON, WALTER, F.R.C.S.—Lecturer on Surgery at the London Hospital Medical School.

SPICER, R. H., M.R.C.S. Eng., L.S.A.—Medical Superintendent of the Infirmary, Fulham Union.

SUNDERLAND, S., M.D., L.R.C.P., M.R.C.S.—Resident Medical Officer to the Royal Hospital for Children and Women, Waterloo Bridge Road, S.E., *vice* J. F. Briscoe, M.R.C.S., resigned.

TREVES, FREDERICK, F.R.C.S.—Lecturer on Anatomy at the London Hospital Medical School.

WHITAKER, J., M.B., M.C. Edin.—Medical Officer to the Westhoughton District, Bolton Union.

WILSON, ALEX., M.R.C.S., L.R.C.P.—Junior Resident Medical Officer to the General Hospital for Sick Children, Pendlebury, Manchester.

VACANCIES.

ALSTON WITT GARRIGILL PARISH.—Medical Officer for the Second District, in succession to Dr. A. J. Pickworth, resigned. Area, 24,000 acres. Population, 2,333. Salary, £8 per annum.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House Surgeon. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Candidates must be members of one of the Royal Colleges of Surgeons of Great Britain and Ireland, and Licentiates of the Royal College of Physicians of London, or of the Apothecaries' Company in London, duly registered under the Medical Act, unmarried, and under 30 years of age. Diplomas, testimonials, and copy of registration to be forwarded to the Secretary, before April 4th. The election will take place on Friday, May 2nd.

DEPWADE UNION.—Medical Officer for the Second District, in succession to Mr. J. L. Currie, resigned. Area, 5,489 acres. Population, 1,092. Salary, £39 per annum.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary, £100 per annum, with furnished house, &c. Candidates' names must appear on the Medical Register, as being possessed of Medical and Surgical qualifications, and they must produce evidence of good moral character. Private practice prohibited. Candidates conversant with the Welsh language preferred. Applications, with testimonials, to be sent to the Secretary, on or before April 15th. The election will take place on April 30th.

GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

JARROW PROVIDENT DISPENSARY.—Qualified Practitioner. (*For particulars see Advertisement.*)

MORPETH DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with furnished apartments, coals, and gas. Candidates must be duly qualified, and unmarried. Applications and testimonials to be sent to Mr. D. W. Greenwood, Morpeth, on or before April 5th.

NEWPORT PAGNELL UNION.—Medical Officer for the Fifth District, in succession to Mr. Deyns, resigned. Area, 16,286 acres. Population, 5,749. Salary, £65 per annum.

ORTHOPÆDIC AND SPINAL HOSPITAL, BIRMINGHAM.—Honorary Assistant Surgeon. (*For particulars see Advertisement.*)

SPILSBY UNION.—Medical Officer for the Strickney District, in succession to Mr. Grimoldsby, resigned. Area, 11,518 acres. Population, 2,112. Salary, £46 per annum.

STOURBRIDGE UNION.—Medical Officer for the Kingswinsford District, in succession to Mr. G. Ashmead, resigned. Salary, £50 per annum.

WEST LONDON HOSPITAL, HAMMERSMITH.—Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and not practising Midwifery or Pharmacy. They must attend, if practicable, at the meeting of the Medical Council, on Tuesday, 1st April, at 3·30 o'clock p.m. Applications and testimonials, to be sent to the Secretary, on or before March 31st. Applications are also invited, in the event of an Assistant Surgeon being elected, for an Assistant Surgeon.

DEATHS.

BROWN, ROBERT GIBSON, M.R.C.S., L.S.A., at 144, Brixton-road, on March 21st, aged 52.

DAVIS, JOHN HALL, M.D., F.R.C.P., at 41, Boundary Road, St. John's Wood, on March 19.

HICKMAN, ARTHUR, M.D., L.R.C.S., L.R.C.P., Surgeon, Army Medical Department, at Jhansi, Central India, on February 19th, aged 30.

NICHOLSON, JOHN, M.D., formerly of Lincoln, at 40, Grove Road, St. John's Wood, on March 21st, in his 70th year.

TEEVAN, JOHN, M.R.C.S., of Woodside Court, near Croydon, at North End House, Croydon, on March 22nd, in his 83rd year.

THOMSON, ALLEN, M.D., D.C.L., LL.D., F.R.S., formerly Professor of Anatomy, in the University of Glasgow, on March 21st.

NOTES, QUERIES, AND REPLIES.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—I wish much to be informed if there is really any inconvenience in uniting in the same potion cherry laurel water and an alkaline bicarbonate. It appears to me that the hydrocyanic acid of the cherry laurel water has too weak affinities for it to be able to dislocate the carbonic acid of the bicarbonate, and form a cyanide of potassium or sodium. I ask the question, because, here, the physicians in general consider such admixture dangerous. I saw lately in a French work a caution against the conjoint administration of corrosive sublimate and cherry laurel water.

Has the electrical current been tried in London in *Lymph Scrotum*, or other manifestations of Elephantiasis Arabum, now proved to be dependent on *Filariæ?* Is Wucherer, of Bahia, recognised as the originator of this practice?

Not only was the alcoholic treatment of small-pox successfully practised in Scotland in the eighteenth century, as we learn from the pages of "Humphry Clinker," but measles were in Brazil treated popularly with rum and the dry excrement of the dog. This nauseous ingredient certainly owed its virtues to the presence of ammonia in some combination.

I have employed in uncomplicated asthma with surprising success the medicinal ($\frac{1}{10}$) solution of nitro-glycerine, in doses of one or one and a half drops every two or three hours in half an ounce of distilled water. When a hyperæmic state of the lung exists, I give tartar emetic for 24 hours previously to giving the nitro-glycerine. I lately had a case of Chorea Sancti Viti, in which the bromide of camphor (twelve grains per diem) cured the patient.

Is picrotoxin ($\frac{1}{10}$ of a grain, night and morning) employed in England against the night-sweats of the phthisical? I strongly recommend to practitioners in India, where the forms of fever seem to be identical with those of Brazil, the free use of the chlorhydrate of pereirina, extracted from the bark of the *Geissospermum Vellosii*, and to be obtained in the drug-stores of Rio de Janeiro. The dose may be from 12 to 24 grains in the 24 hours. It is intensely bitter, and is best taken in the wafer capsules, now in use for quinine and other nauseous or bitter drugs.

The efficacy of pereirina is extraordinary, and I have often seen it succeed after the failure of quinine. Its price is higher than that of sulphate of quinine.

Has *Hyoscyamine* come into general use in Europe? I find it of the greatest possible benefit in the nervous forms of typhoid fever.

I hope to receive authoritative information as to the query with which I commenced this incoherent communication.

RICHARD GUMBLETON DAUNT, M.D. Edin.

Campinas, San Paulo, Brazil.
February 27th, 1884.

COMMUNICATIONS RECEIVED—

Mr. J. HUTCHINSON, F.R.S., London; Dr. C. HANDFIELD-JONES F.R.S., London; Mr. WILLIAM CLARK, Glasgow; Dr. DAUNT, Brazil; Mr. J. P. MENDOZA, London; THE SECRETARY, NATIONAL LIFE ASSURANCE SOCIETY, London; Mr. J. L. CLIFFORD-SMITH, London; Mr. NOBLE SMITH, London; Dr. PAUL BOERMER, Berlin; Dr. J. W. LANGMORE, London; Dr. DONALD MACALISTER, Cambridge; Mr. J. T. W. BACOT, Seaton, Devon; Dr. CHAMPNEYS, London; Dr. WM. EWART, London; Dr. SCRIVEN, Driffield; Messrs. C. BARKER & SONS, London; Mr. LE FEVRE, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Dr. G. COATES, London; Dr. DAVID SYME, London; Dr. HERMAN, London; Dr. HERBERT COLLIER, Gorleston; Dr. TYRRELL, London; Dr. ISAMBARD OWEN, London; Dr. W. DOMETT STONE, London; THE SECRETARY, SOCIETY OF ARTS, London; Dr. NORMAN KERR, London; Dr. J. K. FOWLER, London; Mr. H. CRAIGIE, London; Messrs. MACMILLAN & Co., London; THE COMMITTEE OF THE GERMAN MEDICAL CONGRESS, Berlin; Dr. LEWIS, Southampton; Dr. TIBARD, London; Dr. CURNOW, London; Dr. A. T THOMSON, Glasgow; Mr. WYNTER BLYTH, London; Mr. J. W. VICKERS, London; Dr. J. W. MOORE, Dublin; Dr. WHITLING, Croydon; Dr. CARPENTER, Croydon; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY, OBSTETRICAL SOCIETY OF LONDON; Mr. LIMMER, London; Mr. THOS. STONE, Wimbledon; Mr. W. J. NIXON, London; Dr. WILLOUGHBY, London; Dr. W. SQUIRE, London; THE SECRETARY, ROYAL INSTITUTION, London; Dr. R. EUSTACE, Warrenpoint, Co. Down, Ireland; THE SECRETARY, PATHOLOGICAL SOCIETY OF LONDON; Mr. L. M. GRIFFITHS, Bristol; THE SECRETARY, INTERNATIONAL HEALTH EXHIBITION, London; THE SECRETARY, ROYAL INFIRMARY, BRISTOL.

BOOKS RECEIVED—

Report on the London Water Supply for February, 1884—Bright's Disease of the Kidneys, by H. B. Millard, M.D., A.M.—Prostitution, by Yves Guyot—Annual Report, &c., of the General Infirmary at Hull for 1883—On the Formation of Uric Acid in Animals, by P. W. Latham, M.A., M.D.—Observations on the Medical Act Amendment Bill, 1884—Opinions of the Press on the London Municipal Government—On Some Curious Properties of Coal Gas, by Thomas Fletcher, F.C.S.—Injuries and Diseases of the Jaws, by Christopher Heath, F.R.C.S.—Post-Nasal Catarrh, by Edward Woakes, M.D.—The Influence of Heredity and Contagion on the Propagation of Tuberculosis, &c., by Herr A. Lydtin, &c.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt fur Gynakologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—The Canadian Lancet—Sanatary Journal, Ottawa—The Medical World—The Canadian Practitioner—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—The Planet—The Dublin Journal of Medical Science—The American Journal of Obstetrics—Croydon Chronicle and East Surrey Advertiser—Revue d'Hygiène—The Journal of the Vigilance Association—Garden Work—Bulletins et Mémoirs.

APPOINTMENTS FOR THE WEEK.

March 29. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Capt. Abney, "Photographic Action."

31. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. Norman Chevers, C.I.E., will read a Paper on "Febris Exanthematosa Orientalis, otherwise Beriberi Fever."

April 1. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 p.m.—The following Papers will be read:—Mr. Lane, "Spine from a Case of Spastic Contraction of Sterno-Mastoid" (card); Mr. Davies Colley, Juvenile Osteo-Malacia;" Mr. Sutton, "Bone Disease in Animals;" Dr. Norman Moore, "Ulceration of Small Intestine, and Disease of Skull, probably syhilitic;" Mr. Roger Williams, "Acne Keloid;" Dr. Hale White, "True Cystic Disease of Liver with Yellow Fever and Tuberculosis;" Dr. West, "Three Cases of Malignant Disease of the Bronchial Glands" (card), "Obstruction of one Coronary Artery;" Dr. Turner, "Cirrhosis of Liver," "Free Coagula in Pulmonary Vein" (card), "Extreme Obstruction of Coronary Artery" (card); Dr. Taylor, "Chondro Epitrochlearis Muscle on both sides" (living specimen).

ROYAL INSTITUTION, 3 p.m.—Prof. Gamgee, "Animal Heat."

2. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

OBSTETRICAL SOCIETY, 8 p.m.—Specimens will be shown by Dr. Godson and others. The following Papers will be read:—Mr. Alban Doran, "The Relation of Prolapse of the Vagina to Hernia," illustrated by two pedigrees; Dr. Kilner, "Upon the Benefits derived from the Induced Current during Parturition;" Dr. Arthur Mitchell, "Strong Mental Emotion affecting Pregnant Women as a Cause of Idiocy in the Offspring."

ROYAL COLLEGE OF PHYSICIANS, 5 p.m.—Dr. James Andrew will deliver his Second Lumleian Lecture "On the Ætiology of Phthisis."

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m.—Prof. Tyndall, "The Older Electricity."

4. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m.—Dr. James Andrew will deliver his Third Lumleian Lecture "On the Ætiology of Phthisis."

ROYAL INSTITUTION, 9 p.m.—Prof. J. G. Bonney, "The Building of the Alps."

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CROONIAN LECTURES ON EVOLUTION AND DISSOLUTION OF THE NERVOUS SYSTEM.

Delivered at the Royal College of Physicians,

By J. HUGHLINGS JACKSON, M.D., F.R.C.P., F.R.S

Lecture II.—[Abstract.]

The hierarchy of nervous centres of the cerebral system, which was supposed to accord with the doctrine of evolution, was stated. The lowest motor centres are the anterior horns of the spinal cord, and also the homologous nuclei for motor cranial nerves higher up. The middle motor centres are the convolutions making up Ferrier's motor region. The highest motor centres are convolutions in front of the so-called motor region. It it needless to give the scheme of sensory centres. The main conclusions are: (1) that the highest (chiefly) sensory centres—parts behind Ferrier's sensory region—and also the highest (chiefly) motor centres—parts in front of the so-called motor regions—make up the physical basis of our highest consciousness; and (2) that just as consciousness represents, or is, the whole person psychical, so its anatomical basis (highest centres) represents the whole person physical—represents impressions and movements of all parts of the body.

The lecturer next endeavoured to illustrate the duplex symptomatology of certain cases of insanity—post-epileptic states. He wished to show that after epileptic fits, of different degrees of severity, there were different "depths" of dissolution, and, consequently, different "shallows" of evolution remaining; and at the same time to account for the increased excitability of the nervous arrangements on the different lower levels of evolution remaining.

It is well known that some epileptics, after their fits, are maniacal. The condition is called "epileptic mania," but it should be called "epileptic unconsciousness with mania." There is a negative, and there is a positive element. "Since the fit is over, and as the patient remains unconscious, there is, of necessity, on the physical side, loss of function of some of the highest arrangements of his highest centres—say, of the highest two layers. The co-existing mania is, I contend, the outcome of greatly raised activity of the next lower level of evolution remaining, the third layer, which is normal, except for hyper-physiological activity. But now comes the question, why is an unconscious man furiously active? Why, on the loss of function of the highest two layers, is the next, the third, layer in the state of hyper-physiological activity spoken of?"

In order to consider this question methodically, the prior epileptic paroxysm was considered. The conclusion come to, was that an epileptic paroxysm was owing to high instability of but a small part of the

highest centres—there was a physiological fulminate—by the rapidity of its discharge, it produced secondary discharges of healthy collateral nervous arrangements of the same general rank; thus there was a great multiplication of energy-liberations towards the periphery producing severe universal convulsion.

"The view I take is that the sudden and excessive discharge in an epileptic paroxysm produces exhaustion of nerve tracts, which had been travelled by excessive currents in that paroxysm. . . . . This is illustrated by a case of epileptiform convulsion of the left leg, followed by temporary paralysis of that limb. It will be agreed upon that in such a case there is disease of some part of the cortex in the right middle region of the brain (middle motor centres). And, since the event outside is excessive, it is obvious that the corresponding event inside is excessive. Further, in order that the central discharge, or 'explosion' inside, may 'get at' the muscles outside, the nerve currents developed must travel a particular route—passing down the internal capsule into the opposite lateral column of the cord, they will next overcome and discharge certain anterior horns (some lowest centres), and ultimately by peripheral nerves get at the muscles; there is excessive activity from cortex discharging to muscles convulsed. The explanation suggested (Todd and Alexander Robertson's hypothesis), of the temporary post-epileptiform paralysis, is that, after the excessive 'exercise' of central nerve-fibres during the epileptiform seizure, they remain for a time exhausted.

"Returning to the highest centres, we say that after an epileptic fit there is, according to its degree of severity, exhaustion of more or fewer 'layers' of those highest centres. As implied, I believe there to be also some exhaustion of middle centres, and of fibres in the lateral columns of the cord, and sometimes also of some of the lowest centres. (I neglect the implication of the lower centres.) Now, manifestly, considering the case of epileptic mania, exhaustion of part of the highest centres being a purely negative state, cannot account for the hyper-positive state, mania; the maniacal actions are supposed to be the outcome of the activity on the lower level of evolution remaining—of nervous arrangements which, except for hyper-physiological activity, are normal. Supposing the epileptic discharge to be strong enough to leave exhaustion of two layers of the highest centres—second depth of dissolution—then the maniacal actions would be the outcome of activity on the next (the third) layer of those centres. To show more particularly what is meant, we must speak of three degrees of exhaustion, three increasing depths of dissolution, which are affected by epileptic discharges of different degrees of severity, taking count of the three correspondingly decreasing levels of evolution. First depth.—There is defect of consciousness significant of dissolution of the topmost layer along with the rise of a certain kind of ideation significant of increased activity of the second layer. The double condition is roughly analogous to ordinary sleep with dreaming. Second depth.—There is loss of consciousness significant of dissolution of topmost and second layers, along with actions of more or less elaborateness (one example of which is post-epileptic unconsciousness with mania), significant of increased activity of the third layer. The double condition is analogous to sleep with somnambulism. Third depth.—There is coma, significant of dissolution of first, second, and third layers, with which, seemingly, there is persistence only of 'vital' operations, such as respiration and circulation, significant of retention of activity of the fourth layer. This double condition is analogous to deep slumber, to so-called dreamless sleep. It will be seen that the opinion expressed is that in each case the lower level of evolution remaining—the *then* highest level—is of some part of the highest centres. One thing to be especially borne in mind is, that in each of these degrees there is a negative, and that there is a positive, and often an hyper-positive element. Negatively, there are increasing degrees from defect, through loss of consciousness, to coma, signifying three increasing depths of dissolution; positively, there are decreasing degrees from elaborate ideation through actions to mere vital operations, signifying three increasingly shallow levels of evolution remaining.

After speaking of the first depth, the second was spoken of. "There has been a stronger discharge, which has effected deeper exhaustion—has exhausted, we are supposing, two layers. Now, there is no ideation, that is, none is remembered on recovery; but there are actions of different degrees of elaborateness from such highly special and complex actions as as those of a fisherman, when unconscious after an epileptic fit, pulling out a line from a reel, untying a knot, taking a hook out of his pocket, affixing it, and baiting it (doing all this pantomimically), down to such actions, if they deserve that name, as sprawling on the floor.

"The fisherman's case was a second depth of dissolution, in which we say, speaking loosely, that there was exhaustion of the highest two layers of the patient's highest centres, answering to his loss of consciousness. So much for the negative element. We recognise, too as the positive element, a lower level of evolution remaining, third layer, from activity of which he acted, as if he were on the river's bank. No explanation is adequate which does not account for the two diametrically opposite elements, not only for his ceasing to do this, but also for his beginning to do that. Putting it in another way, the patient's post-epileptic state differed from his previous normal state by a minus and also by a plus: there were two different persons, although in one skin; or, as the popular phrase is, the post-epileptic patient 'was not himself.' There was too little of him in one way, and too much of him in another way.

"The doctrine of evolution implies the passage from the most organised to the least organised, or, in other terms, from the most general to the most special. Roughly, we say that there is a gradual 'adding on' of the more and more special. But this 'adding on' is at the same time a 'keeping down.' The higher nervous arrangements evolved out of the lower keep down those lower, just as a government evolved out of a nation controls as well as directs that nation. If this be the process of evolution, then the reverse process of dissolution is not only 'a taking off' of the higher, but is at the very same time a 'letting go' of the lower. If the governing body of this country were destroyed suddenly, we should have two causes for lamentation:—(1) The loss of services of eminent men; and (2) the anarchy of the now uncontrolled people. The loss of the governing body answers to the dissolution in our patient (the exhaustion of the two highest layers of his highest centres); the anarchy answers to the no longer controlled activity of the next lower level of evolution (third layer).

"Another way of stating the general principle (which I call Anstie's principle), is that the over-activity of the lower level of evolution remaining *is not caused*, but *is permitted*; just as on cutting across the pneumogastric, the heart is not caused to go faster, but is permitted to go faster. In other words, the lower level of evolution is not 'goaded into activity,' but is 'let go.' So we see that exhaustion of the highest nervous arrangements—two layers—answers to negative affection of consciousness, and this exhaustion being at the same time a removal of control from the next lower level of evolution — third layer — it springs into activity.

"It comes to be a question of importance, and of more

practical importance than, at first glance, appears, whether or not in the second depth there is any mental state, in spite of the expression '*loss* of consciousness.' That there is activity of some nervous arrangements of the highest centres, we are supposing of the third layer, is, I submit, quite certain. The question is, do states of consciousness attend that activity or not?

"There will be two views on this matter. Let me return to the case of the fisherman, who pantomimically pulled out a line from the reel, &c., when unconscious after an epileptic attack. Had that man, who, on recovery, remembered nothing of his doings, any states of consciousness attending the nervous activity which produced his elaborate action? One view would be that the fact that the patient remembered nothing was proof that there were no mental states. Another view would be that the very elaborateness of the operation implied some co-existing states of consciousness, that, at the time, the man had ideas of the reel, line, hook, and of the bait. We must carry each view to its logical conclusion. Those who take the first view must say that the patient was a mere machine—a mere automaton. Otherwise stated, this opinion is that elaborate and universal movements may occur in a patient who has no trace of consciousness. On the second view it would be admitted that the man was a machine, an imperfect automaton, having lost the highest parts of his nervous machinery, but it would be said, too, that some degree of consciousness attended activities of the nervous arrangements on the lower level of evolution left. Each of these two views has consequences, as we shall soon see.

"We pass on to the third depth of dissolution. Supposing a severest discharge; when it is over the patient is comatose, lies motionless on his back, has seemingly no movements excepting 'vital' movements, such as the respiratory and circulatory.

"Having so far almost neglected the distinction between mental and physical states, we must now have special regard to it, the reason for which will soon appear. The current explanation of the post-epileptic comatose patient's immobility is that he does not move because he is unconcious. My belief is that there is paralysis. The objection which has been made to this statement is that, as a mere matter of fact, there is no paralysis.

"Everybody agrees that the post-epileptic comatose patient does not move *when* unconscious; I dispute that he does not move *because* he is unconscious. No man was ever unconscious without there being at the same time some physical change in at least the highest arrangements of his highest centres. I contend that it is more realistic to put his immobility down to this physical change—to attribute the physical to the physical—than to the correlative negative mental state. In other words, I give a realistic explanation in place of a metaphysical one. I put this question, 'If loss of consciousness were all, why should not the patient move as well as ever?' This question will not seem in the least degree strange to the majority of medical men, for they positively assert that an epileptic maniac who manifests universal and exceedingly elaborate movements has *no* consciousness.

"An objection may arise: it may be said, 'Your contention, that after a severest discharge the universal immobility is paralysis, is discrepant with your explanation of the second degree of post-epileptic unconsciousness and mania. If you say that exhaustion of three layers is causative of some universal paralysis in post-epileptic coma, you must admit that in the post-epileptic mania exhaustion of two layers also entails considerable paralysis. You are bound to say that the epileptic maniac has some universal paralysis, and that at the very same time he is in a state of universal activity.' My contention is, that there is some degree of paralysis all over the body, or, more precisely, loss of some movements of all parts, and that at the very same time there is persistence and over-development of some other movements of all parts, To show that this is not an extravagance, I would point out that local loss of movements of the whole of a part, with persistence of some other movements of the whole of that part, is an exceedingly common thing. Take the case of partial paralysis of an arm in hemiplegia. To say that the arm is 'weak' is misleading. The patient has lost some movements of the whole of the limb, and yet retains some other movements of the whole of the limb. Often enough there is loss of some of the most 'delicate' movements, with, at the same time, the retention of many 'coarser' movements.

"I contend that there is no difficulty whatever in conceiving, whatever difficulty there may be in believing, that the exhaustion of the highest layer, in the first depth, which defect of consciousness implies, is causative of a slight degree of paralysis 'spread out thin' all over the body ('weakness'); that exhaustion of two layers, which loss of consciousness, second depth, implies, is paralysis spread out more 'thickly' all over the body, notwithstanding that, from the raised activity of the third layer, other movements of all parts of the body, may be in great excess; and that the immobility in post-epileptic coma, third depth, is paralysis spread more thickly still.

"Since I say (1) that the highest centres are sensori-motor; (2) that negative affections of consciousness imply negative conditions of parts of the highest centres; and (3) that there is at least some defect of consciousness in every case of insanity, I ought to hold the opinion that, in every case of insanity, there is some degree, however slight, of universal or widely distributed paralysis—sensory, or motor, or both. So I do. That I could not demonstrate its existence in many cases, I admit. I should expect to find the least degree of negative affection of consciousness in cases of insanity where the accompanying positive condition was very elaborate—that is, on the physical side, when the dissolution was very shallow, and the level of evolution remaining was very high. In cases of dementia, I suppose the patient's "lethargy" would be put down to his negative mental state,—a metaphysical explanation. I should calll dementia the chronic analogue of what acutely is post-epileptic coma, and attribute the lethargy to the negative condition of more or less of his highest centres *implied by* his negative mental state, and call the lethargy paralysis. Paralysis is indirectly admitted in some cases in the assertion that there is loss of facial expression, difficulty of articulation, tremor of the limbs (indirect evidence of some paralysis), and shambling gait, when it may be denied directly. Taking but one of these symptoms, surely loss of expression implies either loss of the most special or 'delicate' facial movements, or continuous development of them (rigidity), or both. There is no abstraction 'expression' to be lost. What we know of any healthy person's conduct is from his movements. Such symptoms as I have enumerated are just those I should expect from negative lesions of the highest motor centres.

"Now for a serious qualification. This difficulty, taking the case of the fisherman, has to be met. There was so-called loss of consciousness, implying a deep dissolution, and yet the patient's very elaborate doings implied a very high level of evolution remaining. I hold that in post-epileptic states there are local dissolutions, meaning that the post-epileptic exhaustion is in, or preponderates in, one cerebral hemisphere. Thus, whilst there is a lower level of evolution in the highest centres of one half of the brain,

there is a perfect or very high level of those of the opposite half. Hence, the seeming discrepancy is explained."

The lecturer thought that cases of post-epileptic actions might be arranged in two broad divisions: (1) those in which the actions were relevant to some former surroundings, and (2) those in which they were relevant to present surroundings. This was a mere hypothesis. The comparative coherence of the conduct, so to call it, of post-epileptic maniacs had been strongly insisted on by Faloret, and this was, the lecturer supposed, explicable on the hypothesis that that they were local dissolutions. In many cases of uniform dissolution, the mentation was very incoherent; in many dreams there was a melange of the past and present (or very recent, rather). But both in cases of local and uniform dissolution there were "interfering conditions," which rendered their study exceedingly difficult. He then considered the several factors in cases of insanity, using the term insanity in the wide sense of departures from normal states of mind: (1) Different depths of both uniform and local dissolution of the highest centres; different depths of the latter he had just illustrated. (2) Different rates with which dissolution was effected, control removed; the more rapidly control was removed, the greater was, he thought, the activity on the lower level of evolution remaining. (3) Differences in the persons who had undergone dissolution, young or old, educated or uneducated, &c. (4) The influence of external circumstances, or local bodily states on the person, his lower level of evolution, who had undergone dissolution; commonplace examples were elaborate dreams developed by simple peripheral excitations.

RACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society of London.

(*Continued from page* 316.)

Febris Exanthematosa Orientalis, otherwise Beriberi Fever.[34]

I AM led by a careful enquiry into the ætiology of beriberi, and especially by a review of the history of the epidemic which visited Bengal and Mauritius in 1877 and 1878, to regard this malady as a specific fever, *sui generis;* and, consequently, to be of opinion that physicians will remove it from its present anomalous position in our nomenclature of disease, as the last and least defined in the roll of general diseases, and place it next to scarlatina, with which fever it has certain marked features in common.

We are told[35] that the word beriberi is derived from the Hindustani name of a sheep (*b'here*), from a fanciful notion that persons affected with the disease walk like a peculiar species of that animal, *i.e.*, with a kind of jerking motion; but the name by which it is known to the Gentoos of the coast, *Ooboo-waioo*, simply means rheumatism combined with dropsical swelling.[36] The writer adds, "This disease, though endemic in many situations, frequently also appears as an epidemic after the setting in of the rains, or from July to the close of the year, when fevers, dysenteric complaints and cholera also break out, to a greater or less extent annually.

Morehead justly objects to the unscientific vernacular designation of this malady; but the name beriberi has been so long accepted that it would now be useless to attempt to abandon it entirely, although our present knowledge of the ætiology of the disease renders it needful that we should modify it—as by calling it "beriberi fever."

The form of acute general anasarca, generally recognised under the name of beriberi, occurs as an endemic and as an epidemic. Its principal endemic habitats are Ceylon and portions of the Madras Presidency. According to Hamilton, the limits of the Indian *endemic* were the Malabar coast and that tract of country which extends from Madras to Ganjam, being confined to these parts, and extending no farther inland than forty miles. Later observation has considerably extended this endemic area, the limits of which it may have transgressed in recent times. Its ascertained *epidemic* range is exceedingly wide; its field occupying a very large expanse of the globe's surface—the South Pacific Ocean and its islands; the southern part of Australia and Mauritius in the southern hemisphere, and, in the northern hemisphere, as high as the Kasia hills, above the parallel of 25°. If we are to regard the epidemic which invaded Lower Bengal, in 1877, as true beriberi, as I think we must, the influence of this malady, when it becomes epidemic, may be expected to extend, in a plain country, as far as the sea breeze does, *i.e.*, about 250 miles inland—Calcutta standing 110 miles, and Shillong some 140 miles from the sea. Both places suffered in the recent epidemic.

Beriberi is most common among natives, and it attacks half-castes. European soldiers have often suffered; their officers occasionally, but far less frequently. It spares neither age nor sex.

Hitherto the scientific definition of beriberi has always appeared to be one of the most obscure problems in ætiology. Probably feeling this, the College of Physicians have, in their nomenclature, placed beriberi next to general dropsy, but have refrained from giving it any definition. Although its manifestations are numerous and complex, I think that, on carefully studying its phenomena, we cannot fail to arrive at the conclusion that true acute beriberi is not, as some have thought, a group of diseases, but a malady quite distinct from all others—a fever of varying type, but characterised by a very marked individuality. According to their opportunities of observing it, and to the type of disease with which each authority has been most familiar, authors have assigned various causes to this malady. Thus (1) Ranking held that it is renal anasarca; (2) Malcolmson viewed it mainly in its paraplegic and scorbutic aspects; (3) Morehead considered it to be an expression of scorbutic cachexia; while (4) others have regarded it as an outcome of paludal cachexia. Each of the leading authorities on the subject adduced very cogent facts in support of his opinion. I think, however, that an analysis of the characters of the epidemic disease which first appeared in Calcutta in 1877, and Mauritius in 1878, enables us to declare (5) that *acute beriberi is an exanthematous fever, hitherto best known by its sequelæ—acute general anasarca, and frequently but not invariably morbus Brightii and paraplegia.*

I shall review these five doctrines *seriatim*, save that I shall give precedence to the consideration of the fifth.

Fifth.—Acute Beriberi an Exanthematous Fever characterised by general dropsy, effusions into the serous sacs, and other grave sequelæ.

I have mentioned above that, in 1877, a disease having all the characters of acute beriberi made its appearance in Calcutta, and became rather extensively

[34] Read before the Medical Society of London, March 31st, 1884.
[35] "Madras Topographical Reports," Russel Condah, p. 89.
[36] Those who may be desirous to trace out fully the etymology of beriberi will find ample data in Fayrer's article, "Quain's Dict.," p. 104, and in vol. ii., O. S. of the *India Journal of Medical Science*, p. 343.

prevalent. No European is proved to have been affected. Eurasians and Armenians suffered. A very full account of this outbreak will be found in the *Indian Medical Gazette, passim*, for 1880, as contributed by various good observers, who were not at all unanimous regarding the nature and origin of the malady. None but those practically well acquainted with beriberi in its homes can judge with absolute certainty, whether we ought to agree with one or other of the only two Calcutta men who had seen beriberi. Dr. Coates, who had observed what was called beriberi in the Madras regiment at Cuttack, and who holds that the new Calcutta disease is not identical with beriberi, and Baboo Rammay Roy, who had recently treated some 500 cases of veritable beriberi in the Madras district of Coimbatore, and had, since his return, seen some 150 cases of the new disease in and around Calcutta, who asserted that "they were identically the same malady." My own conviction, arrived at after a very full survey of the whole question, clearly is that the Calcutta disease was true acute beriberi.

In early accounts of beriberi we frequently meet with such entries as these: "The disease commenced with fever, followed by swelling and numbness of the feet and legs;" "Had fever last night, skin dry, pulse excited." In the following quotation the italics are mine: "In detailing cases of beriberi, the cause supposed or probable should be first given, stating whether it was preceded by, or followed any epidemic visitation of disease in the district or neighbourhood, such as cholera, *fever* or dysentery; and also distinguishing particularly the *acute form of beriberi, attended with increased vascular excitement*, and coming on as a primary affection, from the chronic form which is frequently the sequela of rheumatism, *fevers*, &c." [37]

"Beriberi occurs both in an acute and chronic form; the acute form being usually attended by fever of an intermittent type, and of four or five days' duration, whereas the chronic form is more frequently the sequela of rheumatism or of fever, either of the intermittent or remittent form." [38]

In an abstract given by Malcolmson of nineteen cases of men, admitted with various diseases, who subsequently became the subjects of beriberi, five were admitted for "fever," and the eleven who were admitted for the four diseases—phlogosis, two; rheumatism, five; diarrhœa, one; anasarca, three—probably had commencing beriberi when they went into hospital. Malcolmson, and many who followed him, threw over this disease a darkness which has never yet been dispelled, by commencing their description of its symptoms at the beginning of the end. I cite Malcolmson's words (the italics are mine), "It (beriberi) usually *commences* gradually with a feeling of numbness, sense of weight and slight weakness and stiffness below the middle of the thighs." We might as well attempt to describe splenic cachexia by saying, "It usually *commences* with a pain and sense of weight in the left side." They fell into the great error of not enquiring strictly into the preceding fever. Doubtless their patients, not being properly questioned, did not enlighten them on this material point. Natives pay little attention to a single attack of fever, but usually seek relief when œdema and still graver symptoms occur. The severity of fever varies greatly in the exanthemata, and so does the amount and character of the exanthem, especially in the dark races. Judging by the light which the recent outbreaks in Bengal and Mauritius afford us, I am confident that Malcolmson, and others, erred in overlooking the fever and its exanthem, and by regarding the complications as the disease. In the epidemic which made its appearance in Calcutta in 1877, the initial fever and its exanthem were frequently overlooked, but it was generally noticed that the attack was ushered in by febrile symptoms of a few days' duration. It must be borne in mind that a malarious taint is to be suspected in the constitution of every Calcutta native; but it is clear that this fever was not the common paludal fever of Bengal. Many observers stated that there was no periodicity. Elsewhere, we read of evening exacerbations and morning remissions. In February, 1880, Dr. McLeod said that "fever sometimes preceded and sometimes succeeded the œdema, and sometimes did not occur at all. It seemed to be of quotidian type when present, and well-marked rigors ushered in the attacks."

Being a general practitioner, Dr. Chambers had an advantage over nearly all of those who observed the disease, in seeing cases from the commencement, while they, being consultants, were doubtless, in most instances, called in late. Indeed, Dr. Harvey remarked that, although he had seen many cases, he had not been able to have any one case under observation throughout. Dr. Chambers is the only reporter who says much of the cerebral conditions. He noticed marked head symptoms. He speaks of "intense frontal headache," and insomnia, and says that "when the disease is ushered in with great severity, there is a tendency to stupor and wandering delirium, generally confined to one particular subject. The patient is, however, rarely insensible, but is always roused up from the stupor and delirium by being loudly spoken to; sometimes furious delirium and violence occur."

Frequent mention is made in the reports to an exanthem. Thus, in a girl expressly stated to have escaped fever, Tumeez Khan says, "The limb swellings were stated to have been preceded by intolerable itching of the whole body, and the subsequent appearance of a rash all over it, and which, from the very vague description given, I think to have been of an urticarious kind." In 1879, Dr. Juggobuudhoo Bose had two cases in which "a redness of the skin, like scarlatina, preceded the swelling." In February, 1880, Dr. McLeod noticed, from large experience, that "the skin had been carefully examined, and in only one case was any abnormality found. This was a claret-coloured discolouration of the legs, disappearing on pressure." But he also stated, doubtless from the patients' own imperfect accounts of what had occurred to them, that the œdema "was preceded by burning and painful sensations, which seemed to be confined to the skin and soft parts." In a case of Dr. Nicholson's "there were purpuric spots." In March, 1880, Dr. Chambers, in describing the leading symptoms, mentions a "sensation of burning heat in the body, as though the skin were rubbed over with ground chillies, preceded or followed by repeated sensations of chill; a scarlet efflorescence from the beginning of the disease, especially confined to the face, neck, upper part of the thorax, and the extremities, or petechial spots with circumscribed measly eruptions on face or trunk, or large purpural or mulberry patches. In infants a marbly, mottled, purplish or red tinge of the skin, especially of the extremities, neck and cheeks; a flushed puffy countenance, with suffused glistening eyes." These observations become very noteworthy when we are told by Dr. Lovell that, in 1878-79, the Mauritius epidemic of "acute anæmic dropsy," as it was termed, was ushered in by "slight fever, and in most cases by a rubeolar skin eruption, disappearing under pressure, sometimes ending in petechiæ or phlyctænæ and desquamation." In Calcutta, the fever was succeeded by general anasarca. The œdema was by some described as being "hard and brawny." It usually commenced in the lower limbs, sometimes in the hands, spreading more or less to the trunk and head. "Œdema," said Dr. McLeod, "was doubtless the most constant

[37] Editorial remarks, *Madras Medical Journal*, p. 472, vol. i. for 1839

[38] "Madras Medical Topographical Report," Northern Division, p. 90.

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symptom." "The œdema," said Dr. Harvey, "is general, not only throughout the connective tissue of the muscles, but the connective tissue of solid and visceral organs, in every cavity of the body, is bathed in fluid."

Dr. Harvey noticed that "in two cases there was an appearance of paralysis of the lower limbs, as if from effusion of serum into the spinal canal, and in a good many more there has been great difficulty in walking, apparently not due to paralysis, but to the local condition of the limbs."

Tumeez Khan's expression, that, in one of his cases, there was "inability of locomotion owing to excessive tension and stiffness of the lower extremities," appears to represent correctly the symptom in question in many cases. Dr. Chambers notices the occurrence of epistaxis in several instances. Capillary bronchitis was frequently present; pneumonic consolidation in some cases. Death commonly resulted from large, but apparently not inflammatory, effusions of clear serum into the pleuræ and pericardium. Consequently, there were palpitation and great præcordial distress and orthopnœa. Anæmic murmurs were frequently present. Dr. McLeod, speaking from large observation, stated that "death where it occurred would seem always to be sudden and associated with dyspnœa." Many early writers described the suddenness of death in beriberi. Malcolmson and McLeod use nearly the same words. The former wrote, "there is oppression and weight at præcordia, dyspnœa on slight exertion, diffused and irregular pulsation in the cardiac region." . . . . "The patient is often found dead in bed, or sinks after several fainting fits or throbbings of the heart." The urine was often noticed to be high-coloured, scanty (not always) almost suppressed, but there was no albuminuria or other evidence of Bright's disease. In a solitary case, which I think goes for nothing, there was "a small quantity of albumen." In some cases, the urine was of very low specific gravity. Here and there a case is reported to have commenced or terminated with diarrhœa, or there was diarrhœa at the height of the disease, or dysentery later on; but, in most cases, there was constipation; in several agonising pain in the lower bowel in defæcation. In many cases, in persons who were not sailors, the state of the gums gave evidence of scorbutus. In some the gums were healthy. In examining a considerable number of Bengalis, we may always expect to find that some are scorbutic, but it does not appear to be shown that scurvy was generally present among these patients. Still, Dr. McLeod observed that "in a few cases the gums were rather swollen and bled when the teeth were cleaned." "Neither an anæmic nor scorbutic condition appeared to be an essential precursor of the malady, though a certain degree of both dyscrasiæ seemed to be developed in its progress."

Most of those who observed the disease at its outbreak, in 1877, met with many cases which did well. In 1880, there were numerous deaths. In February, Dr. Cayley reported four deaths, and two persons in a dangerous condition in one family. In that month, Dr. McLeod, Health Officer of Calcutta, said that the town returns showed 266 cases and 51 deaths, and the suburban 364 cases and 163 deaths. It was observed by Dr. Harvey and others, that the disease was not confined to the poor and ill-fed; rich and well-to-do people, well-fed and living in well-raised and very dry houses, were quite as freely attacked as the poor, living in damp huts on the ground level. "The disease," says Dr. McLeod, "lasted for two or three months in well-developed cases." In the huge mass of evidence which I have analysed, I see no mention of the duration of very rapidly fatal cases, save in one, by Dr. Chambers, in which death appears to have occurred in three days.

There are only two reports of autopsies, made in February 1880, by Tumeez Khan. The most remarkable appearances were general œdema. Integuments of the lower limbs "hard and brawny," not pitting on pressure, and loaded with effused sero-sanguinolent fluid. There do not appear to have been any head symptoms during life, and no marked cerebral lesions were discovered. Large effusions of limpid serum, without traces of inflammation, in the pleural and pericardial sacs. Considerable œdema and carnification of the lungs. Heart flabby, normal in size (in one or both cases?), fatty. No peritonæal effusion, no noteworthy renal lesion. In both of Tumeez Khan's cases, as in most of the other reported autopsies, there was marked hepatic congestion. Blood thin and watery, with a marked excess of white corpuscles.

(*To be continued.*)

THE CHEMICAL EXAMINATION OF FOUR CASES OF ARSENICAL POISONING AT LIVERPOOL.

By J. CAMPBELL BROWN, D.Sc.,
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E. DAVIES, F.C.S., F.I.C.,
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THE recent cases of arsenical poisoning in Liverpool have attracted so much attention, owing to the interesting legal questions decided during the trial, the wholesale character of the crime and the nature of the compound of arsenic employed, that it is perhaps desirable to place on record an authentic account of the chemical examination of four of the victims.

The first case examined was that of Thomas Higgins, who was first seen by Dr. Whitford, on September 25th, 1883, when he was found to be suffering from pain in the bowels and diarrhœa, and who died on October 2nd. The *post-mortem* examination was made on October 4th, and the stomach with its contents, the duodenum and the whole of the intestines, part of the spleen, the heart, one kidney, and a small part of the liver, were taken in a single jar (sealed) to Mr. Davies, at the Royal Institution Laboratory, Liverpool.

Judging from the redness of the stomach and intestines that the poison was probably arsenic, a microscopical examination was made, but no particles of arsenic, nor soot, nor indigo were discovered. Mr. Davies, on October 6th, extracted a considerable quantity of arsenic from 1 oz. of the contents of the stomach, and converted it into octahedral crystals of As_2O_3. He then chopped up fine an average mixture containing proportional quantities of the solid portions of the several viscera, and from 1 oz. of the mixture extracted a considerable quantity of arsenic which he identified by conversion into octahedral crystals of As_2O_3. Four ounces of this mixture were treated by Fresenius and Babo's method, and ·08 grains of As_2S_3 were obtained, equal to ·064 grains of As_2O_3.

Assuming the weight of the whole abdominal viscera to have been 80 oz., which is a very low figure, the weight of arsenic in the whole must have been, at least, 1·28 grains.

Part of the As_2S_3 was converted into arsenic acid, and precipitated with silver nitrate. The arseniate of silver was thus produced, and afforded confirmation of the identity of the arsenic.

Another 2 oz. of the mixed solid viscera was dried and distilled with strong hydrochloric acid; in one half of the distillate arsenic was detected by Marsh's test; in the other half arsenic was detected by Reinsch's test.

All the materials used in these investigations were first tested for arsenic, and found to be perfectly pure.

From these results, Mr. Davies gave it as his opinion that sufficient arsenic had been taken to cause death, because arsenic was undoubtedly distributed throughout the whole body, and much of it had been removed by vomiting and purging, as well as by excretion through the urine, and he believed it probable that the quantity remaining in the body after death was sufficient to kill a man.

On January 17th, 1884, the remaining portions of the viscera in the jar were taken to the Laboratory of University College, Liverpool, and on January 24th Dr. Campbell Brown commenced the examination. He extracted the arsenic from 2 oz. of the contents of stomach, and 2 oz. of the solid mixed viscera, and obtained, by Reinsch's method, a comparatively large quantity of crystals of As_2O_3, which he converted into the lemon-yellow arsenite of silver.

From $\frac{1}{2}$ oz., or 10 grammes, of the spleen separately, he obtained a comparatively large quantity of arsenic by Reinsch's method, and converted this into As_2O_3, and finally into arsenite of silver. He confirmed this by extracting the arsenic from the remainder of the spleen.

From $\frac{1}{2}$ oz. of the liver he extracted a small quantity of arsenic by Reinsch's method, and converted it into As_2O_3 and arsenite of silver. From a similar portion of the duodenum he extracted a considerable quantity of arsenic, and confirmed its presence in a similar way.

The proportion of arsenic in the spleen was at least five or six times as great (estimating it roughly) as in the liver, which contained very little arsenic, while the duodenum contained an intermediate proportion.

From these results, taken along with the other evidence, he inferred that a much larger quantity of arsenic must have been taken than was actually extracted, seeing that the arsenic pervaded the whole body, while some of it had been removed from the body by excretion, and by vomiting and purging; and he expressed the opinion that the deceased had died from arsenical poisoning, and that some of the arsenic had been taken several days before death, and probably some of it shortly before death.

Both chemists found arsenic in the fluff taken from a market pocket, found on one of the prisoners, and also extracted a considerable quantity from the pocket itself. In both cases the arsenic was converted into octahedral crystals and into arsenite of silver.

They both found a small quantity of a very dilute neutral solution of sodium arsenite, in a small flat spirit flask, taken from the dwelling of one of the prisoners. The sides of the flask were covered with brown coloured particles, and short particles of linen fibres.

Mr. Davies found in a portion of the stock of liquor bismuthi, from which the deceased's medicine had been taken by the dispenser of Dr. Whitford's prescription, bismuth, ammonia and citric acid, but no arsenic.

On the evening of the first day after the trial, Dr. Campbell Brown examined nine samples of different varieties of fly paper, purchased that day in Liverpool. In eight of these he found large quantities of arsenic in the form of neutral sodium arsenite, easily soluble in cold water. (The quantity was, after the trial, found to vary from 4 to $5\frac{1}{2}$ grains of arsenic per sheet.) The solution from each resembled the contents of the prisoner's, and in two of them the appearance of the colouring matter, as well as the fibres, corresponded exactly with the contents of the flask.

Some of these papers were labelled "poison," and some bore a printed warning to keep them out of the reach of children and animals.

The second case examined was that of Margaret Jennings, a girl of about twelve years of age, who died on January 25th, 1883, and whose body was exhumed on November 16th, 1883, having been in the grave about ten months. The *post-mortem* examination was made by Dr. Lowndes. Five jars were taken to Mr. Davies's laboratory, containing:—

1. The stomach and duodenum.
2. The liver, spleen and one kidney together.
3. The large intestines.
4. The small intestines.
5. The rectum, bladder, and uterus.

No. 2.—The liver, spleen, and one kidney, weighing only $16\frac{1}{2}$ oz., were examined first. In 1 oz. of the mixed contents of this jar, Mr. Davies extracted arsenic by Reinsch's method, and converted it into octahedral crystals of As_2O_3. He also treated $4\frac{1}{2}$ oz. by Fresenius and Babo's method, and obtained 0·3 grain of As_2S_3, which was finally converted into silver arseniate.

He next tested a portion of the spleen, liver, and kidney, each separately, by Reinsch's test, and obtained arsenic in the liver and kidney, but not in the small portion of the spleen taken; that is to say, the copper strip was darkened, but no distinct crystals of As_2O_3 were obtained.

No. 1.—In 1 oz. of the stomach he found arsenic by Reinsch's test more abundantly than in No. 2.

In Nos. 3 and 5 he obtained no distinct result.

From these results he came to the conclusion that the quantity of arsenic in the liver, spleen, and kidneys was about 1 grain, and that the arsenic in the whole abdominal viscera was not more than $\frac{1}{4}$ grain, and consequently he declined to say positively that arsenic was the cause of death.

On January 17th, 1884, the portions remaining in jars 1, 2, and 4 were taken to University College, and on January 23rd, Dr. Campbell Brown commenced the examination of them.

No. 1.—From the remainder of stomach and duodenum, about 3 oz., he extracted a small quantity of arsenic which was converted into octahedral crystals of As_2O_3, and finally into silver arsenite.

No. 2.—From portions of the liver, spleen, and kidney together, arsenic was extracted and identified in a similar way, and from about one-third of the entire spleen separately a small quantity of arsenic was extracted and identified in the same way.

No. 4.—From about 3 oz. of the small intestines a small quantity of arsenic was extracted and identified in a similar way.

No quantitative analysis was made.

From these results, he expressed the opinion that a larger quantity of arsenic than Mr. Davies found was actually present in the body, because it was distributed throughout the whole body, and part had probably been eliminated. He declined to say that arsenical poisoning was certainly the cause of death, although the presence of arsenic throughout the whole viscera afforded presumptive evidence of arsenical poisoning.

The third case was that of Mary Higgins, aged about ten years, who died on November 29th, 1882, was buried on December 1st, 1882, and whose body was exhumed on January 1st, 1884. The *post-mortem* examination was made by Drs. Whitford and Lowndes, who sealed up and delivered the following three jars, viz.:—

A.—Containing the stomach and contents.

B.—Containing the liver, kidney, and spleen.

C.—The large and small intestines.

On January 17th, Mr. Davies and Dr. Campbell Brown together made an examination of these. All the viscera were very much shrunk, but well preserved.

A.—The stomach was lined with a little dark grumous matter, but there were no measurable contents. In the folds were some crystals of ammonio-phosphate of magnesia, but no solid arsenic could be detected by the microscope.

C.—The vessels of the mesentery were remarkably yellow. There was nothing in the intestines, but the whole had a golden yellow colour, and there were many large crystals of ammonio-phosphate of magnesia. There was no solid arsenic.

From 1 to 1½ oz. of the contents of each jar were separately treated by Reinsch's test; arsenic was extracted from each, and was identified by conversion into octahedral crystals and lemon-yellow arsenite of silver. Arsenic was also extracted from one portion by Marsh's test.

The contents of *A* and *C* together weighed about 9 oz. One-half of both, or 4½ oz. in all, was treated by Fresenius and Babo's method, on January 22nd, and ·308 gr. of As_2S_3 was obtained, equal to ½ gr. of As_2O_3 in the whole of the stomach and intestines.

The identity of the arsenious sulphide was confirmed by chemical tests, and it was finally converted into arseniate of silver.

The contents of *B* weighed 16 oz.; one-fourth of this was treated by Fresenius and Babo's method, and ·154 gr. of As_2S_3 was obtained, equal to about ½ gr. of As_2O_3 in the whole of the liver, spleen, and kidneys. The identity of the arsenious sulphide was established in a similar way.

The quantity of arsenic found in the spleen and other organs, was sufficient to prove that a still larger quantity of arsenic had been taken, certainly enough to cause death.

The fourth case was that of John Flanagan, who died on December 7th, 1880, aged 22, and was buried on December 9th, 1880. The body was exhumed on January 16th, 1884, having been more than three years in the grave. The *post-mortem* examination was made by Drs. Lowndes and Whitford, who sealed up and delivered the three following jars:—

D.—Containing the stomach with part of the œsophagus.

E.—Containing the liver, spleen, and kidneys.

F.—Containing the large and small intestines.

The viscera were very much shrunk, but well preserved, and emitted very little odour. The stomach and intestines contained large crystals of ammonio-phosphate of magnesia, and nearly the whole of the intestines and mesenteric vessels were lined with a bright yellow coloured mud, especially at parts which were red and congested. No solid arsenic or arsenical compound was found by the microscope.

From 1 oz. to 2 oz. of the contents of each jar were treated separately by Reinsch's method, and a large quantity of arsenic was extracted in each case, this was identified by conversion into octahedral crystals of As_2O_3, and finally into arsenite of silver

Arsenic was also extracted by Marsh's test.

The contents of *D* and *F* together, weighed about 21 oz. On January 24th, one-sixth of both were treated together by Fresenius and Babo's method, and 1·672 grains of As_2S_3 were obtained, this is equal to 1·34 grains of As_2O_3 in the whole of the stomach and intestines. The arsenic was finally converted into arseniate of silver.

The contents of *E* weighed about 24 oz. One-sixth was treated by Fresenius and Babo's method, and 2·4 grains of As_2S_3 were extracted, equal to 1·92 grains of As_2O_3 in the whole of the liver, spleen, and kidneys. The identity of the As_2S_3 was established by chemical tests, and it was finally converted into arseniate of silver. From these results they stated their opinion that sufficient arsenic remained in the viscera to cause death, and that much larger doses must have been taken.

In cross-examination and re-examination, Dr. Campbell Brown denied that solid arsenic, or indigo, or soot would necessarily have been found if they had been taken shortly before death, but said that the failure to find these pointed to the conclusion that arsenic was probably taken in solution. He also denied the possibility of arsenic having got into the viscera from the soil of the cemetery, even if it had been present there. No arsenic was found in the grave clothes, and the coffin was intact when exhumed.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

METROPOLITAN FREE HOSPITAL.

A CASE OF FRACTURED RIBS—WOUND OF THE LUNG — PLEURITIC EFFUSION — ASPIRATION — PYO-PNEUMO-THORAX — FREE INCISION—RECOVERY.

By W. J. WALSHAM, F.R.C.S.,
Surgeon to the Hospital, &c.

[The following notes were taken by Mr. ENNIS, Junior House Surgeon.]

SAMUEL S., a boy aged 16, was admitted into the Metropolitan Free Hospital under the care of Mr. Walsham on the evening of November 3rd, 1882, having been run over by a hansom cab. On examination, the eighth, seventh, and probably the sixth ribs were found fractured on the right side, a little in front of their angles. As the patient was suffering from some amount of shock, and his respiration was considerably embarrassed, he was at once admitted and put to bed. The injured side was strapped, and a bandage applied. Three hours after admission he began to cough up bloody mucus, and subsequently almost pure blood. Crepitation was heard over the right base and at the seat of injury. He was put on low diet, an ice-bag was applied to the injured side, and he was ordered ice to suck, and to take Pil. Plumbi c Opio gr. iv. every four hours.

On the morning of the 4th, he appeared excessively distressed, respirations 60, pulse 120, small and thready, temperature normal; he was still coughing up large quantities of blood. In the evening, respirations 36, pulse 108, temperature normal.

On the 6th the hæmoptysis was less, but he still coughed up frothy blood and mucus. On the 12th, the hæmoptysis had quite ceased, and his chest, with the exception of some crepitant *râles* posteriorly, appeared normal.

At 9 a.m. on the 13th he had a distinct rigor, and at 12 noon the temperature had risen to 103° F. The hæmoptysis again returned, and severe pain in the side was complained of. He was ordered a linseed-meal poultice to the chest, and Quinæ Sulph. gr. 1 every four hours. At 9 p.m. the pulse was 140, respirations 60, temperature 102.

On the 14th his temperature was 103·8, pulse 140, respirations 66. Physical signs of fluid in the pleura began to appear, but the patient's condition was too serious for an accurate examination to be made.

On the 15th, the morning temperature was 100·3, pulse 160, respirations 72. The right chest was now completely dull to percussion. Breathing sounds were absent, except at the root of the lung over the whole of the right side; the heart's apex was displaced one inch to the outside of the left nipple line. Aspiration was performed, and three pints of bloody fluid were drawn off.

On the 17th, the right chest was dull to percussion as high as the seventh rib posteriorly; above this resonance was tympanitic, the breathing amphoric, and metallic tinkling could be elicited over the whole of the tympanitic region. Temperature 99, pulse 120. On the 21st, the chest was again aspirated, and about two pints of blood-stained fluid was drawn off.

On the 23rd, temperature went up to 102·4, respirations 42. Aspiration was repeated, and twelve ounces of purulent fluid were drawn off. The patient was now placed under chloroform, and the chest incised in Marshall's space under the spray, and dressed anti-

septically. A pint and a half of purulent fluid was evacuated. The fluid was mixed with air, and it was quite evident that there was a communication between the pleura and a large bronchus. After the evacuation of the fluid, the whole right side of the chest became tympanitic; the breathing sounds amphoric, and metallic tinkling could be elicited all over. The pleura was ordered to be washed out daily with carbolic lotion (1 to 100). Notwithstanding this, the discharge became fœtid; and it was found impossible to remove all the fluid through the existing opening. A counter-opening was accordingly made in the ninth intercostal space, nearly as far back as the angle of the rib. The washing-out was ordered to be continued. After the second opening was made, the discharge rapidly decreased in quantity and became sweet. The temperature fell to normal, the general condition improved, and the tympanitic note diminished. On December 4th the patient got up for the first time. On examination on the 6th the lung appeared to be expanding, and but little sputum was coughed up.

On the 20th, the opening in Marshall's space had healed. There was scarcely any discharge through the lower one. The chest was still washed out daily.

28th.—The patient was gaining flesh. The right side was much contracted, and there was a compensating spinal curvature with the concavity towards the right.

From this time he rapidly convalesced; the chest-walls fell in, and the lung expanded to meet them; the discharge from the lower opening rapidly diminished in quantity; he gained flesh and strength, and was discharged to a Jewish Convalescent Home.

On April 19th, he again came to the hospital. He was looking remarkably well, and had gained more than a stone in weight. The right side of the chest had markedly expanded; the percussion note, although slightly impaired all over the right side, was nowhere dull, and air appeared to enter the lungs freely. The lower wound had soundly healed. The lateral curvature had almost disappeared, and a cyrtometric tracing showed but slight difference in the two sides of the chest.

Remarks.—This case presents several features of considerable interest. Although it was not known, when the boy presented himself at the hospital, that the lung had been wounded, he appeared to have received a serious injury of some internal organ, and was at once admitted. The hæmoptysis did not come on till three hours after admission. When he was seen the next morning the bleeding was quite profuse, and his condition seemed critical. There did not appear to be any bleeding, or at least to any extent, into the pleural cavity, and there was no emphysema about the injured ribs. He had, apparently, quite recovered from the wound of the lung when he had the rigor ten days after admission, which seemed to be due to his taking cold in consequence of getting out of bed without leave in the early morning. The fluid, removed on aspiration, was of a dark red colour; it consisted of serum, mixed with a large quantity of blood. The communication between the lung and the pleural cavity would appear to have been produced by the yielding of the healed wound of the lung to the pressure exerted upon it on drawing off the fluid from the pleura with the aspirator. The aspiration was delayed for some time for the purpose of allowing the wound of the lung to consolidate, lest, as actually happened, in withdrawing the fluid from the chest, the communication between the bronchus and the pleural cavity should be re-established. The incision in Marshall's space failed to thoroughly drain the chest, and it was not till an opening had been made in the ninth space, far back, that this object was accomplished. The lad ultimately made an excellent recovery, and it would appear that his lung has received but little permanent injury.

Medical Times and Gazette.

SATURDAY, APRIL 5, 1884.

When on Monday last Lord Carlingford proposed that the third reading of the Government Medical Bill should be taken on Thursday, the Duke of Richmond professed himself incapable of comprehending why the Government should be in such a hurry to get the measure passed through the House. But everybody can understand, and to some extent sympathise in, Lord Carlingford's desire to have done with it. Having shown himself anxious to satisfy, or at least to pacify, all troublesome and dangerous opponents of the measure, he has met with the fate that usually attends such attempts; and so long as the Bill was before the Upper House, he was pressed to admit fresh amendments. When the Bill was in Committee, he proposed and carried an alteration in the Constitution of the Medical Board for Ireland, and we, last week, expressed a doubt whether the change would give satisfaction. On Monday, Lord Carlingford had to state that it had proved to be extremely unacceptable, and must be given up. On the third reading of the Bill, he accordingly proposed, that instead of allotting three representatives to each of the two Universities in Ireland, and a seventh representative to be elected by those bodies collectively, four representatives should be given to the University of Dublin, and four to the Royal Irish University. This change was accepted, and thus the Universities will have eight, and the Medical Corporations six representatives on the Board for Ireland. In the House of Commons, the Vice-President of the Committee of Council, Mr. Mundella, will have charge of the Bill.

The fervour and industry with which so many Members of the Lower House of Legislature have devoted themselves to the cult of "intelligent curiosity" are unbounded and irrestrainable; still, we would suggest to those among them who have taken under their special care the question of over-pressure in elementary schools that one of Mr. Mundella's latest answers on the subject may very well be accepted as sufficient for some time, though it is not in every point quite satisfactory. He states that the Education Department are convinced, by the overwhelming weight of evidence given by Her Majesty's Inspectors, that the alleged over-pressure does not exist, so far as the children and the requirements of the Code are concerned. They feel, however, that cases of over-pressure may occur under any Code that could be devised, and they have taken every possible precaution against this in the New Code. They are also confirmed in the opinion that the reduction of the hours of teaching by female pupil teachers was absolutely necessary, and they would be glad to give still further relief to them, if possible. Mr. Mundella added, that he had caused every complaint of over-pressure, alleged to be due to the Code, to be enquired into, and that in every instance the case had broken down.

THERE is not yet, however, any sign that Members of Parliament will cease, even for a while, to put questions on this subject. And in reply to another query of the kind Mr. Mundella said that the managers of public elementary schools will be generally held responsible for the conduct of the schools and of the school-masters, for issuing directions to the teachers not to press children of weakly constitution, and for seeing that such directions are obeyed. There are, he stated, two reasons for withholding children from examination—one for the protection of the child, and one for the purpose of obtaining larger grants for the schools. The latter must of course be discouraged, and the former encouraged, and the managers of the schools must be trusted, subject to the supervision and judgment of the Inspectors, to distinguish between the two classes of cases. This amount of control will probably not satisfy the critics of the elementary schools system; but multiple checks never work without considerable friction; and cannot be made absolutely perfect, as the final element must be, trust in some one human being.

THE revised Education Code, which has for some time been before Parliament, was discussed in both Houses on Tuesday night. The debate in the House of Lords ended in the withdrawal of an amendment proposed by Lord De la Warr. In the Lower House, Mr. S. Leighton proposed a resolution to effect three alterations in the Code, to secure:—firstly, "that scholars under seven years of age shall not be presented for examination individually, but by class"; secondly, "that greater liberty than at present shall be given to managers and teachers, to classify children according to acquirements and abilities"; and, thirdly, "that a larger share of the Government grant shall depend upon attendance, and a smaller upon individual examination." It was, however, clearly shown by Sir Lyon Playfair, who spoke forcibly in favour of the New Code, and by Mr. Mundella and Mr. Forster, that the first two objects of the resolution are met by the Code as it now stands; and that the third clause would not have the effect the mover desired, and might prove very mischievous to education; in the end the resolution was defeated by 184 votes against 135. Mr. Leighton stated, that the question really before the House was, whether over-pressure in schools should continue, or should be abolished, once and for ever. The latter object is not, we believe, for the reasons already stated, attainable. The many questions put on the subject, and the discussions provoked by them, have unquestionably done much good. They have drawn attention to the whole subject of over-pressure in schools, and to the necessity for constant and careful supervision of the working of the Code. But it will be well now to cease from public criticism for a while, and be content to watch the management of the elementary schools under the new and revised rules.

A CONSIDERABLE time has elapsed since any public statement was made as to the mischief done by the partial suspension of the Contagious Diseases Acts. But on Thursday last week Mr. Campbell Bannerman had to admit, in the House of Commons, the correctness of Lord E. Cecil's statement, that the rate of admission to Plymouth Hospital for contagious diseases had risen from 104 per 1,000 during the last six months of 1882, when the Acts were in full operation, to 230 per 1,000 during the last six months of 1883, when the compulsory examination provisions of the Acts were suspended. The figures quoted were taken from a return laid on the table of the House, on March 7th; and it is to be remembered that they refer to only a part of the evils that have followed on the action of Government in the matter.

AT the meeting of the Clinical Society, on Friday last, the proceedings opened with a paper by Dr. Finlay, on the association of enteric fever and rheumatism in the same person. The discussion on this subject did not add much to our knowledge, as most physicians have seen cases of enteric fever preceded by rheumatic symptoms, which have hitherto been regarded rather in the light of prodromata. One of Dr. Finlay's cases read as if the patient might have contracted the enteric fever in the hospital. There is no good reason why a person suffering from rheumatism should be proof against typhoid; indeed, there is evidence which points exactly the other way. Mr. Davies Colley's case of dislocation of the spine, treated by extension, is most encouraging, and ought to give a great impetus to so rational a mode of treating an injury, which too often, we fear, has been left untreated, because precedent, rather than common sense, has been allowed to rule the roast. Mr. Durham's case was one of those very obstinate so-called frontal neuralgias cured, after every less severe measure had been given a fair trial, by trephining. It would be interesting to know whether this operation often fails to bring about the much-desired relief.

THE Pathological Society on Tuesday last commenced their evening's work with the account by Mr. Davies Colley of a remarkable and closely studied case of so-called juvenile osteo-malacia. The child seems to have been under his observation during nearly the whole of her illness, and the case was therefore unusually complete. Mr. J. B. Sutton made a further communication on the subject of rickets in wild animals, summing up the result of his now considerable experience in this till quite recently almost undisturbed field of pathology. These two papers led Prof. Humphry, whose labours at the Medical Council had not deterred him from attending the meeting, to make some very interesting observations on the pathology of rickets, and on the changes that take place in the bones of old people.

AT this evening's (Friday's) meeting of the Glasgow Medico-Chirurgical Society Dr. Wolfe will show a case of total blindness from detachment of the retina, cured by operation.

THE sudden death of the Duke of Albany which has called forth such sincere expressions of sympathy with the Royal Family throughout the length and breadth of the land, is a misfortune for science in this country.

The late Prince had on many occasions evinced a deep interest in scientific questions, and as an active member of the Parkes Museum Council and the Kyrle Society, he had afforded proof that this interest was of a real and practical kind. As to the cause of his death we shall not here surmise, but we have it on the authority of no less a person than Sir William Jenner, that the Prince was the subject of hæmophilia. Now, it is well known to medical men that the life of a person suffering from this affection hangs by a thread, and there are several cases on record in which death followed very speedily on injuries which would have been but trivial to a healthy person. As to whether the death was due in this instance to effusion of blood on the brain or to epilepsy there is no evidence before us, from which we should be justified in forming an opinion.

The feeling which induced Dr. Chambers to introduce his motion at Wednesday's meeting of the General Council, in respect of the time-limit at *vivâ voce* examinations, and Mr. Teale to second it, will be appreciated and shared in by many, if not all, of those who have passed through the ordeal so well described by Dr. Chambers. The main object of an examination is to find out what a man knows; and in order to do this, surely the first thing is to set him at his ease. Now, the admirable machinery, as Mr. Teale called it, of the College of Surgeons Examinations is not, with the utmost deference to Mr. Marshall, in our opinion, well calculated to attain this object. We should very much like to know how many men really do themselves justice in that examination. Mr. Marshall says they never have any doubt about the decision in respect of any of their candidates—a truly remarkable confession; it cannot be in the best interest either of the examinees or of the public, that the verdict should always be an off-hand one. We would hope that Mr. Marshall has expressed himself too strongly, and that he and his colleagues do not really decide so hastily as he has led us to infer.

Sitting as both judge and jury, Baron Huddleston decided, on Tuesday, a case that may have very important consequences for medical officers of workhouses and lunatic asylums. A widow sued a Board of Guardians for compensation for the loss of her husband, who threw himself from a window of the workhouse infirmary to which he had been admitted in a fit of *delirium tremens*, and was killed by the fall. The widow gained her action, and was awarded 350*l*. by the learned judge. The main contention of the widow was, that the death of her husband was owing to negligence of the Guardians and of their servants; and negligence was unquestionably present and proved. A certain window had been reported as unsafe. In 1878, a patient in the same infirmary had committed suicide in precisely the same manner, by throwing himself from the same or a similar window. After that occurrence the Guardians placed bars to the window, but their medical officer had reported that the bars were insufficient and the window still unsafe. No alteration was made, however, and this was the negligence on the part of the Guardians that was relied upon by the plaintiff. The ward in which the deceased was placed was tenanted by forty patients, all of whom were under the care of a single nurse. This nurse was warned by the wife of her husband's suicidal propensities, but did not attach much importance to the warning, and during her temporary absence from the ward the act was committed. It was alleged that if the nurse had been present the act could have been prevented, and her absence from the ward was part of the negligence charged against the servants of the Guardians. The remainder of the negligence alleged was that of the medical officer, in sending the patient to the ward from which he threw himself, instead of to the lunatic ward; but it was proved that the lunatic ward, which held only three patients, was fully occupied at the time. The learned judge held that negligence was proved against the Guardians, against the medical officer, and against the nurse, found the damages as stated, and refused to stay execution pending an appeal.

It will be seen that this decision adds very materially to the responsibilities of Boards of Guardians, of visitors of lunatic asylums, and of the medial officers and nurses who serve these bodies. Looking at the matter from a narrowly professional point of view, it must first be said that medical superintendents have no cause to regret the precedent thus created. So long as they do their duty, and take every reasonable precaution, they have no reason to fear the consequences of an appeal to a jury. On the other hand, such a decision as that given by the learned Baron will immensely strengthen their hands in carrying out such alterations in the structure and management of asylums, and in the strength and efficiency of the nursing staff, as may be desirable for the safe custody of their patients. To the Board of Guardians the decision is very unsatisfactory, and it must be admitted is one of some hardship. Of course they ought to have guarded the window more securely; but then it must be borne in mind that a workhouse infirmary is not a lunatic asylum, and is not constructed, nor intended, for the detention and care of suicidal lunatics. The workhouse infirmary was not the proper place for this patient: he ought to have been in a lunatic asylum, and for the error in detaining him in the workhouse the Guardians are not directly responsible. Moreover, it is to be borne in mind that the man had brought himself to his condition of lunacy through his own act. He had drunk himself into a state of *delirium tremens*, and so became chargeable to the ratepayers; and now he has committed suicide through this voluntarily induced madness, the same ratepayers who supported him during his self-created illness are called upon to compensate his widow for his death. The inequitable character of this result will appear more conspicuous when we call to mind that about five years ago it was decided that the Guardians could recover the cost of his maintenance from a man who became chargeable to them in consequence of drunkenness.

Dr. Colton, of Portsmouth, on the Ohio river, writing to the *Medical Record*, March 15th, gives a graphic and sad description of the sufferings caused

there by the flood. For nine days his office and residence were under water, his medical books, the accumulations of thirty years, nearly all destroyed, and his medicines spoilt or washed away. He had to swim his horse to get to high ground. "I went," he says, "from house to house in hurriedly improvised boats, entering the second stories through the windows, or climbing ladders, passing over the roofs, and descending through hatches. There was much sickness and suffering, especially among children. Many women aborted from exposure and terror, and there were a number of cases of eclampsia among the parturient women. Many houses are wrecked, or have been washed away down the raging waters, with all their contents. Our people are impoverished, and it will be long before they have anything to 'spare for the doctors.' Six thousand of them are fed to-day by the generous gifts of the noble people throughout our land. If you know of any physicians in your city, who have duplicate copies of medical works, or anything in the line of physician's supplies, for which they have no use, they will confer a favour if they will send them to Portsmouth."

Any public institution in want of funds may mostly be left to take its own measures for raising money. The activity displayed by a lady connected with one of our hospitals is, however, causing a good deal of ill-feeling in certain aggrieved circles. Medical men, in a state of single blessedness, find it rather trying to receive a letter addressed to Mrs.——, enclosing a lithographed letter, to be passed on "to the children." The modest request for half-a-crown scarcely soothes away the feeling of irritation first excited. We have not yet heard whether similar letters were addressed to *all* members of the profession whose names are to be found in the "Medical Directory," but if so, we wonder how our sisters from the Ladies' School of Medicine appreciated this new phase of 'cuteness.

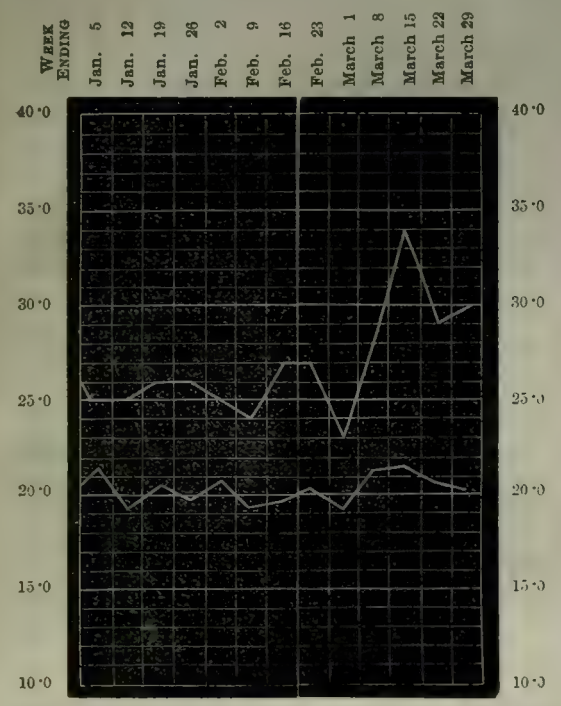
The truth of the old adage as to the superiority of Prevention over Cure has never better demonstrated itself than in the case of incurable epidemic disease. The value of its application to epidemic leprosy has of late been carefully investigated by Dr. Vandyke Carter, and the conclusions to which he has been led are to be found in a memorandum on the Prevention of Leprosy by Segregation, in the *Bombay Government Gazette* of March 6th, 1884. His paper chiefly consists of a critical examination of the facts and figures presented by the Director of the Leper Hospitals in Norway, where the gradual introduction of a system of segregation has been maintained for many years past; a further object of the paper being, to consider the possibility of introducing a similar system into India. In Norway, the results of segregation, whether in asylums or in the patients' own homes, have been decidedly satisfactory. The number of cases on record at the beginning of each year has diminished from 2,863 in 1856 to 1,717 in 1880; the death-rate also has fallen from 14·2 per cent. to 9·3 per cent. A few cases have been discharged as cured, but the permanency of this condition is probably open to question Still a large number of fresh cases are reported in each year; and it must often happen that before they can have been isolated, or even recognised, they have become *foci* for the local radiation of the disease in their respective districts. It has been, however, confidently prophesied, and the prophecy has been founded on figures, that it will be possible to eradicate the disease altogether, in the fulness of time, by strict adherence to this segregatory method.

The assertion sometimes made that leprosy is influenced in its origin by hygienic conditions is not borne out by the Norwegian experience. Improvements in hygiene offered no check to the progress of the disease until the establishment of the more radical system. The deterrent action, even of the latter method, has been very slow, although steady in mitigating the scourge, and it is still an undeniable fact that the *ratio* of the spread of leprosy in Norway remains unaltered. Applying the experience thus gained to the state of things in India, Dr. Carter is of opinion that isolation in some form or other is the only remedy which can reasonably be looked to as effective. The practical application of this view is possibly in three ways: I. By establishing properly supervised asylums. II. By founding leper colonies or villages. III. By isolating patients in their own homes. The main difficulty which would naturally arise in maintaining absolute isolation lies in the fact that so many lepers are in other respects able-bodied, and would be less likely to submit to any restriction of their liberty than are the sufferers from acute infectious diseases, who are willing to undergo the shorter term of isolation without question or complaint. Dr. Carter's paper is concluded by remarks on the bacillus of leprosy, and two excellent drawings are appended which show with great distinctness its resemblance to that of tubercle.

The death-rate of the 28 English towns last week showed a fall of 1·3, and that of the 8 Scottish towns a rise of 2·4 per 1,000 compared with the figures of the previous week. In the former, measles, scarlet fever, and diarrhœa were, comparatively, the most fatal of the zymotic diseases; in the latter, diphtheria and whooping-cough. The Scottish towns have an aggregate population of less than a seventh of that of the English towns, and yet diphtheria caused 18 deaths in the former to only 20 of the latter, 12 of which 20 occurred in London.

The most startling feature of last week's London return is the increase of small-pox. It has not told yet markedly on the death-rate, only eleven fatal cases being recorded; but the number of small-pox patients in the Metropolitan Asylums Hospitals and hospital-ships has almost doubled in the last fortnight, and on Saturday last amounted to 264. Ninety-two new cases were admitted during the week. Scarlet fever, diphtheria, and diarrhœa, on the other hand, appear to be declining, while the effect of the east wind of last week is shown in an increased mortality from whooping-cough. The

deaths from this cause numbered 112, or twelve above the average. We, again, append a chart, showing the



The lower line represents the annual death-rate per 1,000 from all causes in London, in each week of the last quarter.
The upper line represents the annual death-rate per 10,000 from zymotic diseases in London, in each week of the last quarter.

rise and fall of the general and zymotic death-rates of the metropolis during the past quarter.

From a paper recently read by Dr. Edward Otis, before one of the Boston societies, the practice of smoking by boys seems to be even more prevalent in the United States than among ourselves. As large a proportion as from 50 to 75 per cent. of the pupils in some of the large schools are said to indulge in the habit, their special instrument of indulgence being the cigarette. The authorities in the naval and military academies have, indeed, become so convinced of the prevalence and mischievousness of the practice, that they have prohibited it absolutely, and congratulate themselves on the good effects that have resulted from this action. Incorrigible smokers, we are told, have also been weeded out of other large schools. In one of these, on positive prohibition being contemplated, the principal issued a circular to the relations and guardians of the boys, in order to learn how far their co-operation and approval of the attempt could be relied upon. Of 160 replies, all expressed unqualified disapproval of the use of tobacco by boys, and 124 were in favour of absolute prohibition, the remainder not expressing an opinion on this point, or doubting its practicability. Dr. Otis confined his statement to boys, in whom he considered the practice is infinitely more injurious than in adults, and he sums up the results of the investigations he has made as to the effects of the cigarette smoking by them, as follows: 1. Impairment of the general development both physically and mentally. 2. The production of what has been called the "tobacco heart." Dr. Gibon, in his report on the U.S. Naval Academy, which led to the prohibition of smoking, has stated that at the annual examination of cadets, a large number of irritable hearts were discovered among boys who had no such trouble when they entered the school. 3. Defective muscular co-ordination, as shown in tremulousness in manipulation, and inability to draw a perfectly straight line. There is reason to believe that this is but a temporary condition, lasting only while the tobacco is used. 4. Reduction of intellectual power by impeding mental application and effort, or by deterioration of the intellect—probably by both, to a greater or less extent. 5. Impairment of memory, which would seem to be permanent. 6. Defect of vision, and more or less chronic irritation of the external parts of the eye. 7. Undue excitement of the sexual system, although the proof of this is not positive. 8. Irritation of the mucous membrane of the mouth and throat—especially in cigarette smoking. 9. Impairment of digestion and its consequences. The discussion which followed the reading of the paper did not throw any additional light on the topic treated on by Dr. Otis, the effect of tobacco on boys, the experience of the speakers being derived from their observations made on the adult in ordinary life. The importance of the subject was, however, duly estimated, and the absence of exaggeration in its treatment acknowledged

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We are especially anxious to avoid the charge of being medical alarmists. A respected contemporary has been in the habit of crying "wolf" so often, that the lips of the laity are apt to curl, when they read medical warnings. Even a scientific grandmother may grow too garrulous. But we have formed such a strong opinion as to the deleteriousness of the growing and insidious habit of inhaling cigarette smoke, that we must risk the sneers of the youthful reader. The perils of the studio, and the risks of paddling—the danger of dabbling in "oils" and water, as someone described it—are problematical, and could only have been discovered by an effort of genius, but anyone can convince himself of the reality of the effect of inhaling cigarette smoke on the organism. Of ordinary cigarette smoking we say nothing; we do not believe that smoking a dozen cigarettes a day, in the ordinary way, ever did a grown-up person any tangible harm. But inhaling the smoke is a very different thing. Let even the most inveterate smoker try this experiment, and he will be convinced. Let him smoke an ordinary Turkish cigarette while walking, and at some distance from a meal, inhaling the smoke well into the bronchial tubes. Then if, before he has finished his cigarette, he does not find his head grow dizzy, or his heart begin to thump, or his fingers tingle, we shall be quite ready to congratulate him on the possession of an exceptional organism. Whether the effect is due to an impression on the terminations of the vagus, or whether the active principle of the tobacco is absorbed, and carried straight to the heart in the blood-current, we shall not undertake to decide; we only describe the fact. The effect may be transient, but we do not think that an effect so often repeated, as it is in the case of the confirmed inhaler, can fail to exert a permanent injury

on the economy. We have said nothing of the direct effect of the smoke on the bronchial epithelium, but we are convinced, from practical experience, that it may, in cases predisposed to it, give rise to a state of chronic catarrh. The habit, no doubt, is very enticing, the question is whether it is worth its risks.

Sir William Gull has promised to read two papers at the International Congress at Copenhagen; one on "The Pathology of Renal Diseases," and the other on "Collective Research," on behalf of the Collective Research Committee of the British Medical Association.

The *Louisville Medical Journal*, of March 15th, reports that its senior editor, Dr. Lunsford Yandell, who was well and favourably known to many of our readers, died suddenly on March 12th. It is a curious circumstance, that after the week's journal had been made up, Dr. Yandell ordered that it should not go to press until he had communicated a leader, for which space was to be reserved. This delay enabled the space so left to be utilised in announcing his sudden death.

Professor Zoldt, of Prague, has received the call to Vienna, as Professor of Anatomy, but he will not enter upon the duties of the office until the winter session. It is expected that his supervision of the erection of the new Anatomical Institute will be of great advantage. Professor Auspitz, has been elected as the successor of Professor von Zeissl, on his retirement from the post of Primar-Arzt in the department of syphilis at the Vienna General Hospital.

Dr. Orme Dudfield's report on the health of Kensington for the month of February last shows a death-rate for that portion of the metropolis of 16·1 per 1,000, which was as much as 4·1 per 1,000 below the decennial average. During the same period the deaths from the principal diseases of the zymotic class were 26, or 4 below the decennial average, allowing for increase of population; those from diseases of the respiratory organs numbered 57, including 41 from bronchitis, and 11 from pneumonia. It may be inferred, therefore, Dr. Dudfield's remarks, that the state of the public health continues to be satisfactory. One very satisfactory item which appears in this report must not be allowed to pass unmentioned, namely, that every death which occurred was duly certified.

Dr. Emmerich, Assistant of the Munich Hygienic Institute, discovered in some of the filling-in under the floor of a prison in Amberg an extraordinary quantity of the characteristic capsular micrococci, which have been described by Friedländer as the micro-organisms of pneumonia, and which, on subsequent examination, were found to be identical with them. This appeared to explain the occurrence of a great epidemic of pneumonia, which took place at Amberg, in 1860, in which no less than 46 deaths occurred in 161 cases. The fungi were found under the floor in the sleeping-wards in which these patients had lain. In the wards of the prison, which were free of pneumonia, none of these peculiar micrococci have been as yet found.

OUR COUNCIL.

The General Medical Council have met and dispersed, possibly for the last time under the existing *régime*, and the natural question which will arise to anyone who takes an interest in their proceedings is, what have they done? Our esteemed contemporary, Mr. Punch, is in the habit, in his Essence of Parliament, of summing up the work of each day in as brief terms as possible. We will not say, as he often has to say, that the Session has been absolutely barren, that the business done is none, but in truth it amounts to very little, and that little not done wisely or too well. Putting aside the usual number of black sheep, the consideration of whose cases occupied much valuable time in the earlier meetings, the Medical Acts Amendment Bill, now before Parliament, and the Scottish Corporations Conjoint Scheme, have been the subjects chiefly under discussion during the Session. The approval of the latter was carried, after a good deal of opposition, by a narrow majority, and the Scheme will, we are told, come into operation next October. Its supporters contend that they have thereby rolled five examining bodies into one. But is this really the case? It does not seem so to us. The various Corporations included in it will still have the power of granting licences to a candidate possessed already of a single qualification; and we fail to see that the number of licensing bodies is reduced at all. The approval of this scheme, at the present moment, seems to us, as was pointed out by many of the speakers, extremely unwise. If the Bill, now before the Legislature, becomes law, the scheme will never come into effect: for the licensing powers of the bodies who have entered it will be taken away. If the Bill does not pass, it will be the duty of the Council to take the matter seriously in hand, and not to rest satisfied with half measures, like those entailed by such a scheme as this. The promoters of the English Conjoint Scheme were well advised, we think, in not asking the Council, as they seem to have contemplated doing on Tuesday morning, to approve of their scheme.

In resolving themselves into a Committee to consider the details of a portion of the Medical Bill, the Council, if possible, acted in a still more unwise manner, and, indeed, they would seem to have repented of the error of their ways, for on Wednesday they refused to resolve themselves again into Committee to continue the consideration of the provisions of the Bill. Whether this was due to the fact that the Irish members, having got all they wanted, would not assist the Scotch members in their desire to air their grievances, we need not stop to enquire; the fact remains as we have stated. That the only point in the Bill which the Council debated, dealt with a money question, is, as Dr. Lyons justly observed, one that will not redound to their credit, or be likely to tell in their favour with Parliament, and it is well that they contented themselves with advising the Corporations what to do, instead of passing any formal resolution on so delicate a matter as a question of finance. We have been told that the Bill is one originating in the London medical journals, and that it is not desired by the general body of the profession. On this latter state-

ment we need only make two observations. It is true that the profession have not, as a whole, made any stir, or expressed any decided opinion about this Bill, and for a good reason; it does not, in so far at any rate as its main provisions are concerned, affect them in the slightest degree; it is a Bill introduced to protect the public, and to secure in their interests that no man's name shall be entered on the Register, without better guarantees that he is fully competent, than are at present provided. And, in the second place, the medical profession are not prone to take interest in any questions relating to medical education, as is evidenced by their absolute apathy with regard to the doings of the General Medical Council itself. The number of medical men, or indeed of men of any sort or condition, who have, of their own free will, attended to listen to the words of wisdom that have fallen from the lips of members of the Council during the Session just concluded, might be counted on the fingers of one hand. This is a sufficiently conclusive argument, that the lack of interest taken in medical education by the profession affords no ground for opposing the Bill. If the members of the profession had attended the meetings of the Council in any numbers, they would have been amply satisfied of the need for some such legislation as the present Bill proposes to afford. We are told repeatedly, that it behoves Englishmen to be long-suffering with the Irish, but we are sure that not even the most reasonable and patient man can spend an afternoon in the gallery of the Medical Council room, and not go away longing to wipe out the obstructive Corporations and their representatives with a wet sponge, and start afresh with a clean slate. That is, we admit, an unstatesmanlike frame of mind, and perhaps it is as well that so few members of the profession expose themselves to it.

HOSPITAL OUT-PATIENT REFORM.

I.—From the Public Point of View.

The difficult and complicated problem, how best to administer medical assistance to the sick poor, is a constantly recurring topic of discussion, and one which still awaits a satisfactory solution. The condition of the out-door patient departments of our great metropolitan hospitals more especially demands the attention of the reformer, and the consideration of this question has recently received a fresh impulse on account of the action of one of the largest charitable institutions in London: the authorities of Guy's Hospital having instituted a system of small payments by the patients to assist in defraying the cost of the medicine supplied to them. The results of this experiment, initiated for the first time, will be watched with considerable interest by all those concerned in the matter. Necessity, we are informed, has at last compelled the adoption of a procedure which has for long been urged, on principles of policy, and although at first sentimental objections will doubtless be raised, the movement thus started by so leading an institution has a fair chance of ultimately becoming universal. Further evidence of the attention this question of out-patient management amongst the public and profession is attracting, is furnished by the fact that, on Wednesday week, the first evening meeting of the Hospitals' Association was entirely devoted to its consideration, and the universal conclusion arrived at on this occasion was that reform was urgently required, although there was some difference of opinion as to the best manner in which this was to be effected.

By those who have studied the subject, it is with justice maintained that the present gigantic and costly system of wholesale gratuitous medical charity is a great social and moral evil, injurious alike to the poor, the profession, and the community. It serves to pauperise and humiliate respectable working men, to unnecessarily expend the time and energies of the doctor without satisfaction or profit, and to drain the pockets of the charitable and benevolent. The general public has a right to demand that assistance rendered to the lower classes be utilised in the most efficient manner, that no abuses in the system be permitted, and that the greatest possible good be effected at a minimum cost. These requirements are all the more necessary since, owing to the increasing population, to the ever-repeated claims for medical assistance, and the augmented cost of maintenance, the available funds are quite inadequate to meet the demands made upon them, and even the charitably disposed are now so importuned that a reaction must inevitably ensue to the disadvantage of suffering humanity. Hence has arisen the question as to whether the present recipients of hospital relief should not be called upon to participate in the support of the institutions founded in their interests, and by payments suited to their circumstances, in some measure to assist in defraying the outlay made on their behalf. This, as a social principle, is sound, as it is only reasonable that the well-to-do working classes should contribute towards the maintenance of their health, as well as towards the other necessities of life. The great difficulty to be faced is the reformation of old standing customs, and this problem has for long occupied, and still occupies, the ingenuity of hospital politicians, and much time and labour have been expended on its solution. The most important attempt in this direction was the formation of a committee in 1870, under the presidency of Sir W. Fergusson, which was composed of the most eminent and experienced physicians, surgeons and philanthropists in the country. They, after a most exhaustive and searching enquiry, published a report, which, for the general information obtained, and the value of the conclusions arrived at, will well repay careful study. Before and since there has been much literature on the subject, and more especially an admirable series of letters in the *British Medical Journal* (1877–78), in which the whole question is discussed in a complete and temperate manner. More recently the "Report on Hospital Management," edited by J. L. Clifford-Smith (1883), brings information on the entire subject up to the present time.

It may be admitted that the present system of indoor-patient administration works, upon the whole, in a satisfactory manner. The class of persons who enter a hospital are, as a rule, in comparatively indigent circumstances, due to their inability to work; and from the

serious nature of their complaints are deserving of charitable care and protection. With out-patients the case is very different, and on this subject the committee of 1870 came to the following conclusions :—(1) That the large majority of those who apply for relief at the metropolitan hospitals are the subjects of such trivial complaints as not to require any special skill in their treatment, and as such are, therefore, not suitable cases to occupy the time and attention of consulting physicians, but essentially come under the province of the general practitioner. (2) That the greater proportion of these individuals are in receipt of such wages as should enable them by small payments, according to their means, to accumulate in the aggregate such sums as would not only defray the expenses of their treatment, but would partly remunerate the medical man for work performed. The soundness of this double principle, namely, that, on the one hand, the theoretically special ability of the physician should not be employed in doing unskilled work, and, on the other, that well-to-do persons should contribute towards the allieviation of those minor maladies which do not influence the income of the bread winner, led the committee to propose the following resolutions :—Seeing that the actual pauper is already provided for by the State, all those who do not come under this category, yet who are unable to afford the ordinary scale of professional charges, should, by joining dispensaries on the provident system, provide themselves with paid medical attendance, which they would do at a minimum cost to themselves. It was further suggested, that these dispensaries should be affiliated with the hospitals, so that such cases as presented features of special interest, difficulty, or severity, might be drafted there, either to be attended to by the assistant staff, or to be admitted into the wards of the institution. Such a system, it was maintained, would augment the independence of the working classes, would remunerate the profession, would relieve the physician of unnecessary labour, and thus facilitate his powers of usefulness, would provide skilled consultations for the poor, and, finally, would be the means of devoting a large proportion of the funds derived from the charitable to other and more urgent purposes. These admirable propositions, although presented to the public some thirteen years ago, have, unfortunately, as yet been followed by no results of any importance. It is true, that certain provident dispensaries have been established, and many of these have proved successful even under the present adverse circumstances, but it is impossible that they can flourish on a large scale, when all the leading hospitals open their doors to any one who chooses to apply, and give to all out-patients of whatever kind and degree gratuitous advice and medicine. Hence, we believe that the movement initiated at the East End of London is a step in the right direction, and we trust that the example will soon be largely followed. It is scarcely to be hoped that the authorities of all existing institutions will unanimously overthrow all their cherished traditions and customs, and at once adopt a system of affiliation with outside provident dispensaries; at the same time the pressure for funds, and the abuses of the present system, must ultimately compel them to adopt some such measure. While waiting for this desirable consummation, the next best step is the formation of a dispensary at the hospital itself, after the manner already attempted at Guy's. If all patients were required to pay a few pence for their medicine, which we have satisfied ourselves would, with very few exceptions, be cheerfully complied with, a sum of money would be realised which would not only defray all the expenses of the out-door department, but would enable an honorarium to be given to casualty physicians, whose duty would be not only to attend to the applicants, but to select from them those who, from special circumstances, were suitable for the diagnosis, treatment, or teaching purposes of the hospital staff. Some such system, we are convinced, would be greatly to the advantage of all parties concerned. The patients with minor ailments would for a small payment obtain all that was requisite for their necessities, and those with serious disease would have gratuitous advice from the consulting physician, who, if necessary, would draft them into the wards. The casualty medical officer, if his work was unpalatable and mere routine, would at least in some measure be paid for his services; the physicians, on the other hand, would have the advantage of selected cases, with leisure for their observation and clinical demonstration. The general practitioner would in no way suffer, as by this means it is obvious that the competition with him would be diminished. The hospital would have money for other purposes, and the general subscribing public would have fewer demands made on its benevolence. With the possibility of effecting such improvements on the present unsatisfactory system of out-patient administration, it is to be hoped that the managers of our hospitals will, before long, see their way to take steps for its reformation.

REVIEWS AND NOTICES OF BOOKS.

MEDICAL WORTHIES AND OTHERS.[1]

The world knows nothing of its greatest doctors, and the profession itself knows about as much. The medical men whose names are most familiar in their lifetime, to all outside a very limited circle, are, with a few exceptions, not the men who are the greatest, but the men who are the most skilful in advertising themselves. Ask a country clergyman whom he considers to be the leaders of the medical profession, and he will mention names of men, whose only title to leadership is their own belief in their claim and fitness for that office. And if our best men are little known beyond their own circle in their lifetime, death, too, with us is robbed of its revenges. An artist, a poet, a writer, or lawyer dies, and however little he may have been prized in his life, the papers at once ring with his praises, the picture galleries are lined with his canvasses, his biography is in all the circulating libraries. No great soldier, or statesman, or civil servant passes

[1] "The Gold-headed Cane," edited by William Munk, M.D., F.S.A., London, Longmans, Green and Co., 1884.
"Memorials of John Flint South," collected by the Rev. C. L. Feltoe, M.A., London, John Murray, 1884.
"Gallerie berühmter Kliniker und hervorragender Aerzte unserer Zeit," von Dr. J. Hirschfeld. Zweite Auflage. Wien, Moritz Perles. 1880, 1882.

away, but some bookmaker is found to think the story of his life worth telling, and eager readers to think it worth reading. And yet we have had, and still have, in our midst men whose career and whose individuality are as worthy of the writer's and reader's attention as any of the great men who have graced other professions. But so far, few of them have found any biographer, and the general reader remains absolutely, and the professional reader relatively, ignorant of the work and character of the men who have raised, and are raising the practice of medicine out of superstitious empiricism into the region of reason and science. For the professional reader's want of curiosity in this matter there is some excuse. He is naturally and laudably more interested in things than in men, he attaches more importance to discoveries than to discoverers, and the whole character of his training and pursuits tends to dry up that love of personal gossip, which is the distinguishing feature of idle and inferior minds. But we do not quite understand why the general reader is so little interested in the life and work of our best men, and cannot but think that if they were put before him vividly and readably in a series of medical biographies, they would be read with interest by as large a circle, and would, perhaps, serve as high an educational purpose as the many lives of chancellors, authors, and statesmen, that are now so popular.

In the three publications which we have grouped together as the text of this article, an attempt is made in some small measure to supply this manifest desideratum. "The Gold-headed Cane" gives us highly interesting accounts of many London physicians long deceased. The "Memorials of Mr. South," besides conveying to us a picture—vivid and truthful, because drawn by himself—of one of the most lovable and high-minded men who ever bore sway in Lincoln's-Inn-Fields, gives us incidentally vignettes of most of the great surgeons of the earlier part of this century, drawn with a faithfulness and happiness of expression that remind one, except in the charity of their judgments, of Carlyle's more acrid sketches of his contemporaries. The "Gallerie berühmter Kliniker," on the other hand, taking us farther away in the matter of space, but less far in point of time, gives short biographies, with portraits, of the men who have made the fame of German medicine, and especially of the Vienna School. Since the early parts of the first edition of the "Gallerie" appeared, some ten years ago, more than one of the originals of its portraits have passed away, including the great names of Skoda and Rokitansky; but the majority are still continuing their active labours, and it is highly interesting to read by what steps and with what efforts they have climbed—often from a lowly starting point—to their present honourable position. The "Gallerie" has met with a considerable sale in Germany, and we doubt not that an enterprising publisher would find that a similar gallery of English medical worthies would attain an equal measure of success.

Returning to the volumes in which English worthies are depicted, we must, for literary excellence, give the precedence to Mr. Feltoe's book. As, however, it mainly consists of an autobiography, this credit is due to Mr. South himself. The autobiography deals only with the first twenty-six years of Mr. South's life, and ends abruptly with his appointment as demonstrator of anatomy at St. Thomas's Hospital. The remaining fifty-nine years of his life are told briefly, and rather baldly, by Mr. Feltoe, in little over twenty pages. The autobiography is charmingly written, and is readable from the first page to the last. Its interest for the thoughtful reader, however, will be chiefly in the picture which Mr. South unconsciously gives of his own character. He was evidently a man of a very highly strung organisation, both morally and physically, if the two mean not the same thing. Dr. Clifford Allbutt would have classed him as a typical neurotic, and would have found abundant support for so classing him in Mr. South's vivid description of a serious illness of his, marked by neurotic symptoms, which would now be properly interpreted, but which then appeared so serious to his attendant that they were promptly treated by repeated cuppings and blisterings, and a course of antimony and calomel. As a describer of others, Mr South appears to have been more remarkable for a keen power of observing externals, than for insight into what lay below. His pictures of his contemporaries, and notably of Astley Cooper, Henry Cline, and Abernethy, are terse and incisive, and seem to bring the very men before one, but he makes no attempts to pourtray their minds and characters. Probably, however, he gained in precision what he missed in depth, and, at any rate, it was this very precision which made his work as a surgeon, as a college official, and, lastly, as a writer of his own life, so admirable. Mr. Feltoe, we may add, has done his editor's work unexceptionably, and there are next to no blunders. By Sir Edward Home, on page 42, we presume Sir Everard is meant.

Dr. Munk's book is less satisfactory. Following Dr. Macmichael, who wrote the first five chapters, he has unfortunately adopted a worn-out and futile device, which is only workable in the hands of the literary expert. Unity may seem to be secured by making a gold-headed cane one's stalking horse, but unless the writer can reduce himself to the level of the cane, naturalness and congruity are sacrificed. This apart, the book is interesting enough; it gives accounts of nearly all the great physicians of the last and of the first fifty years of the present century, and though many of the anecdotes are amongst the stalest, the book, we think, will prove of interest both to the ordinary and to the medical reader. As in Mr. Feltoe's volume, we do not get any insight into the characters of the physicians described, and happily so, perhaps, in the case of some of them, for there are "unworthies," or "not worthies," as well as "worthies," described in both of these volumes. But medical biography, to be worthy of the name, must deal with its subjects philosophically, trying to gain a sympathetic insight into their minds, and showing wherein the value of their work consisted. Only on that understanding is it really worth doing. Neither of the present volumes, therefore, fills the gap we have complained of in the beginning of this article, but both will be found useful by, and will lighten the labours of, the future biographer of great doctors, if he ever

appears. We may add that Dr. Munk's volume is also carefully edited. If this were a society journal we should have to pull him up for writing Burleigh-on-the-Hill (p. 75), and inform him that Mr. Finch's "place," near Oakham, is spelt "Burley," and Lord Exeter's "place," near Stamford, "Burghley," but neither of them is ever now written "Burleigh."

Sound Bodies for our Boys and Girls; by WILLIAM BLAIKIE. With illustrations. London: Sampson Low, Marston & Co. — We heartily recommend this little book to our readers, they will find it useful not only for the instruction of their own children, but also for benefiting their patients, both children and adults. All medical men recognise the desirability of encouraging the physical development of the human body, but, as a rule, there are many difficulties in the way of carrying out ordinary plans of gymnastic exercise. To send children to a public gymnasium is generally expensive, and not always convenient. The same objections may be raised to the establishment of a private gymnasium, and consequently it is comparatively seldom that any steps are taken to ensure due exercise of the body. The book before us shows in the plainest and most practical manner how every part of the body may be efficiently exercised with the most simple apparatus; in fact, how almost every muscle may be worked without any apparatus at all. Moreover, the lessons are so arranged that the body is very gradually brought into working order, and if the instructions are carefully followed (and they are very lucid), no straining of any part of the body can occur. This little book ought to have a very large circulation.

How to arrest Infectious Diseases; by EDGAR BARNES, M.D. London: J. & A. Churchill.—The author, a medical officer of health, appears well qualified to deal with this subject; though apparently so simple, it is not always easy for a medical man to give terse instructions, when asked by his patients as to the steps which are necessary to stamp out infection or to prevent its spread. In the little work before us will be found plain directions on various points connected with infectious disease and its treatment; also something about disinfectants and how to use them. The language is simple, and the book on that account will be found very useful to the lay public, to whom we can cordially commend it.

Baldness and Greyness: their Ætiology, Pathology, and Treatment; by TOM ROBINSON, M.D. Henry Kimpton. Second Edition.—The work before us is a strange medley of anatomy, pathology, anecdotes, and extracts from classic and other authors. It indicates considerable research of a semi-antiquarian order, and its author has evidently bestowed some pains on its compilation. It is written, we are told, for "the student"; but, as "all pathological and descriptive details" have been curtailed, we fear it will not be of much use for scientific purposes.

The Teeth: their Formation, Diseases, and Treatment; by THOMAS GADDES, L.D.S. Eng. David Bogue.—This author candidly tells us that his "little work has been written for the public." It is on the same plan as, though it does not form part of, the series of "Health Primers," published by the same firm. It is freely illustrated, and contains much useful information concerning a set of organs, often too much neglected, on which our health and comfort nevertheless are largely dependent.

On Malpositions of the Kidney; by DAVID NEWMAN, M.B.—This is a thesis for the degree of M.D. of the University of Glasgow; it appears as a reprint, having been first published in the *Glasgow Medical Journal*. The author discusses his subject under three chief headings—simple misplacement without mobility, movable, and floating kidney. He adds an appendix of cases, and a full bibliography. The little work will be found a very useful and reliable summary of what is known concerning these subjects.

ABSTRACTS AND EXTRACTS.

A TYPICAL NEUROTIC.

In the life of the late Mr. South, which has been recently published by Mr. Murray, and which is reviewed in another column, there occurs (p. 135) a vivid description from Mr. South's pen of an illness with which he was seized in 1822, being then 25 years of age. He had been working very hard, he tells us, being every day six or seven hours in the dissecting-room, and in the evenings occupying himself with examining his pupils, or sitting up very late at night writing and drinking half a score cups of tea. In the midst of this work he was unexpectedly brought to a stand by illness.

"On the evening of March 21st, 1822, I had gone to bed rather earlier than usual, and had been asleep, I presume, about an hour, when I was aroused by seeing over me a gigantic hand and dagger held over my chest. Everything else in the room I saw distinctly, as it really was. . . . As might be supposed, I was horribly terrified, as I was lying on my back and utterly incapable of moving so as to escape the object of my alarm. At last, however, I managed to change my position, the spectre ceased, and, at the same time, I threw up a mouthful of the most acid fluid, which I can only compare to vitriol. I was very much agitated for some time. . . . . Next morning I was very ill; had a cobwebby sensation over the left side of my face, and a most curious feeling about the hinder upper part of the left parietal bone, as if my brain were being continually scratched with finger nails, in a space about as big as a crown piece. I do not recollect whether I had any headache, or what the state of my pulse was, but Dr. Cholmeley, who soon came to me, ordered me to be cupped on the scalp and blistered, and I think I was also cupped in the nape two or three times in the course of a few days and blistered, besides taking calomel and antimony, but not to produce ptyalism. In the course of the week the scratching sensation was relieved, but did not subside. I was soon after attacked with numbness, first of one leg and foot, and then of the other, so that I seemed at these times to be walking with my foot in a pillow. My hands would also become alternately numb in like manner, and in the space between the right thumb and fore-finger I had the sensation of a very hot iron resting on it, which sometimes was positively painful. Excepting the scratching in my brain, which continued for some weeks incessant and more or less severe, and the cobwebby feeling, which was not constant, but always restricted to the left side of my face, the numbness in my feet and hands alternated in a very strange manner. Sometimes my foot on one side alone was numb, sometimes the hand on the same side would be numb at the same time, or would be numb alone; at other times my right hand and my left foot would become numb, and then, again, the left hand and the right foot; and these sensations would last a day or two, but without any regularity. But the most persistent was the burning sensation, which was always confined to the right hand. These sensations, at very uncertain periods, continued with me for many years, and were always attendant on any digestive derangement. There was, however, only this exception, that the scratching subsided entirely after two or three years. The severity of this first attack began to diminish about three weeks or a month from its onset, and at the end of six weeks it was thought advisable I should go into the country, and the day was fixed, but on the previous evening, as I was quietly lying reading on the sofa, I was suddenly seized with violent palpitation of my heart, which being the first time I had felt it, terrified me so much, and was so distressing that I thought I was about to die immediately. The choking sensation and the violent irregularity of my heart, as if it were being wrung out of place, was most terrific, though I had often witnessed the same condition in my dear father, who for years had been subject to palpitation, always accompanied by severe and continued eructation for two, three, or more hours. After an

hour or two the severity of the attack subsided, but my pulse was very irregular, and for two or three days the least exertion, such as merely walking across the room, brought on the palpitation, and for some time I was obliged to lay hold of chairs or anything else at hand, as I had a terrible dread of falling to the ground. [After this Mr. South went to stay in the country, and his health slowly improved.] The palpitations did not cease, although they became less severe. But in reference to them was a circumstance which I could not explain. Whilst I was on horseback and trotting about, I had not any palpitation, and felt tolerably well, but directly I put my foot to the ground the palpitation recurred."

SURGERY.

Extirpation of Larynx.—A case of successful removal of the whole larynx for carcinoma is reported in the *Berliner Klininische Wochenschrift*, No. 5, 1884. The patient was a man of 72, with a good previous and family history. Having suffered from hoarseness for two years, he had become rapidly worse until the voice had been completely lost, the aphonia being quickly followed by dyspnœa and dysphagia. Pain in the ears and the back of the head was almost continuous. The lumen of the larynx was found to be almost completely obstructed by a tumour with an ulcerated surface. Immediate tracheotomy gave relief to the dyspnœa, and by means of a Michael's tampon, the inspiration of portions of the disintegrating tumour was prevented. Owing to the increasing difficulty of taking food by the œsophagus, the larynx was freely removed, a portion of œsophageal tissue attacked by the growth having to be taken with it. A hollow bougie was then fixed in the gullet, the trachea being still effectually guarded by the tampon. The wound was left open, but dressed antiseptically with sublimate gauze. The shock of the operation appears to have been trivial, the patient was allowed to get up in five days. Gradual advance from fluids to soft solid food was made without difficulty. The Michael's tampon gave pain on the fifth day, and was removed, its place being taken by a simple plug of sublimate gauze. The patient did well for four months, and then died from an attack of croupous pneumonia. The artificial larynx of Bruns, with Gussenbauer's voice canula, was worn with ease, and the patient was enabled to speak "loud and distinctly." It is to be regretted that no mention is made either of the microscopic character of the growth, or of any *post-mortem* examination of the whole body.

Management of Patients during Capital Operations.—In a paper read at the Boston Society for Medical Improvements (*Boston Medical Journal*, October 11th), Dr. Gay, of the Boston City Hospital, after narrating some cases, observed that it is generally believed that under the use of anæsthetics time is of little consequence in capital operations; but his own experience had taught him that the more quickly the operation is completed and the patient allowed to rally from the effect of the anæsthetic, the less will be the subsequent shock and exhaustion. This is especially noticeable in children, in whom a temporary collapse is not uncommon after a severe or a prolonged operation. There can be no doubt that a long operation is debilitating to the nervous system, even when it is done without pain and without the loss of much blood. Dr. Gay is also of opinion that while the primary effects of sulphuric ether are stimulating, the ultimate result is depressing, especially in persons prostrated by injury or disease. Another point he puts is that the pain experienced in the later stages of an operation is not detrimental, and that an opiate given before the operation tends to allay suffering and produces quiet; while the pain is less severe towards the close than at the commencement of an operation, as is seen during the imperfect anæsthesia which may have to be maintained in operations about the face. For these reasons, Dr. Gay removes the anæsthetic at a much earlier stage than is customary, and, as he believes, with beneficial result. He thinks that special attention should be paid to the following particulars while executing capital operations: 1. If shock or collapse be present, put nothing into the stomach, but stimulate by the skin and rectum. 2. Take pains to keep the patient warm by heaters, blankets, and a rubber sheet. 3. Disturb him as little as possible with examinations, moving, changing of clothes, dressings, &c. 4. Use the least possible quantity of the anæsthetic, and allow the patient to rally early, depending upon opiates to control subsequent pain and inquietude. 5. Finish the operation as quickly as compatible with its proper performance. 6. Get the patient into a warm bed as soon as possible, and without any exposure to cold. 7. Preserve the utmost quiet, and avoid doing too much for the patient until fair reaction has taken place.

A New Œsophagotome.—In the course of a paper on the "Value of Internal Œsophagotomy in the Treament of Cicatricial Stricture," published in the *New York Medical Journal*, Dr. H. B. Sands describes a new form of instrument which he has devised and used successfully. "The most difficult problem connected with the operation is that of exactly regulating the depth of the incision. I believe that this can be done only distending the stricture at the time when the knife is applied to it." The shank of the instrument is fifteen and a half inches long, and four millimetres in diameter, and consists of a flexible tube, made of narrow spiral steel plate—thus combining strength and flexibility—secured within by two pieces of fine wire, in order to prevent stretching or separation of the spiral coil. The instrument is provided with a number of steel bulbs, each bulb being furnished with a corresponding knife-blade. The bulb is screwed to the distal end of the shank, and the knife is attached to an inner flexible steel rod, manipulated by a thumb-screw at the proximal end of the instrument. By turning this screw the knife is drawn out from its concealed position within the bulb, the back of the blade sliding over a firm inclined plane. An index on a dial-plate indicates the amount of projection of the blade, the maximum projection being 2·5 millimetres. A small sliding ring on the spiral tube is used to indicate the distance of the stricture from the incisor teeth. The bulb being conical, the operator can readily perceive when it comes in contact with the stricture, before he projects the blade. In operating, a bulb must be employed which exactly fits the stricture; the depth of the incision will then just equal the distance to which the blade is projected by the action of the screw in the handle.

Extraction of a Leech from the Glottis.—M. Nepveu reported to the Paris Société de Chirurgie on the narration of a case forwarded by a military surgeon from Algeria. A robust Arab presented himself at the hospital, stating that for a fortnight past he had had a leech in his throat, which caused him to spit blood every ten minutes, and induced dysphagia, and a violent cough without much dyspnœa. On examination with the laryngoscope, the leech was observed to stretch from the summit of the arytænoid cartilage to the base of the epiglottis, leaving, however, the glottis pretty free. It was extracted living, by means of the Cusco forceps, and all the symptoms soon disappeared. M. Nepveu refers to six other cases which are on record, in two of which the patients died from suffocation before interference could take place. In one case Desault performed laryngotomy, and extracted the leech forty-six days after the symptoms had commenced. In another case laryngotomy was also required, while in two others the leech was removed by the forceps.

Skin-Grafting.—The material which is removed from the sides of a ruptured perinæum, when they are vivified preparatory to uniting them, makes the best skin-grafts to be obtained from any source. Being half skin and half mucous membrane, they are peculiarly adapted to the purpose; and a far larger proportion of the grafts will "take" when this material is used.—*New York Medical Journal*, January 19th.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 28TH, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

Cases of Enteric Fever associated with Rheumatism.

DR. FINLAY read notes of five cases, the first of which may be taken as a type of the whole. The patient was a man, aged 24, a porter by occupation, admitted under his care into the Middlesex Hospital for acute rheumatism on October 1st, 1883. There was a strong family history of rheumatism, and the man himself had had one severe and several slight previous attacks. For a week before admission he had complained of pain, redness and swelling in the ankles, knees, and hips, the ankles being still affected on admission. His pulse was then 88; temperature 101·4°; tongue slightly coated, and there was a systolic murmur audible over the præcordium. The evening temperature on the day of admission was 103·4° Treatment consisted of salicylate of soda in 15-grain doses, with cotton-wool to the painful joints, under which he rapidly improved. His temperature became normal on October 5th, when he was also free from pain; and he appeared quite convalescent and was allowed to get up on the 13th. He continued to improve till the 19th, when he complained of stiffness in the back, and headache, and his evening temperature was found to be 102·6°. Next evening it was 104·2°, and from this time onwards the case presented the usual features of one of enteric fever. Rose-coloured spots were observed on the 25th and following days; diarrhœa set in on the 28th; and on the 29th perforation took place; and he died on the 31st. At the *post mortem* there was found general peritonitis, the result of a perforation through the lower part of the ileum. Two principal ulcers were found in the small intestine, one that had perforated, free from slough and with undermined edges; the other, with clean granulating base, to which the edges were adherent, clearly of more remote formation than the former. In order to establish the diagnosis of rheumatism, attention was drawn to the redness, swelling, and pain in the joints, the sour sweating, the endocardial murmur, and the history of previous attacks. As to the enteric fever, it appeared probable that it and the rheumatic attacks were co-existent on the man's admission to the hospital, the former being so slight as to be completely overshadowed by the rheumatic manifestations. The fatal attack was, therefore, a relapse; and this was attested by the different ages of the ulcers in the ileum, and by the course of the temperature. Of the four other cases, one, which was fatal, presented very similar features, the fatal result here being also due to perforation of the bowel, which occurred during a relapse. The remaining three presented no special features except the fact of enteric fever following upon an attack of rheumatism Notwithstanding the fact that no mention was made, even in recent writings, of the occasional association of these two diseases, such association did not seem to be very infrequent. In connection with this view, it was a point of some interest that of seven patients in whom enteric fever became developed in the wards of the Middlesex Hospital over a series of years, five were admitted for rheumatism. Such cases as those recorded suggested the enquiry whether there existed a more than casual connection between rheumatism and enteric fever—an attack of one predisposing to an attack of the other. As regarded the fatal cases, the question arose whether the allowing of solid food after the rheumatic attack passed off was in any degree responsible for the death by perforation. Two practical points seemed to be deducible from such cases: first, that as solid food might increase the danger of perforation in enteric fever, cases of rheumatism occurring in the course of an epidemic of enteric fever deserved a more than usually narrow scrutiny, lest they should turn out to be something more than rheumatism merely; and, second, that if any close connection between the two diseases, such as that hinted at, should be found to exist, rheumatic cases should not be placed in close proximity to cases of enteric fever. Although the facts were insufficient to prove a predisposition, they at least suggested a case for further enquiry.

The PRESIDENT asked whether Dr. Finlay's contention was that the diseases coincided, or whether they followed each other. He also asked Dr. Finlay whether he had considered the possibility that the rheumatic symptoms were only manifestations of the enteric fever.

Dr. FINLAY said that in his first case, the two diseases were certainly coincident, he did not think the second suggestion of the President's could be accepted.

Dr. DOUGLAS POWELL would have put the same question about the diseases being coincident. He had seen three cases which bore on the subject. The first was that of a lady, aged 40, who had previously suffered from rheumatism, and whom he saw on the fifteenth day of her illness, which had begun with rheumatic symptoms, on account of a supposed heart complication. The patient had many symptoms of typhoid fever, and on the twenty-first day some spots were seen, after a fall, for a few days, the temperature rose again, and the stools became typhoid-like. On the forty-second day there was hæmorrhage, and on the fifty-fourth day, a relapse of the rheumatic symptoms. The second case was that of a lady who, twelve days after being exposed to sewer gas, was seized with headache, and malaise; five days later, there was joint affection, and the next day pericarditis; five days after this, she had pneumonia, and slight albuminuria. Two days later, the abdomen was swollen, the motions were loose, and tinged with blood, and the symptoms were those of typhoid. Death occurred in six days, the diagnosis having been confirmed by Sir W. Jenner two days previously. The third patient was a woman, admitted into the Middlesex Hospital on the fourteenth day of her illness, which had been considered in the first instance to be rheumatism, but spots appeared, and the motions were loose, she was convalescent on the twenty-seventh day. In his cases the rheumatic and typhoid symptoms were blended, and there was no break between them, as was the case in Dr. Finlay's patients. In his first patient, the rheumatic symptoms had developed during the prodromal stage of typhoid. He did not think that such cases could have been overlooked if they had formerly existed.

Dr. DE HAVILLAND HALL had seen a similar case, where there was no interval between the symptoms of rheumatism and those of typhoid. A girl, twelve years old, had a sharp attack of rheumatism, with endocarditis, followed by a typical attack of typhoid fever. The rheumatism in these cases differed from that seen with scarlatina, in that it preceded, instead of following, the other malady.

Dr. POWELL alluded to a case where the rheumatism occurred at the end of a typhoid fever.

Dr. O'CONNOR thought the association of these two diseases was by no means rare.

Dr. SEYMOUR TAYLOR thought that the question was, whether the typhoid was a coincidence, or whether it attacked people who had had rheumatism previously.

The PRESIDENT said that such cases were not unknown to practitioners of large experience, and they were of much interest. The first question that suggested itself was what was the character and duration of the prodromal period of typhoid? In his own experience it often lasted as long as six weeks, and there might be diphtheritic, rheumatic, &c. symptoms, during it. Secondly, did rheumatism predispose to typhoid? Thirdly, were they diseases of close kinship?

And lastly, did the rheumatic symptoms sometimes precede and sometimes follow the typhoid? As to the point hinted at by Dr. Powell, he had no doubt that there were new diseases, as well as complications of old ones.

Dr. FINLAY, in reply, said that in his cases there had been a complete break between the two diseases, some being absolutely convalescent in the interval. In all but one of them the enteric fever followed the rheumatism.

Case of Dislocation backwards of the First Lumbar Vertebra which was successfully reduced under Ether.

Mr. N. DAVIES COLLEY read the account of this case.—A shipwright, aged 55, was stooping at his work when a mass of iron, weighing seven cwt., fell upon the small of his back. He was at once admitted into Guy's Hospital. He was collapsed, but quite sensible. The spine of the first lumbar was three-quarters to one inch behind that of the last dorsal vertebra. The adjacent spines were even, and formed a continuous series, those above at a level considerably anterior to those below. There was no movement nor crepitus to be detected upon gentle manipulation. He could move his legs, but the right somewhat less than the left. There was impairment of sensation on the outer side of the right leg, and complete loss upon the dorsum of the right foot. Soon after admission, extension was applied under ether. Mr. Davies Colley kept his hand upon the prominence, while three assistants made traction upon the legs. The projection was thus gradually reduced without any jerk; at the same time some crepitus and movement could be felt in the last dorsal spine. A plaster of Paris jacket, similar to the laminated form recommended by Mr. Furneaux Jordan, was applied in the horizontal position, while traction was still being made upon his legs. When he recovered consciousness he was quite comfortable. A more careful examination, two days later, showed that the right musculo-cutaneous nerve was completely paralysed, and there was some loss of sensation between the first and second toes, where they were supplied by the anterior tibial nerve. For ten days he was unable to micturate, and some small bed-sores formed over the sacrum, although, within two days of the accident he could turn over in bed and lie upon his side. On the thirty-fourth day after the accident the splint was removed. The line of the spine was then quite even. There was no deformity, and little, if any, tenderness. In less than two months after the accident he was able to walk, but he was still unable to evert his right foot. With the help of Faradisation he gradually recovered power and sensation, and when he was last seen, in October, no difference could be detected between the movements of the two legs, and the only abnormality in sensation was a slight numbness in the middle third of the outer side of the right leg.

Mr. BRYANT, after remarking on the great interest of the case just related, said that the practice therein recommended was not sufficiently recognised. He had seen three cases of supposed fracture of the spine in the practice of his colleagues benefited by extension, and had had two cases under his own care where the treatment had been adopted successfully. One of these was that of a man, aged 74, who was brought to the hospital an hour after a heavy sack had fallen on to the nape of his neck. There was paralysis from the nipple level downwards, no loss of sensation, slight priapism, and great pain in the right half of his body. There was projection of the third dorsal vertebra, with swelling around, and some separation of the spinous processes; there was also fracture of the sternum. Extension was applied, a sudden jerk was distinctly felt, and was audible to the bystanders; the deformity was completely relieved, and so was the pain which had been extreme. The next day some movement of the toes and of one foot was possible, but on the following day the anæsthesia had increased, and was complete the day after, and he died from respiratory troubles on the seventh day. The examination confirmed the diagnosis of dislocation of the third dorsal vertebra, which was found to have been completely reduced, there was some extravasation of blood into the spinal cord, but not enough to have produced permanent disorganisation, and had the patient been younger he might have made a complete recovery. He wished to advocate very strongly the treatment of such cases by extension.

Mr. HOWARD MARSH referred to a case of Mr. Willett's at St. Bartholomew's Hospital, wherein there was dislocation of one of the lower dorsal vertebræ, extension had brought about replacement, and after death the dislocation was proved to have been completely reduced, but he could give no details.

Mr. DURHAM had seen the case throughout, and congratulated Mr. Colley on the result. He did not now regard these cases as so hopeless as he was taught to in former days. He thought that there was some danger in the use of plaster of Paris jackets in these cases, except in the late stages, on account of the risk of producing sores which would be unrecognised and inaccessible.

Mr. DAVIES COLLEY agreed that the jacket would be objectionable, if with a fracture of a dorsal vertebra there was loss of sensation below the umbilicus.

Supra-orbital Neuralgia treated by Trephining.

Mr. DURHAM described this case. The patient was a horse-keeper who had always enjoyed good health, until knocked down by a horse and kicked on the forehead. The wound healed readily, and there was a sense of pricking in the scar afterwards. Some months later he was thrown out of a cart, and from that time had suffered from pain starting from the scar. He had never had syphilis. An immense number of drugs had been tried, but without avail. The pain was brought on very readily, almost any cause led to an exacerbation, the pain started internally to the scar which appeared healthy, it was doubtful if there was any swelling of the bone. He cut down upon and removed a portion of the supra-orbital nerve, stretching both the ends thoroughly, the pain returned one day later. In six weeks time he operated again, dissecting out and cutting away many of the branches of the nerve and pulling on their ends. The pain was not relieved, and the patient then fixed on a spot in the bone as the seat of the pain. A month later he was trephined at this spot, a piece of bone, an inch in diameter, being removed; there was no thickening of the bone. and no sign of past inflammation or suppuration or fracture; there was a little depression on the inner surface of the bone, but nothing had been noticed to have occupied this region during the operation. Since the operation there had been no recurrence of the pain, and his recovery was complete. It would have been more satisfactory if the cause of the pain had been recognised; he was inclined to class the case as belonging to "osteitis neuralgica," but in that affection the long bones were the ones that usually suffered, and they were almost always thickened or indurated, sometimes even eburnated. The little pit to which he had drawn attention was such as was commonly seen in adult skulls. He had no wish in bringing this case forward, to be understood to advocate this treatment in ordinary cases.

Mr. WALSHAM mentioned a case of Mr. Langton's, where a young woman, aged 22, had constant pain for two years after a compound fracture of the skull; she was trephined; some diseased bone being found, and made a complete recovery. In a paper in the St. Bartholomew's Reports he had collected 700 cases of trephining, of which thirty were for neuralgia, half of them attributed to a blow, the others having no causes assigned. In two-thirds there had been no return of pain after the operation; in only five had death occurred, and was not in them due to the trephining. In the majority the cause was disease of the bone, in ten no cause was found, in two a small granulation was

removed. In these cases we had to ask if the pain should be attributed to the injury, and if so where should the trephine be applied. He quoted two cases, one a young woman who had had a fall, and had a small swelling on the frontal bone, near the suture. Was the pain hysterical, or was it due to a possible exostosis on the inner plate? The other patient was an engine driver, who had an accident to the back of his head, and suffered from constant pain in the occiput. It was difficult to say where the trephine ought to be applied.

Living Specimens.

Dr. Willcocks.—A case of paralysis of the fourth and fifth (motor and sensory branches) cranial nerves, with a history of syphilis.

Dr. Seymour Taylor.—A man with dilated superficial veins over the front of his thorax, probably due to intra-thoracic aneurysm.

Mr. Bernard Roth.—A girl, aged sixteen, with lateral curvature illustrating the bad influence of dress on this condition.

Mr. Edmund Owen.—Artificial teeth swallowed, and passed *per anum* on the sixth day.

PATHOLOGICAL SOCIETY OF LONDON,

Tuesday, April 1st, 1884.

J. Whitaker Hulke, F.R.S., President, in the Chair.

Juvenile Osteo-malacia.

Mr. Davies Colley said the patient from whom the specimen was obtained, was a girl, aged thirteen, who had been under observation two years. She was the third out of four. The mother was a laundress, and the father having died some years previously; they were badly off, and lived in a cellar. She was healthy up to nine years of age, but walked with a waddling gait. She went away to school, suffered much from chilblains, then her knees began to bend in, and she broke her humerus. Later she broke one femur. On admission she was very tender about the tibiæ, they were very flexible, and could be dented on pressure. Later the lower jaw at both angles, and could be dented, there was a suspicion of fracture of the jaw. The bicuspid teeth became loose. The urine showed triple phosphates and pus corpuscles. On quantitative examination phosphoric acid was deficient, calcium in excess. Death from phosphatic calculi in kidneys and suppurative pyelitis. The head was much enlarged, upper extremities very much twisted, lower extremities less so. There was no pigeon breast, it was broad, barrel-shaped, the abdomen was considerably distended. At the *post-mortem*, excepting pyelitis, &c., the viscera were healthy. The bones showed two kinds of change, some were hypertrophied and dense, others brittle, rough, and light. The skull was dense, showed no diploe, and no appearance of outer and inner tables, at one or two points it was soft on outer side. Lower jaw thick, not quite so dense but very hard. Vertebræ were somewhat swollen and there was lateral curvature. The pelvis was very small, its left ala was much thickened and of gelatinous appearance, the other ala was exceedingly thin. The outlet of the pelvis was very small. The ribs were thin, a rounded swelling was present on the fourth rib on left side, it was a sort of callus formed on a fracture. Humerus much bent and twisted inwards, radius and ulna also very much bent and twisted. Femur bent, convexity outwards, and twisted on itself. Epiphysial line resembled that in rickets, it was thick and irregular. The long bones were thin in the shaft, rough and brittle, epiphyses were about the normal size. The disease closely resembled rickets in many points, but it also was very similar to cases of osteo-malacia. This case went to prove a close affinity between the two diseases. If forced to choose, he would think it was a case of osteo-malacia. 1. Because it occurred late in life. 2. Because of the calculi which formed in the kidney. 3. Thinness and flexibility of the long bones. 4. Utter useless of remedies for rickets. He had given her a course of cod-liver oil, iodide of potassium, iron and mercury, but they all failed to check the progress of the disease.

Mr. Symonds had examined the jaw, rib, ilium, femur, tibia, and skull; the femur and tibia showed a complete absence of compact tissue, the vessels were very large, the tissue was fibrous, periosteum was closely adherent. This wasting of the bone as it appeared to be, had led to the fractures. The swelling on the ilium was covered with a thin layer of bone. The jaw swelling and that on the rib were made up by concentric lamellæ separated by gelatinous tissue. The skull was porous, showing a very large space occupied by a fibrous medulla. In dried specimens the edge of the bone was in close contact with the medulla. The appearances were those of imperfect bone. Cornil and Ranvier had described very similar changes. The epiphysial line showed very great proliferation of cartilage cells.

The President said the points of this interesting case had been very tersely put. In several cases in adult women with osteo-malacia he had seen calculous disease.

Mr. Lane.—Rindfleisch said the first change was a decalcification. He supposed that as decalcification took place there was an attempt at the formation of new bone, but only partially successful. The fractures were merely very marked decalcifications and not really fractures. He had brought a larynx showing a condition bearing on this question.

Bone Disease in Wild Animals.

Mr. J. B. Sutton made a further and final communication to the Society on this subject. The question of age would, he hoped, be satisfactorily settled by his paper:—Rickets was, he said, a very common affection amongst carnivorous animals. Out of some thirty cases he had selected three groups of specimens to illustrate the question of age. 1. Specimens of rickets occurring in infancy, the young of the rare animal *Cynictis* had been chosen; they had died at the ages of three and four months respectively, and had beaded ribs, a deformed thorax, thickened bones, and enlarged epiphysial lines. Examination of a large number of skeletons had led him to conclude that the rickets of infancy attacked chiefly the appendicular skeleton, the thorax, and occasionally the skull; infractions of the ribs were common. 2. A nearly full-grown lion had never cut its teeth properly: for some months before its death it gradually became paraplegic. At the *post-mortem* examination the skull was found to be very thick, the ribs were beaded, the teeth were large but defective, the spinal cord was nipped by the enlargement of the epiphysial lines of the vertebral centra, and the encroachment on its canal of the intervertebral discs. The disease was equivalent to late rickets in the human subject, and its chief features were that the axial skeleton was most commonly attacked, but the spine and thorax only might be affected, or the vault of the cranium alone. Infractions of the ribs were common. 3. Much the rarest occurring in adult animals. The skeleton was much deformed, the bones were brittle, the teeth fell out, paraplegia was a prominent symptom; he would call this form the adult rickets of animals. There was one other form of the disease in young animals, of which he could offer no explanation, viz., where the bones were soft, the epiphyses large and rickety, and the diaphyses developed bulgings, the medullary cavities becoming filled with a diffluent oily material. He then detailed, at some

length, the views of M. Lataste, a Frenchman, whose observations strikingly coincided with his own. M. Lataste had been led to the following conclusions:—That rodents, in captivity, were exposed to a malady, the severity of which increased with the time they had been in the captive state. That under two distinct aspects, *rickets* in the young and *osteo-malacia* in the old, the disease consisted essentially in an alteration of the osseous system, either by absence of the assimilation or by reabsorption of the calcareous salts. Without wishing to fall into the error of drawing conclusions upon insufficient data, Mr. Sutton thought we were now in possession of the main features of this curious disease in three classes of animals:—Quadrumana, Carnivora, and Rodentia. One common group of causes—captivity and bad hygiene, gave rise to rickets of infancy and puberty, and a disease resembling osteo-malacia in the adult animals. The differences in the manifestations of the disease were due to the altered physiological condition of the skeleton incident to the three phases of life—infancy, puberty, and maturity.

Professor HUMPHEY said this was an interesting and difficult malady. In rickets we had an imperfection of growth or formation as shown in deficiency of size, for the bones were always small. There was not so much increased proliferation of cartilage as deficient calcification. If there was an increase, what became of it? He believed the increase was only apparent. Accordingly there were islets of unossified cartilage. Were the epiphyses enlarged? The epiphysial lines might be. The additions to rickets were two, absorption of material leading to thinning of the bone which might run on to mollities. The other was addition of bony material especially in the skull, a porous thickening, it might also occur about the lower end of the radius, the cause was unknown, not a direct rickety phenomenon. These two things also went on in old people, absorption of cancellous tissue of long bone, and the skull thick, hard, and heavy.

Chondro Epitrochlearis Muscle.

Dr. FREDERICK TAYLOR showed a patient who showed a web due to the presence of this muscle in each anterior axillary wall. It was the representative of a muscle in the anthropoid apes.

Mr. CLEMENT LUCAS mentioned the case of a child in whom he divided the muscle.

Mr. JOHN WOOD had never seen so well marked a case. On the two sides the muscles were not quite symmetrical. Sometimes there were slips from the ribs, and he had seen a double tendon. The muscle was very well developed in birds. He thought such a condition might be racial, it was not very uncommon.

Professor HUMPHEY said this was a variety of segmentation in the primitive arrangement. Low down in the animal series the pectoralis major and deltoid were not separated. They were the results of imperfect morphological development from lower types.

Intestines from a Case of Syphilis.

Dr. NORMAN MOORE showed a skull-cap and small intestine showing syphilitic lesions from a woman, aged 46, who died in St. Bartholomew's Hospital, in Dr. Gee's ward. The skull-cap was very adherent to the cranial fascia, and showed a node on its external surface. On the inner side of the right parietal bone was a bare patch, corresponding to which there was a dense local thickening of the dura mater, a partly degenerate gumma. The intestines were distended with fæces, though there was no single obstructed point. In the small intestine were numerous thickened patches, some ulcerated, some showing scar tissue and contraction, and some consisting of fresh connective tissue. The mesenteric glands were not enlarged. The liver was small, and showed many scars, and one recent gumma. The kidneys were small and granular, but without scars. There was a double pyosalpinx. There had clearly been long-continued obstruction at several points in the small intestine, for between the ulcerated places there was a slight general thickening of the intestinal wall. There was no amyloid disease. Visceral syphilis, though a rare cause of obstruction in the upper part of the large intestine, was of much rarer occurrence in the small intestine, and there was no similar specimen on record in the medical *post-mortem* books at St. Bartholomew's.

Keloid Tumour in the Neck.

Mr. ROGER WILLIAMS showed photographs of a female, aged 53, with a keloid extending across the neck, close to the hair. It was smooth, shiny reddish, surface showing follicular depressions with tufts of bristly hair. On pressure, semi-caseous matter exuded. The growth was of five years' standing. Microscopically, there was a new growth of dense fibrous tissue in the deep layers of the corium, with large vascular channels. The epidermis and papillary layer of the corium were nearly normal. The glandular structures had nearly disappeared. The disease was a variety of the keloid of Alibert.

Dr. O'CONNOR thought the name should be called cheloid.

True Cystic Degeneration of the Liver.

Dr. HALE WHITE brought forward this specimen. The liver was taken from the body of a soldier who died from yellow fever, and was found to be full of holes. Microscopically the condition was exactly the same as in cases already shown to the Society, *i.e.*, the presence of small vacuoles simultaneously in many hepatic cells, some running together to form large cavities visible to the naked eye. These contained the remnants of the broken-down hepatic cells. It was pointed out that this condition could be easily distinguished from fatty change, by its not staining with osmic acid, and also from *post-mortem* decomposition, which produced a spongy condition of the organ not containing air bubbles. The points of distinction between cysts due to vacuolation and those due to dilatation of the ducts were, that in the latter case, there would be a cause for the contraction of the ducts; and if the cysts were numerous, they would contain bile pigment, those that did not were usually congenital, large, and single. A liver full of cysts from cirrhosis was also shown. Under the microscope the difference was obvious. The cases brought forward by himself and Dr. Savage all occurred in lunatics, and all the organs were affected. The vacuolation could not be looked upon as congenital. Specimens were shown of that very rare affection in which tubercular deposit led to the formation of small cavities by breaking down; the cavities were small, and the disease only occurred in children. They could not be confounded with vacuolation.

Dr. NORMAN MOORE asked the time of the *post-mortem* after death. He was not convinced that these holes were not due to putrefaction. Pressure on the ducts did not produce cavities, it dilated the ducts enormously.

Mr. SUTTON said he had seen several cases in animals of vacuolated liver, the animals died from acute fever. It would have been more satisfactory if the patient had died from something else.

Dr. MAHOMED supported Dr. White's views. He did not think there could be any confusion between *post-mortem* vacuolation and this condition. The cases were rare, but certainly existed.

Dr. WHITE.—The examination was made from four to six hours after death. The points of difference between this and *post-mortem* change were very marked.

Card Specimens.

Dr. F. C. Turner.—1. Mitral stenosis from necrosis of valve. 2. Extreme obstruction of one coronary artery. 3. Free coagula in the pulmonary vein.

Dr. Goodhart (for Dr. Pye Smith).—Primary cancer of a cirrhotic liver.

Mr. Clement Lucas.—Kidney removed by nephrectomy.

Mr. Lane.—Spine from spastic contraction of sterno-mastoid.

HARVEIAN SOCIETY OF LONDON.

Thursday, March 20th, 1884.

Mr. George P. Field, President, in the Chair.

Spasm of the Muscles of the Face and Cataract due to Dental Irritation.

Mr. Henry Sewill's paper dealt with the case of a middle-aged lady, the subject of inveterate neuralgia, who, during late years, had suffered from a series of alveolar abscesses, and in 1881 had complained of recurring pains in the right eye, complicated, since January 1882, with persistent spasm of the right side of the face. In July, 1882, partial loss of sight from right cataract, and partial closure of the same eye from spasm of the orbicularis were superadded. In July, 1883, she consulted Dr. Ferrier, who, suspecting the symptoms to be due to dental disease, prevailed upon her to submit to extraction of the offending teeth. Mr. Sewill found in the upper jaw the stumps of some molars; and artificial bicuspids, incisors, and canines attached to a vulcanite plate, which had not been removed for years. The right canine was completely broken down, and pus exuded from several fistulous openings in the gums. The lower teeth were hidden beneath an enormous mass of tartar. The treatment consisted in extraction of all the upper teeth at two sittings, and in gradual removal of the tartar from the lower teeth. Within two days of the extraction the facial spasm entirely disappeared, but no change took place in the damaged lens. Mr. H. Power had lately stated, in a paper read before the Odontological Society, that dental lesions were very frequently the cause of diseases of the eye. Threatening glaucoma, especially when associated with ciliary neurosis and with obscure temporal and orbital pain; mydriasis, myosis, sudden paralysis of some of the orbital muscles and loss of sensation, in the absence of cerebral symptoms; phlyctenulæ and corneal ulcers, especially in children; sudden failure of accommodation and exophthalmos, were conditions calling for careful inspection of the teeth. To these should now be added cataract. Mr. Power had pointed out various ways in which irritation originating in the teeth might reach the eye: (1) inhibition; (2) trophic or vaso-motor influence; (3) extension of neuritis; reflex irritation or sympathy. The case recorded above was probably an instance of trophic disturbance.

The President called attention to the frequency with which the ear was affected from the same cause.

Mr. F. Treves referred to cases similar to that brought before the Society, which had occurred in the practice of Mr. Hilton and of Dr. George Johnson. Addressing himself to the anatomical aspect of the question, he criticised the theories suggested by the author for an explanation of the nervous mechanism at work. The case might lend support to the view that a nervous communication existed between the second division of the fifth nerve and the lenticular ganglion.

Mr. Juler considered Mr. Sewill's case to be one of great interest. He was of opinion that diseases of the teeth were very commonly the cause of ocular and intra-ocular lesions, and quoted some illustrative cases. In a young lady, aged seventeen, the right eye was very hypermetropic (6 D), and the vision bad, while the ophthalmoscope showed patches of recent choroiditis at the posterior pole of this eye. She was found to be suffering from a "retained" tooth in the left upper jaw, which was extracted, with considerable improvement in the vision. Another young lady had evident symptoms of inflammation of the ciliary region, and the vitreous was crowded with large membranous and fine floating opacities. She had carious teeth, and Mr. Juler had no doubt that the eye would improve if they were extracted. A third case was that of a delicate woman, aged 50, who suffered from persistent jactitation of the right eyelids. There was a carious tooth in the upper jaw of the same side; it was extracted, and with it disappeared all the facial trouble.

On certain Forms of Intestinal Obstruction that may follow after Hernia.

A paper on this subject was read by Mr. F. Treves.—Although after complete reduction of a strangulated hernia, and after recovery from the operation, as a rule, no further intestinal troubles may be expected, apart from such as depend upon fresh accidents to the rupture, certain forms of intestinal obstruction might follow after such reduction. (1) Stricture of the intestine due to cicatrisation after ulceration or sloughing of the mucous membrane, or to a form of contracting peritonitis. From the collected cases it would appear that neither the seat of the hernia, nor the duration of the strangulation, nor the nature of the operation, have certain or definite concerns in the production of these strictures. (2) Obstruction due to adhesions. The herniated loop may become adherent to the parietal peritonæum, and cause occlusion by "kinking," or the adhesions may lead to "bands" that may be the means of producing obstruction, omental bands are also common after certain herniæ. (3) Obstruction by the formation in the bowel of a rigid loop. Several examples of this form of obstruction were given, together with examples of a fistula bimucosa consequent upon injuries received by the strangulated bowel.

Mr. Gant took a different view from the author of the paper, with regard to the origin of stricture of the intestine and looped constriction, as forms of intestinal obstruction resulting from hernia. They were not subsequent conditions, but commenced from the time of operation, owing to the indentation often left upon the bowel at the seat of stricture, when the strangulated portions had been inadvertently returned into the abdomen in that condition. Hence the great importance of the rule he always observed, that of gently drawing down the gut, and of effacing the indentation by gentle manipulation before returning the part into the abdomen. The same might occur after the reduction of enterocele without operation, and it might be advisable to resort to operation to discover and release any such constriction, even when reduction could be effected by taxis, provided that the duration of the strangulation rendered it probable that plastic constriction might have supervened.

Mr. Cowell criticised the statement that the duration of the hernia had no definite influence upon the liability to subsequent obstructions. Some of the forms of obstruction, and especially those produced by bands of adhesion, were much more likely to be found in old herniæ. In many patients several different portions of intestine in succession found their way into the hernial sac, and were liable to be pressed on, each of them in turn becoming the seat of some inflammatory change and exudation.

The discussion was continued by Dr. Symes Thompson and Mr. Pepper. After which Mr. Treves replied, and the meeting was adjourned.

Paraldehyde and Strychnia.—In the course of a communication on paraldehyde, M. Dujardin-Beaumetz says that he has found in animals a remarkable antagonism between this drug and strychnia; animals thoroughly under the influence of paraldehyde may be given a dose of strychnia twenty times stronger than the maximum dose without producing fatal results. This antagonism is of extreme interest in conjunction with that between alcohol and strychnia. So far as has been ascertained at present, this antagonism is certain only as regards rabbits; cases of strychnia poisoning being too rare to have allowed the verification in the human subject—*Gazette Hebdomadaire de Médecin et de Chirurgie*, February 15th.

GENERAL MEDICAL COUNCIL.

FOURTH DAY—MARCH 28TH, 1884.

The Case of Mr. Matthew Bass Smith—The Case of Michael Healy—The English Conjoint Scheme—Preliminary Examinations—The Deficiency of Anatomical Subjects.

WHEN the Council adjourned on Thursday, the case of Mr. Matthew Bass Smith was still under consideration. Mr. Smith's name had been removed from the Register just ten years ago for an offence, the memory of which it would be ungenerous to revive, and it was now stated on his behalf, in a petition signed by a large number of medical practitioners and others, that ever since that date he had conducted himself as a gentleman of good moral character should do, and that he was now advanced in years and not in good health. The petitioners, therefore, appealed to the clemency of the Council, and begged that Mr. Smith's name should be restored to the Medical Register. Mr. Bass Smith, though not summoned before the Council, attended voluntarily on Thursday, accompanied by his solicitor and a medical friend, and gave the Council such explanations as were thought necessary. On the resumption of the discussion on Friday, Mr. Simon moved—"That a Committee be appointed to report to the Council on the facts in Mr. Matthew Bass Smith's case." This resolution, however, was not accepted, and in the end the Council agreed by nineteen against three to restore Mr. Smith's name to the Register.

Some technical business having been disposed of, letters from the Registrar of the Royal College of Physicians of London, and from the Secretary of the Royal College of Surgeons of England were read, intimating to the Council the withdrawal of those bodies from the Conjoint Scheme of 1877, which had never come into operation. The Rev. Dr. Haughton wanted to know why the scheme had never come into operation, and tried to get the Council to endorse his curiosity, but after a brief discussion the formal resolution he proposed on the subject was allowed to be withdrawn.

The Council next had before them the case of Michael Healy. This gentleman, a registered medical practitioner, had been repeatedly reported to them by that very active body the Liverpool Medical Defence Association, as guilty of infamous conduct in associating with a notorious quack called "Ethens Tomanzie," who had been sentenced to two months' imprisonment for fraudulent conduct in reference to the Births and Deaths Registration Act. Michael Healy had been warned to discontinue this flagitious connection, but paid no heed to this warning, and from a statement made to this Council appears to have died last Christmas *in flagrante delicto*. The Council discussed this case in private, but were unable to come to any decision, and adjourned its consideration to a more convenient opportunity.

Some remarks from Mr. MACNAMARA, on the relinquishment of the English Conjoint Scheme had the effect of calling up Dr. HUMPHRY, who said that having been more than anyone else associated with the growth of the Conjoint Scheme in question, he was possibly better than anyone acquainted with its aims and intentions. The scheme was devised and perfected by all the English bodies in conjunction, and they had fully intended to carry it out. If England was at fault, the fault lay at Scotland's door. It was felt unwise to carry it out in England, unless it was likely to be carried out in each of the other divisions. He thought it would have been wiser had England carried out the scheme, but she naturally hesitated to go on while Scotland held back, less there should be an increased emigration of English students to the easier examinations of Scotland

Prof. MARSHALL also contended that the action of the English bodies had been retarded by the delay of the Scotch division of the Kingdom in proceeding with a conjoint scheme. The appointment of the Royal Commission and impending legislation served further to create delay. If Government should fail in settling the question of reform, it would then remain for the Colleges to unite in forming a combination to carry out the scheme.

After remarks by the Rev. Dr. HAUGHTON, Mr. TEALE and Dr. SCOTT ORR, the PRESIDENT alluded to the high importance of this discussion. Fourteen years ago he endeavoured to promote a conjoint examination scheme. At more than 70 meetings, extending over four years, he advocated such a scheme. The Council had recognised the evil of many examining boards, and that a reduction of their number must either voluntarily or by law be made. He felt that the matter demanded action, and that the opinions of politicians and others should not influence the proceedings of the Corporations in this respect. The state of the existing political atmosphere was too uncertain to admit them to place reliance on legislative action in producing what they wished; and the difficulties under which students labour demanded that something should be done for their relief, and such a means was, he urged, to be found in a conjoint scheme of examination.

The rest of the sitting was almost entirely taken up by a discussion of the subject of preliminary examinations. Several communications in connection with this subject were before the Council. First, the Report of the Preliminary Examinations Committee, consisting of Sir Henry Pitman, Dr. Humphry, and Dr. Haldane. The Committee had been appointed by the Executive Committee to consider a letter from Mr. Rendle, the secretary of St. Thomas's Hospital Medical School, asking for information as to whether students who had not taken mechanics in their preliminary would be called on to pass it subsequently.

The Committee stated in their report that they "feel that in this and other respects the subject of preliminary examination requires the consideration of the Council, but the present period appears to the Committee to be most inappropriate for entering upon this consideration. Should the Bill now before Parliament become law during the present Session, the consideration of this subject would devolve upon another body. Should it not do so, it would be the duty of the Medical Council to lose no time in entering fully upon it."

The report having been received, it was moved by Mr. SIMON, seconded by the Rev. Dr. HAUGHTON, and agreed to—"That, in answer to Mr. Rendle's letter, the Registrar inform Mr. Rendle that the regulation to which he refers (that students who have not in their preliminary examination passed an examination in the elementary mechanics of solids and fluids shall pass this examination before or at their first professional examination) is a regulation to which the Council attaches much importance, and which it intends to be strictly observed."

The Council had next before them a communication from the Oxford and Cambridge Schools Examination Board, in which attention was drawn to the varying requirements of the lower certificate of the Oxford and Cambridge Board and the junior certificate of the Cambridge Local Examinations Syndicate, both of which are accepted by the Council as recognised preliminary examinations. The latter, however, does not require a knowledge of English history and geography, and accordingly the secretaries of the Oxford and Cambridge Board suggested that they should be allowed by the Council to omit those subjects from their requirements. It was now moved by Dr. HUMPHRY, and seconded by Mr. TEALE—"That the request of the Oxford and Cambridge Schools Examination Board, to be allowed to omit the words 'English history and geography' from the list or subjects required by the Medical Council for the recognition of its certificates, be acceded to." A long and amusing discussion took place, but as the hour of adjournment was approaching, the motion was in the end withdrawn.

The last business of the day was to receive the Report of the Committee on the Deficiency of Anatomical Subjects, which has been sitting for the last two years. The gist of this report was that the Committee was unanimously of opinion that it would be undesirable to seek for further legislation on the subject.

Fifth Day—March 29th.

The late Duke of Albany—The Cases of D. M. O'Hara and W. Story—The Conjoint Scheme of the Scottish Corporations.

After the minutes recording the labours of the previous day had been duly read and approved, Sir Henry Pitman rose to ask the President what steps he had taken to carry out the wishes of the Council in reference to the death of the Duke of Albany.

The President, in reply, read the following letter, which he had drafted for the approval of the Council.

"May it please your Majesty,

"We, the General Medical Council of Education and Registration of the United Kingdom, have learnt with extreme sorrow this day, during our ordinary sitting, the blow which it has pleased God to inflict upon your Majesty, upon your Majesty's House, and upon the Nation.

"In common with the rest of your Majesty's subjects, we admired the great attainments, the high character, and the noble aims of the Prince who has been taken from your Majesty and from the country so suddenly, and so grievously. We felt that the Duke of Albany was walking in the footsteps of his revered father; we had hailed with delight his apparently established health; and we hoped for a long continuance of those powers which every year seemed to be more and more developed in His Royal Highness.

"We believe that a judicious and true friend has been taken from literature, from science, from the arts of the United Kingdom of Great Britain and Ireland, and from the Empire, at a time when his calm judgment was not less valuable than his gentle and fostering care.

"Into the more sacred feelings of your Majesty's private life, and of the Duke of Albany's home, we dare not intrude, but we humbly tender the heartfelt sympathy of loyal subjects to your Majesty and to all your Majesty's family. We heartily pray that your Majesty may find all the consolation which a knowledge of the deep sorrow of your Majesty's subjects can impart."

This having been unanimously accepted after a verbal correction had been suggested by Dr. Lyons, the President announced that it would be signed by all the members of the Council on Monday.

The adjourned consideration of the case of D. M. O'Hara was then resumed.

Mr. Burrell read a letter from O'Hara, dated from Prescot, containing a number of rambling statements about his having been delayed in Liverpool by illness when on his way to appear before the Council, and asking that there might be an adjournment in order that he might have time to prepare his defence, which he assured them would afford a complete answer to the charges against him. Amongst other things, he undertook to perform what even for him would have been a feat of no small magnitude, viz., to produce the real O'Hare, whom he asserted to be in America. The letter denied by implication that he had been in London on Wednesday last.

The first witness was Mr. Wynne, whose evidence was to the effect that, in consequence of his application to Mr. Needes, O. P. O'Hare came to him as assistant in the latter part of 1882, and remained altogether with him about ten months. When he first came, he produced some printed testimonials, which seemed satisfactory. About six days after he came a death occurred, and O'Hare signed the certificate "O. P. O'Hare," which was refused, as his name was not on the Register. He then substituted the name of D. M. O'Hara, and the certificate was accepted, though this name was equally absent from the Register. [We may here correct an error into which we fell last week in saying that both these names had been removed from the Register in 1882. The real facts are that O. P. O'Hare was struck off in 1874, having been convicted of forgery in Belfast, and D. M. O'Hara was struck off in 1878 for not answering the circular.] The witness had seen the alteration in the counterfoil, but had never seen the certificate itself, and could not say how it came to be accepted by the Registrar. From the date of his signing this certificate he was always called and signed himself "D. M. O'Hara," but he continued to send goods from a draper's to some one in Belfast of the name of O'Hare, and this he had done since he had been at Prescot. He had left his employment because he owed him (Mr. Wynne) 160*l*. He went to assist a doctor in Prescot after this, and then had charge of the workhouse there, but this he had given up some months ago. The O'Hara who was recently at Prescot was the same person as the man who had been his assistant, and from what he had said at different times he inferred that the real D. M. O'Hara was dead. The next witness was the clerk to Mr. Needes, who said that he had known O'Hare on and off for about four years. In October, 1882, he saw him write the letter dated from Fleet Street, a copy of which had already been put in. He had then gone up to Liverpool to assist the last witness, and letters had been received from him after his arrival there. On Wednesday last he had called at their office to see about selling his practice; this man, who then called as O'Hara, was the same man witness had formerly known as O'Hare. He had never asked to see his diplomas.

Mr. Quinn, a Liverpool solicitor, was the next witness. He said that a man calling himself O'Hara had come to his office in November, 1882; he was not personally known to him, but he mentioned the name of a client as introduction, stating that he wished to be reinstated on the Medical Register. He said he had formerly practised in Ireland, but had gone to Australia owing to ill-health. Witness described the man O'Hara in much the same terms as previous witnesses had. The witness had obtained the papers for him from Dublin, and forwarded them to him to fill up. On that day fortnight he had gone over to Prescot for the purpose, and had seen O'Hara, who was then quite well.

The Council then deliberated in private, and it was subsequently announced that their decision was to the effect that this man had been fraudulently restored to the Register, and that it had been proved to the satisfaction of the Council that he was O'Hare; the name would, therefore, not be allowed to remain on the Register.

In the case of William Story, struck off on a conviction for arson, the Council did not accept the recommendation of the Executive Committee, having received evidence which had not been submitted to that body, and they therefore declined to reinstate him on the Register, or recommend that his licences should be restored to him.

The next business on the agenda was Dr. Haldane's motion, "That the Scottish Corporations' Joint Scheme be received and entered on the minutes." After some opposition on the part of Sir Henry Pitman, who was unable to find a seconder to his amendment, the resolution was carried.

Dr. Haldane then moved, "That the proposed co-operation between the Colleges of Physicians and Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow be approved of." We may mention that by a misunderstanding he made his speech on this subject on the previous resolution, but the proceedings were a little mixed at this juncture. He said that the Corporations had been willing to go forward for some time, but the Universities were not; and it had to be borne in mind that whereas in England the Universities played a very small part in medical education, in Scotland, on the other hand, the Universities did the bulk of the medical teaching. Under these circumstances the scheme before them had been drawn up, and he hoped the Council would approve of it. The object was to prevent a man obtaining a licence to practise on a single qualification, and the Corporations would refuse to give a single qualification to any one who did not already possess one. By this scheme, which had been founded on the recommendation of the Council, the examinations would be much more equalised. The only objection that could be raised was that the time was inappropriate in reference to the Bill now before Parliament.

Dr. Struthers seconded the motion, but reserved his remarks.

Mr. Simon said that for twenty-six years the Council had been formed, and during that time there had been plenty of time for such a motion, but it had never been made. At the present time it was particularly inopportune.

If the Bill became law, then there would be a combination of all the examining bodies. If the motion was now passed, it would be used against the Bill. He urged strongly that this scheme should be deferred till the Council assembled after the present Session of Parliament. If the Bill did not pass, then such a partial combination would be welcome if there was nothing better proposed.

Dr. AQUILLA SMITH took very strong objection to one paragraph in the scheme, by which the agreement was to last for five years, but might be terminated by either of the contracting parties on a year's notice being given.

Mr. MACNAMARA said the question was, whether they should endorse the Conjoint Scheme in a partial form. Mr. Simon's objection told both ways: if they passed this scheme, it might be used by the opponents of the Bill; if they did not pass it, the fact would be used by the adherents of the Bill. He denied that the Council was in a moribund condition, their legal powers were as full, and they were endowed with as much vitality as when first instituted. Duties had been imposed upon them by Act of Parliament, and to reject this scheme would be unworthy of them. It had been brought forward in perfect good faith, and he hoped they would not object to it on the ground of the impending Medical Bill. The Bill might pass, or it might not: he hoped it would, with some modifications: at present it had not the remotest ghost of a chance of passing. The scheme before them ought not to be rejected upon a side issue.

The further discussion on this subject was adjourned till Monday.

SIXTH DAY—MARCH 31ST.

The Scottish Corporations' Conjoint Scheme.

The first hour was occupied by the Council in receiving a report from their legal advisers in reference to the case of D. M. O'Hara.

The adjourned consideration of Dr. Haldane's resolution was then proceeded with. The Rev. Dr. HAUGHTON said that only three of the clauses of the scheme before them dealt with questions of principle, the others relating to matters of detail. The three included the first two, which he should support, and the last, which he should oppose. He thought the two former were a move in the right direction, on lines the Council had always urged. The Scottish Corporations had brought forward a scheme which could be easily carried out, but Clause 15 was a fatally weak spot, as there was no guarantee that the useful reforms, when once entered upon, would be continuous; he, therefore, suggested the addition of some words to this clause to render the sanction of the Council necessary to any party withdrawing from the scheme when once in working order.

Dr. QUAIN spoke in favour of postponing the resolution. His objection to the proposal was that it was altogether new, that it implied that the Council thought the Bill would not pass, and that the passing of it would be taken as an expression of the Council against the Bill. The resolution, moreover, was entirely opposed to previous resolutions of the Council in favour of a conjoint scheme, passed thirteen years ago, when the Universities were requested to take steps to form a conjoint board, and to report the scheme to the Council.

Sir HENRY PITMAN moved an amendment to the effect that the question of approving this scheme be not considered during the present session of the Council. He said that the Council ought to be very careful what they did at the present time. The College of Physicians had for years been trying to bring about a conjoint scheme, and fourteen years ago all the corporate bodies had spoken in favour of it. Referring to Lord Ripon's Bill, he said it had been approved by the Council and corporate bodies, but was opposed by the profession. Both last year and again this year a Government Bill had been introduced; the corporate bodies and the Council had failed to settle the matter, and so the Government had taken it up. They ought not to sanction any scheme which was directly in opposition to the Government Bill; this scheme was in such opposition, in that under the new Bill all licensing powers would be altogether taken away. The English scheme had been introduced to show its real date which was before the Bill of last year was brought into Parliament. He hoped that the motion would be withdrawn, as the Government would have an opportunity of seeing that there was an earnest wish on the part of the corporate bodies to act if their Bill failed.

Professor HUMPHRY seconded the amendment, and in doing so, he said that he expressed no opinion whatever on the merits of the Bill, and no opinion whatever on the merits of this scheme, or as to the effects it might have in regard to that Bill, but he seconded the amendment, because this scheme would be invalid if the Bill passed. They could enter upon the consideration of this scheme, only upon the supposition that the Bill would not pass. It would be most discourteous of the Council to enter on the consideration of this proposal, they would be putting themselves into antagonism with the Government. Another point was, that they were asked to approve this scheme or not, as it stood, some details they might object to, but only the Corporations could alter or modify it. If the Council did approve it, they would be binding the Corporations to adhere to it. They ought to await the event of the Bill, if it passed, there was an end of the matter, if it did not, it would be the duty of the Council to assemble at once, and no longer to hesitate or wait, but take up this subject without delay.

Dr. MATTHEWS DUNCAN then made a speech which referred almost entirely to the Government Bill, and not to the question before the Council. He ardently hoped and felt certain the Bill would not pass; the profession were not in favour of it, and he characterised the statement made by a former speaker, that the Council approved the principle of the Bill as entirely false. The principle of the one portal system was the worst that could be invented. Lord Carlingford's Bill would not produce peace, their difficulties would only be beginning if the Bill were passed. The one portal system was to bring about uniformity and equality, what they required was exactly the opposite; a diversity such as existed at present was beneficial. He certainly did not desire uniformity in his own specialty. Medical science and medical education had prospered during the time of dispeace; the dead stillness of uniformity did not lead to advance. He thought there was a real grievance n England, in the difficulty of obtaining the degree of M.D. The inequality of medical boards had made medical education rise; so long as they were above the lowest level, the more unequal they were the better. He had sat upon a great many boards, and thought the Universities ought not to be made to bring down their standards. The alliance between the Universities and the Corporations he described as an unholy one, they never could co-operate cordially or equally, they had utterly different objects in view, the one looked after medical matters solely, the other had very little to do with them, except in regard to their degrees. If this Bill passed he should for the first time in his life be ashamed of his profession. All the speakers had said that Dr. Haldane's scheme was a good one, that greatest object, that none should get qualified in one branch only, was provided for.

Mr. SIMON rose to object to Dr. Matthews Duncan's assertion that a statement of his was entirely false, whereupon Dr. Duncan withdrew the expression and substituted for it "misleading and inaccurate."

At this point the sitting was adjourned for a short time; on reassembling, the PRESIDENT hoped that speakers would confine themselves as closely as possible to the amendment, and avoid the Government Bill.

Mr. MACNAMARA said that he had not heard a single argument against the scheme, except in reference to the Bill. The Scottish bodies were acting within their rights, and endeavouring to discharge their duty.

Professor STRUTHERS characterised the amendment as a high-handed attempt to arrest discussion. Hardly any more important proposal had ever been brought before the Council than the present one. It would put an end to all the evils that had been complained of in Scotland. Was this amendment fair to those who brought it forward? What good purpose could be served by refusing to discuss it? He denied that the scheme was either partial or inopportune. As he could not speak to the motion but only to

the amendment, he was prevented from speaking on behalf of the Universities and Corporations; in reference to the former he had a most interesting and important communication to make; but if the amendment was accepted, he should be precluded from making it altogether. He would have been able to show that Scotland was above reproach, and had removed all occasion for legislation. He expressed no opinion about the Bill; if this scheme was passed, there would be no need of the Bill for Scotland. He denied that if the Bill did pass this scheme would be annulled; it would be in no way interfered with.

Dr. PETTIGREW hoped that the amendment would not be carried, and that there would be a discussion on the proposal.

Mr. TEALE would have been glad if they could have given a general approval of this scheme without sanctioning it. If they discussed this, they ought with it to have discussed the English scheme. Dr. Struthers had stated that the passing of the Bill would not interfere with the working of this scheme, and this would prevent him from voting for the amendment as he otherwise would have done.

Dr. HERON WATSON thought that the Council ought to consider the very carefully planned scheme brought before them. It had been asked why they had not done something of this kind before, instead of waiting 26 years, but the fact was that in 1858 a Scottish Conjoint Scheme had been formed, and had been in working order ever since. They were now trying to amend that scheme and reduce the five corporation portals in Scotland to only one. They were abundantly justified in coming forward at the present time, they could not go back if this scheme were approved. If they waited till the end of the session they could not consider the scheme till September, whereas if passed now it would be in working order by October.

Dr. BANKS believed the motion was a step in the right direction, and he regretted that Ireland had as yet done nothing in the matter. If the three kingdoms had all had such a scheme as this in working, there would never have been a bill at all.

Dr. SCOTT ORR should vote against the amendment. It had been found impossible to amalgamate the Universities and Corporations. This scheme would do away with a scandal. As to waiting for legislation, how long were they to wait? There had been three Bills in Parliament since 1870.

Sir HENRY PITMAN having briefly and forcibly recapitulated the arguments in support of his amendment, the Council divided, when the amendment was lost by a majority of two votes.

The debate on the original resolution was then resumed.

Dr. HERON WATSON explained that Clause 15, which provided for a plan by which either of the contracting parties could withdraw from the scheme by giving a year's notice, was merely a piece of legal phraseology necessitated by the Scottish customs in matters of co-partnery. There was, however, no objection to Dr. Haughton's amendment, which he was quite willing to accept.

Dr. STORRAR asked if there was any plan in contemplation for conducting the preliminary examination in arts, similar to that in England. This examination in arts should be conducted by some public body wholly outside the medical profession. The College of Physicians had long ago, and the College of Surgeons had more recently, given up holding this examination themselves. In Scotland this examination was at present conducted by the medical bodies, which was much to be regretted. He thought that they ought to have some indication from the promoters of this scheme that the preliminary arts examination would be conducted in accordance with the wishes of the Council.

Dr. WATSON said that they meant loyally to carry out the scheme, but he admitted that there was no provision against the preliminary examination being conducted by the medical authorities.

Mr. SIMON could not support this resolution when there was a Bill in Parliament that was in principle the scheme of the Council. It would be most deplorable in the interests of higher education, if the Universities did not take part with the Corporations throughout the three divisions of the Kingdom; they need not necessarily be on the same footing. The principle had been laid down in 1870, and re-affirmed 1871 and 1878, that there should be only one sanctioning authority in each division of the Kingdom. He could not be content with a scheme which was of such a limited nature. Comparing it with the Bill, it was an inferior measure. They ought to do their duty whilst they existed, but to approve a scheme in opposition to the Government scheme was not their duty.

After some further remarks from Mr. MACNAMARA, Dr. STRUTHERS, and Mr. MARSHALL, Dr. HALDANE'S resolution was put, and carried by a large majority.

On the motion of Sir HENRY PITMAN, the Conjoint Scheme of the College of Physicians and College of Surgeons of England was received and entered upon the minutes.

SEVENTH DAY—APRIL 1ST.

The Medical Acts' Amendment Bill.

Mr. MACNAMARA proposed the following resolution:—"That this Council do resolve itself into a Committe of the whole Council, for the consideration of the provisions other than those directed to the reconstruction of the General Medical Council contained in the Medical Act Amendment Bill, as amended in Committe of the House of Lords in this present Session of Parliament." Last year he had brought forward a similar resolutiou which had been lost by a small majority, he had introduced a modification this time which, he thought, would render his motion more acceptable. The President in his address had not alluded to this notice of motion, but notwithstanding this hydropathic treatment of it, it was worthy of their consideration—he did not intend to put himself into antagonism to the Government—he would indeed try to strengthen the hands of the Government, subject to their adopting an amendment which did not affect the principle of the Bill. The General Medical Council had been abused by the journals, who twitted them with using moral suasion, ignoring the result of that suasion. The Bill was a purely journalistic one, and he denied that the medical profession were panting for the Bill at all. In regard to the question of "direct representation," a meeting of the provincial and other Fellows of the College of Surgeons in Ireland was held, when only seven were in favour of direct representation. He had never heard any other than journalistic agitation in favour of it, and he did not believe that the admission of a general practitioner into their midst would in any degree strengthen their position. The Bills that had hitherto been framed and brought in had never received the sanction of any great statesman, and he instanced Lord Palmerston's reply to Mr. Hargrave. It had been said in reference to the Bill, that the motives of the Corporations were interested—the word Corporation always suggested to the public mind the idea of jobbing. Well, the motives of the College of Surgeons of Ireland were to establish, sustain, and support their library, the finest medical one in the United Kingdom, and they had also, unassisted by the State, established an anatomical and pathological museum of great value. The Colleges of Surgeons of England and Ireland were doing incalculable services to the public. He did not propose to deal with the Bill in relation to the Council, or to the licensing powers of the Corporations. But the Bill also dealt with finance, and it made some provision for keeping up the museum and libraries, but none for the departmental expenses; his College spent 1,300*l.* a year under this head, with a fixed income of 300*l.* Where would the deficit come from? The Bill provided that all the funds of the branch councils were to be centred in the General Medical Council; if some amendment were made to that, this difficulty might be removed. The branch Council of England had a much larger income than that of either Scotland or Ireland, but if the men who registered in England, with only Scottish or Irish qualifications, were counted to those countries respectively, there would be much more nearly an equality. This was a real grievance, but it would be met by an amendment he should propose. Speaking of affiliation, he said that this as now proposed was a very different thing from that submitted to the Royal Commission. The latter had refused to sanction a scheme whereby a man, when he had passed his final examination, would be compelled to affiliate himself to one of the corporate bodies; the affiliation should

be at the commencement of his medical education, not at the close of it. He pointed out that in England 85 per cent., and in Ireland 90 per cent. were content with the single qualification given by the College of Surgeons, and never took a higher one. The very existence of the body he represented was imperilled by this Bill, as if it passed they must become bankrupt.

Mr. COLLINS seconded the motion, and he did so because the Bill had left out the two Apothecaries' Halls, thus ignoring the subject of pharmacy, which was of great importance for the general medical practitioner. On this point the branch Council of Ireland were unanimously agreed that the Bill was highly imperfect.

Dr. STRUTHERS did not sympathise with those who opposed the Bill, he should not oppose it if certain modifications were made. The Royal Commission were not unanimous in their report; he thought that the minority's report (Professor Huxley's) might be made the means of a harmonious settlement of all the difficulties; it was to the effect that, provided the Council approved the arrangements there might be more than one examining body. He was in favour of the divisional boards sending coadjutor examiners. He could not reconcile himself to the idea of sweeping away all the time-honoured and respected institutions. The new scheme would diminish the responsibility of the examiners, and do away with *esprit de corps*. The Universities were placed in an extremely awkward position in regard to this Bill, they could not be rolled into one board with the Corporations. The English Scheme of 1877 had made no provisions for the Universities taking part in the examinations; such a scheme was impossible in Scotland, where the Universities were not going to hand over all their candidates to the Corporations for examination. It would be injurious and wrong if they did so. The Universities were willing to have a divisional board, in which they would be the chief authority, and they were willing to accept outside examiners appointed by the divisional boards, and he would be very happy if they went further, for he would like to see a common board for the three Universities. But they would not consent to any scheme which required a duplicate examination; no Bill would pass which thrust another examination on the Universities. The acceptance clause, as it was called, had been very cleverly framed, but would the English Universities accept it? Unless this point was cleared up the Scottish Universities would not accept this Bill. After eulogising, at some length, the Scottish Universities and their mode of teaching, he said the Corporations ought to unite and get rid of these miserable half qualifications, and then they would be able to see what need there was for further legislation. This was not a Medical Council Bill, for the Council had never recommended to sweep away existing qualifications. He believed the Bill owed its origin to a story told by the late Dr. Parkes of the Army medical examination, when a candidate did not know where the liver was situated, but it was noteworthy that at the recent examinations all the candidates were found to be fully competent. He moved an amendment in favour of the appointment of coadjutor examiners.

Dr. QUAIN denied that the Bill had had any such origin as that suggested by Dr. Struthers; it was owing to the existence of the nineteen licensing bodies, and nothing else. It was an effort on the part of the Universities and Corporations to do away with this anomaly. The Board of Reference in the English scheme was composed by the Universities as well as the Corporations. The President of the Royal Commission had said that there were gross scandals which could not be allowed to exist, and hence the necessity for legislation. The partial amalgamations, such as were proposed, would not put an end to the nineteen licensing bodies. After reminding Dr. Struthers that the College of Physicians had been founded by the University men, he said that Scotland and Ireland were the cause of all this trouble; if they had accepted Lord Ripon's Bill, there would have been no need for the Bill now before Parliament.

The Rev. Dr. HAUGHTON said that Dr. Struthers came a year too late with his amendment. A year ago the University of Dublin had petitioned against the Bill on this point, but the Scottish and English Universities refused to join them, and it was too late now to refuse to accept the principle of the Bill, which would receive the support of both the Irish Universities in the House of Commons. He would like, however, to see better money arrangements made for the Corporations.

Mr. MACNAMARA said that last year the Government had said they would as soon give up the Bill as concede this point, which was diametrically opposed to the principle of the Bill. Those who refused to make the reasonable recommendations which he had suggested were the true enemies of the Bill.

Professor HUMPHRY said that there were two points in Dr. Struthers' remarks he would notice. The first was in reference to coadjutor examiners; he did not think that proposal would be looked upon with favour by the English Universities. They regarded the matter from a higher point of view, and did not consider their degrees as mere licences to practise. They had always guarded every privilege of that sort very carefully, and the proposal was not likely to meet with general acceptance. As to the second point, they might be willing to modify their system, or might in some degree consider themselves relieved, but the Universities would not accept this examination in lieu of their own.

Dr. HERON WATSON thought they were quite justified in discussing and expressing an opinion on the Bill. These Bills did not emanate from Scotland or Ireland; they originated entirely with the London medical journals. Turning towards the reporters' table, he said that what agreed with the scheme, and what they liked they reported; and what they did not like they burked. The Council ought not to be led away by the specious statements of journalists; he hoped they would have a reporter of their own, and publish a volume of transactions. He denied that the Bill was desired by the profession; last year between 200 and 300 petitions were presented against the Bill; but no mention of them was ever made in the medical journals. Dr. Watson concluded his remarks with an uncalled-for adulation of the medical schools in Scotland.

Dr. PETTIGREW said that the combination of the Corporations showed a spirit of progress, and if the Universities also combined, there would no longer be any need for legislation.

Dr. STRUTHERS then, by leave, withdrew his amendment, and Mr. Macnamara's motion, having been put, was carried by eleven votes to nine.

The Council then went into committee, and Mr. Macnamara repeated his remarks about the way in which, under the Bill, the money was to be dealt with. He was in favour of the money being capitalised, as proposed in the Bill, but thought that the surplus should be allotted to the Divisional Boards, not in proportion to the registrations, but according to the qualifications of those registering; these Boards should have power to apply the funds at their disposal to the departmental expenses, instead of, as was at present proposed, to the museums and libraries only.

Mr. SIMON disapproved of their having gone into committee on the Bill, and strongly deprecated the passing of any resolutions on the details of the Bill. The point raised by Mr. Macnamara seemed a reasonable one, and he thought it would be best dealt with by being informally discussed by a small committee.

After some further desultory remarks from various members, a committee was appointed to meet the following day at noon, and report to the Council at 2 o'clock.

EIGHTH DAY—APRIL 2ND.

The Money Question of the Medical Bill—The Medical Acts' Amendment Bill—The Dental Fund—The Time Limit at Examinations—Unqualified Practitioners—Conclusion of the Session.

Mr. MACNAMARA brought up the report of the committee appointed over night, to consider the money question of the Bill. The report recommended the insertion of a clause providing for the maintenence of the Corporations out of the surplus funds of the divisional boards. This was seconded by the Rev. Dr. HAUGHTON, who declared that as it stood the Bill was an inequitable one. The Irish Universities did not contribute anything to the funds, and therefore

had no claim to any of the money, and would never claim any of it.

Dr. STRUTHERS said that the University museums in Scotland were maintained solely out of the fees derived from the students.

After some remarks from Mr. MACNAMARA and Dr. QUAIN, Dr. STORRAR observed that this was not their business at all, the Council had not been consulted about the Bill, why should they pick out one single subject to express their opinion upon? Did it imply that they agreed with all the rest of the Bill? He did not see why this had been brought up at all.

Mr. SIMON pointed out that the Council were not asked to formally communicate with the Government.

Dr. STRUTHERS moved, and Dr. PETTIGREW seconded, an amendment, to substitute the word Board for the word Council in the clause of the Bill relating to the subject they were now considering. This was subsequently put, and lost.

Prof. HUMPHRY said, that Dr. Struthers seemed to think that none understood the Scottish Universities but himself; but he was mistaken, they understood them quite as well as he did. Under the Bill, the Universities would have no claim to the Board Fund derived from examinations, which was to be applied in defraying the expenses of those examinations, the expenses of the Board, and the expenses of the libraries and museums. The amount under this latter head was apportioned at a certain rate, and it was especially stipulated that the University students' fees were not to be used for this last purpose at all.

Dr. LYONS disapproved of their picking out a portion of the Bill in this way for discussion, it implied that they approved of the rest of the Bill. They would, moreover, lay themselves open to the risk of being accused of picking out one small, and not very dignified portion of the Bill, for such discussion. They ought not to compromise the Council before the Legislature, the profession, and the public by discussing only a pecuniary subject. He moved that the report be adopted that day six months. This was seconded by Dr. STRUTHERS.

The Rev. Dr. HAUGHTON opposed the amendment. The Bill as it stood was an inequitable one; they were only correcting an unintentional error which had slipped in, and which did not appear in the Bill of last year.

Dr. CHAMBERS did not approve of their discussing this question at all. When a person was dying he usually thought first of making his will, and so they ought to attend to questions of administration.

Mr. SIMON had opposed the appointment of a formal committee, and he thought the best plan for them to adopt to avoid the criticism, which had been foreshadowed by more than one speaker, would be to approve the report, and suggest to the various Corporations that they should take steps to make a representation to the Government on the subject. Dr. PYLE seconded this.

Dr. LYONS' amendment was then put and lost, and Mr. MACNAMARA having accepted Mr. SIMON'S proposal, this was put as a substantive motion and carried.

Mr. MACNAMARA then moved, and Dr. WATSON seconded, that the Council should resolve itself into committee to resume the consideration of some of the provisions of the Bill, but the Council had thought better of it since the previous day, and so this motion, which had been carried by eleven votes to nine, was now lost by five to nine, the numbers against the motion being the same each day. When this point had been thus decided a change seemed to come over the Council, the prospect of sitting for the rest of the week had been made to vanish, and from that minute everyone did his best to facilitate and not hinder the business before them.

Dr. HALDANE'S motion, "That the Executive Committee should consider whether any details of routine could be advantageously suggested for introduction into the present Bill," was agreed to without discussion.

Dr. STORRAR then moved, "That the Dental Fund should in future contribute one-sixth towards the general expenses instead of one-fourth as at present." The Dental Fund was becoming very low, and it was not to be desired that they should go bankrupt; the Council did not want to become rich at the expense of the Dental Fund, and as the English Branch Council had a large sum in hand, he proposed that they should pay the difference, leaving the General Council to contribute one-half as heretofore. The proportion of dentists on the Register was in round numbers one-sixth of the total, and he hoped his suggestion would be accepted. This was seconded by Dr. AQUILLA SMITH, and supported by Dr. QUAIN, who said that the number of dentists had not increased so fast as the medical practitioners, he considered that the dentists had always been treated with great liberality. This was carried *nem. con.*

Dr. QUAIN then proposed, that the Executive Committee be empowered to improve the structural arrangements of the Council-room as best they could. When it became known that what was in Dr. Quain's mind was to raise the floor of the room about five feet without making any alteration in the height of the room, the surprise of the members at what the Rev. Dr. Haughton, in an entertaining speech, characterised as a most astounding proposal, was perfectly genuine. Not even the opinion of so eminent an authority as Mr. Teale could reconcile them to the idea of surrendering about one-third of their cubic space. There were other considerations, too, against carrying out the suggestion; if they were going to be disbanded by the present new Bill, they might as well leave their successors to try and make the room habitable for themselves; and then, again, the property was not theirs, and they had not a long lease. Would it not be better not to waste their money and energies in trying to accomplish what many regarded as an impossible feat, viz., to convert an unwholesome room into a wholesome one? These arguments by various speakers carried the day, and Dr. Quain, who explained that he had no strong feeling in the matter one way or the other, modified his proposal into referring the matter to the Executive Committee for their consideration and report.

Dr. CHAMBERS then brought forward his motion, that at the final examination no man should be rejected on a *vivâ voce* examination, unless such examination should have lasted at least half-an-hour in the case of each examiner who found him deficient. After premising that there was a strong feeling amongst the public that the rejections were too numerous, and that the supply of medical men, especially for the poor districts, was deficient, he asked whether this was the fault of the schools or of the examining bodies. The teachers complained that good and industrious students were often rejected. It was difficult to get accurate statistics on this subject, but he instanced one metropolitan hospital where several house surgeons had been rejected. What was the cause of these rejections? The percentage of rejections varied from 47 per cent. at the examination in Edinburgh for the double licence, to 20 per cent. at the College of Physicians of London. Those in which the examiners were most limited as to time gave the highest percentage of rejections. He would free the examiner from not giving more than ten minutes to each candidate; but he might pass him in two minutes if he liked. After giving a graphic account of the mental and bodily state of a candidate just after he had been through the ordeal of a *vivâ voce* against time, he said he should be told that this scheme had always worked very well in the past; but to that he would object, in that examinations were very different now from what they were even 20 years ago, not only in extent but in quality.

Mr. TEALE seconded the motion. The large number of rejections was satisfactory in that it showed that the various bodies were not competing downwards with each other. Examinations, it should be borne in mind, were two-edged, so to speak; they spurred some men on, but others were only led into a bad style of work by them; all teachers were agreed that a large number were rejected who were good men. The College of Surgeons of England examination was a beautiful piece of machinery, its examiners were unsurpassed, and yet it plucked more good men than any other body did, owing to faults in the system. It would be for the good of education that the manner in which the examinations failed at present should be reduced to a minimum.

On the other side was a great array of speakers—Dr. MATTHEWS DUNCAN, Dr. SCOTT ORR, Dr. STRUTHERS, the Rev. Dr. HAUGHTON, Mr. SIMON, and Mr. MARSHALL. Their arguments were that it was very often possible to

reject a man in less than ten minutes if he displayed great ignorance, and several of them disapproved of any time limit one way or the other. Idleness was the chief cause of the rejections, which very often were partial, *i.e.*, in one subject only. A hard-and-fast rule of half-an-hour would be open to just the same objection as one of ten minutes. The Council had, two years previously, approved a resolution recommending a margin of time in doubtful cases.

Mr. MARSHALL, who was naturally looked to to defend the system attacked, did so with much vigour; he said that this resolution was to come into effect if the examiner was in doubt, when he would have to give the candidate an additional half hour, and if the four examiners were all in doubt they would have to give the candidate two hours' further examination. But their examiners never were in doubt, they never had the slightest hesitation as to how many marks they ought to give a man. As each man was examined in the same subject at two different tables, he practically had twenty minutes' examination in each subject. There were two reasons why house surgeons came to grief in their examinations, they had not sufficient time to read, and they took an exaggerated view of the extent of their own knowledge. A good examiner in ten minutes could find out whether a man was competent or not. He thought that the present time was not the one to introduce any changes, when the Bill, which had been so much vilified in that Council-room, was before Parliament; as if it passed, and he hoped it would pass, they would have to constitute new examining Boards, and could then consider any schemes sanctioned by the Council.

Dr. WATSON said, that at the College of Surgeons in Edinburgh men were examined *vivâ voce* for forty minutes in the more important subjects, and for twenty minutes in the less important ones.

Dr. LYONS appealed to Dr. Chambers to withdraw his motion; he should be very sorry to see it negatived, and he thought a great deal had been gained by the debate which had taken place upon it. By leave the motion was then withdrawn.

A communication from the Liverpool Medical Defence Association having been received, Dr. CHAMBERS moved a resolution, to the effect that the Executive Committee should make a representation to the Government on the matter of the employment of unqualified men by registered practitioners, which, having been amended in form by Mr. SIMON, was carried.

The only other business that calls for notice, was the reappointment of Dr. Acland as President from the 18th of July next, if the Council were not sitting at the time, until their next meeting. The reasons for this step were very clearly put by Sir HENRY PITMAN, and it was at once agreed to.

The PRESIDENT, in reply, briefly alluded to their position in regard to the Bill. If it passed they would have some formalities to go through in handing over their work to their successors; if it did not pass, it would be their duty to meet in the autumn, and seriously consider what steps they ought to take when five successive Bills introduced by different Governments had failed.

After they had all thanked each other for the way in which they had performed their respective duties, the minutes of the meeting were read, and the Session was at an end.

MEDICAL NEWS.

MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE SOCIETY.

Meeting of the Provisional Executive Committee.

AT a meeting of this Committee, held on 27th ult., the secretary presented his report, showing a total of 333 members, and receipts of the preliminary entrance fees, &c., to the amount of 228*l.* 2*s.* 6*d.* A communication was read from Mr. Gilbert Walker, the editor of the *British Journal of Dental Science*, raising the question whether dental surgeons or dentists, either qualified or unqualified, or both, would be eligible as members of the Society. The question, which was thought to be an important one' was discussed at some length, and the following resolution, proposed by Mr. Sibley, was unanimously passed: "That any qualified registered dentist, holding the diploma of L.D.S., of the Royal College of Surgeons of England, Scotland, or Ireland, be eligible as member of the Society." The Secretary was desired to forward a copy of the resolution to Mr. Walker, with a request that he would bring it before the notice of the dental profession, through the columns of the *British Journal of Dental Science*. Other business was disposed of, and the meeting adjourned.

DEMONSTRATION OF PATHOGENIC MICRO-ORGANISMS.

A VERY distinguished audience assembled at the Parkes Museum, on Thursday evening, March 27th, to witness Mr. Watson Cheyne's "Demonstration of Pathogenic Micro-Organisms." The chair was taken by Sir Joseph Lister, Bart. After stating that the great group commonly called bacteria might most conveniently be sub-divided into four classes:—(1) Micrococci (round bodies), (2) Bacteria (small oval or rod-shaped bodies), (3) Bacilli (large rod-shaped bodies), and (4) Spirochætia and Spirilla (rods spirally twisted), and dwelling on the great variety as well as importance of the various parts played by this great group in the economy of nature, Mr. Watson Cheyne demonstrated numerous micro-photographs taken by Dr. Robert Koch, as well as some drawings, by means of a lime-light apparatus. He observed that great differences existed among the various bacteria in their behaviour towards the human body, some could be injected without causing any injury, others could not grow in the living body, but could develop in dead portions of tissue, and the secretions of wounds, giving rise to poisonous products. The true pathogenic organisms were able to attack the living body and multiply in it; they included the organisms which found entrance through some wound giving rise to the traumatic infective diseases; and others which could obtain entrance without any observable wound. Further, certain organisms, such as the *b. anthracis*, were capable of growing outside the body in dead organic substance, while others, such as the *b. tuberculosis* were apparently only capable of development in the living organism or under artificial conditions which reproduced to some degree those existing in the tissues of warm-blooded animals, though capable of long retaining their vitality in the dry state. With regard to the traumatic infective diseases, he thought that the most absolute proof had been furnished that the bacteria found in them, and nothing else, were the causes of these diseases; to establish such a proposition it was necessary that an organism of a definite form, and with definite characteristics, should always be found in the blood or in the affected part; the blood or the affected part when inoculated into another animal of the same species must produce the same disease; when the blood or the affected part was inoculated on a suitable soil outside the body the micro-organisms grew and must be indefinitely propagated in similar soil. When in this manner the organisms had been separated from the remains of the materials in which they were imbedded, their inoculation in an animal must produce again the same disease. the same organisms being found in the diseased parts, These conditions had now been fulfilled with regard to anthrax, septicæmia of the mouse, erysipelas, tuberculosis, glanders, and acute pneumonia. With regard to typhoid fever, relapsing fever, cholera, and ague, the evidence was very strong, but not conclusive. Mr. Watson Cheyne concluded by dwelling on the importance of surrounding circumstances, chiefly those summed up in the phrase, unhygienic conditions, as concomitant causes of disease by preparing the blood for the attacks of these micro-organisms.

The Chairman, Sir Joseph Lister, dwelt upon the important fact that the organisms which produced particular diseases were only able to develop under very special conditions, instancing the bacillus, which caused septicæmia in the house-mouse, but which was unable to produce any deleterious effects on the field-mouse. He thought this fact, which showed that the very slight difference in the

blood of these two animals was sufficient to alter the conditions favourable to the development of the bacteria, might prove of very great interest, as it was possible to conceive that by the administration of some medicines, sufficient alteration might be produced in the blood of the human system to kill off, or to prevent the development of, any special bacteria, on the first appearance of the symptoms of the disease in the patient. Sir Joseph Lister concluded by referring, at some length to the importance of Pasteur's researches on modified virus.

Prof. Humphry paid an eloquent tribute to the great work which Sir Joseph Lister had already achieved, and looked forward with great hopes to the future of medicine.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 1st and 2nd instant, and when eligible will be admitted to the pass-examination, viz. :—Messrs, H. E. Hackett; A. B. Crowther; Harry Harrop; George O'Kill; J. M. Johnson; N. C. Haring, and W. K. Walls, Manchester. Henry Skelding; E. C. Andrews; William Clarke; Charles Brook; E. P. Manby, and B. de B. Carey, F. M. Ogilvie, Cambridge. F. W. Halliday; C. W. Turner; C. F. M. Althorp; F. W. Thornton; H. A. Smith and Harold Hebblethwaite, Leeds. F. W. Bloomer; A. H. Nott; G. L. Hill, and J. H. Blakeney, Birmingham. G. A. Syme, Melbourne. W. F. Brook and Ernest Solly, St. Thomas's Hospital. D. P. Gaussen and W. G. Bigger, Belfast. O. P. Beater, Dublin. John Girling, London. B. B. Grayfoot; David Hepburn and J. M. Caw, Edinburgh. J. W. Dalgliesh, Newcastle-upon-Tyne. J. H. Abram; John Cunningham, and A. A. Kanthack, Liverpool. W. L. Dickinson, St. George's Hospital. W. C. Swayne, and R. F. W. Tucker, Bristol. Seven candidates were referred for three months.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 27, 1884 :—

Aspinall, John, Ash Cottage, Hindley.
Averill, Charles, Stafford.
Caleb, Clement Cornelius, Allahabad, India.
Cropley, Henry, Swaton, Lincolnshire.
Davis, Edwd. Sandom Stone, Fowey, Cornwall.
Forster, Thos. Fredk., Brampton, Cumberland.
Freeland, Freeland John, Antigua, West Indies.
Hopkins, Jno. Walter, The Infirmary, Ryde.
Leech, Priestley, Linden Road, Halifax.
Moore, Edwd. Head, Falmouth.
Paul, Edmund Wm., Wearne Wyche, Langport.
Stericker, Geo. Fredk., Pickering.
Woolmer, Shirley Lawrence, The Poplars, Kingswood, Bristol.

Army Medical Department. — Deputy-Surgeon-General R. Wolseley has been ordered to Aldershot to assume the duties of Divisional Sanitary Officer in succession to Deputy-Surgeon-General J. J. Thompson, who will proceed to Dublin for duty as Principal Medical Officer of that district. Surgeon-General W. A. MacKinnon, C.B., has been appointed a member of the Committee on Movable Field Hospital Equipment.

Army Medical School, Netley.—The 48th Session of the Army Medical School was opened on the 2nd instant, when 21 gentlemen joined for the Home Service, and five for the Indian. The introductory address was delivered by Professor Maclean, who began with a graceful and touching allusion to the death of the Duke of Albany. The Professor welcomed the new surgeons on probation, and explained the objects of their sojourn at Netley, pointing out the advantages of a military career, but warning them at the same time of the obstacles their best efforts may have to encounter, from the indiscriminating blame sometimes heaped upon the Department, for shortcomings for which it ought not to be held responsible. He illustrated this by the experience of Robert Jackson in former days, and by the unmerited obloquy thrown upon the medical officers in the Egyptian campaign of 1882. The Professor wound up a most eloquent address with an expression of hope that the stay of the surgeons on probation at Netley might be both profitable and pleasant. Surgeon-General Murray and the medical and professional staff were present, as well as Dr. Dayman, President of the Southampton Medical Society, &c. The occasion was rendered further interesting by the fact that it is the first time that the school has been opened at Netley since the post of Governor and Commandant of the Royal Victoria Hospital has ceased to be. From this time forth the Surgeon-General is sole responsible and administrative head of the establishment, and a galling and vexatious grievance has been at length removed. The excellent results which have followed a similar change in the hospitals of the Royal Navy are not likely to be wanting at the head-quarters of the sister service.

Anderson's College. — The winter session of the Medical School was brought to a close on the 27th ult. with a distribution of prizes in the theatre of the institution.

University College Hospital.—At the annual general meeting of subscribers, held on Monday, it was stated that the year had closed with a debt of 8,500*l*. This being the jubilee year of the hospital, a great effort will be made to place the funds upon a more satisfactory footing, and with this object in view the Lord Mayor has consented to preside at a public meeting to be held at the Mansion House on June 16th, when several distinguished personages will attend in support of the appeal for funds.

The Johns Hopkins Hospital, Baltimore.—Already 2,400,636 dollars have been spent upon this hospital, and it is estimated that 400,000 more will be required for its completion. It is expected that it will be opened before October, 1886.

The Grosvenor Hospital for Women and Children. —This small hospital, hitherto known as the "Vincent Square Hospital," has been in some measure reorganised, and henceforth, with the concurrence of the Duke of Westminster, will be known as the "Grosvenor Hospital." The annual meeting was held on Friday last, under the presidency of Lord Shaftesbury.

Abernethian Society, St. Bartholomew's Hospital. —At the annual general meeting of this Society on March 20th, the following gentlemen were elected officers for the ensuing year:—Presidents, Dr. W. J. Collins, Mr. T. W. Shore. Vice-Presidents, Mr. N. J. Collyns, Mr. C. O. B. Harding. Hon. Secretaries, Mr. C. P. Crouch, Mr. A. Lyndon. Additional Committeemen, Mr. F. Andrews, Mr. H. Huxley.

Death from the Bite of a Monkey.—Last week an inquest was held on the body of Captain G. Butler, aged 68, who had died in University College on the 28th ult., from blood-poisoning, following the bite of a monkey, inflicted three weeks previously. The deceased was suffering from diabetes, and the wound was gangrenous when he was received at the hospital.

Small-pox in India.—Small-pox continues to rage with great violence at Madras, and for some time past the weekly mortality returns have shown a death-rate from small-pox and other causes of about 85 per 1,000 per annum. The mortality is mainly among unvaccinated children. An act making vaccination compulsory has been passed by the local council, and the Viceroy's assent obtained by telegraph. It is hoped it may have the effect of checking the disease. Small-pox is also causing great mortality in Rangoon, and in several cities of Upper India. It is described as above the average in Calcutta, and appears to prevail to a greater or less extent in almost every large city in the country.

Death from Chloroform.—A death from chloroform is reported from Portsmouth. The anæsthetic was administered on a Skinner's inhaler to a middle-aged man, a portion of whose tongue was about to be removed. The inhalation lasted six minutes, when the patient became suddenly pulseless, and all the measures taken to restore life were ineffectual.

Hird Testimonial.—The testimonial, consisting of a service of plate, which has been subscribed for by the friends of Mr. Francis Hird, will be presented to him at the Charing Cross Hospital Medical School, on Tuesday next, at 4.30 o'clock. Professor Huxley will occupy the chair.

APPOINTMENTS.

BRANFOOT, H. S., M.B.—Assistant Physician to the Sussex County Hospital, *vice* J. Rutter, M.D., resigned.

DAVIDSON, P., M.A., M.B.—Assistant Medical Officer to the Infirmary for Children, Liverpool, *vice* J. McClelland, M.D., promoted.

EDINGTON, J. E., M.R.C.S. Eng.—Medical Officer to the Brandes Burton District, Skirlaugh Union.

FITCH, R. A., M.R.C.S.—Resident Surgeon to the Birmingham General Dispensary, *vice* Harry Green, M.R.C.S., resigned.

HARPER, GERALD, M.B.—Assistant Physician to the Chelsea Hospital for Women.

JACKSON, A., M.R.C.S.—Assistant House Surgeon to the Hull General Infirmary, *vice* E. F. Potter, M.R.C.S., resigned.

MOULLIN, C. W. MANSELL, M.D. Oxon, F.R.C.S.—Demonstrator of Anatomy at the London Hospital Medical College, *vice* Mr. Treves.

RUTTER, J., M.D.—Physician to the Sussex County Hospital, *vice* E. F. Fussell, M.B., resigned.

TOVEY, R. N., L.R.C.P. Edin., L.F.P. & S. Glas.—Medical Officer to the Knightwick District, Martley Union.

WHARRY, R., M.D.—Physician to the Westminster General Dispensary.

WINDLE, C. A. B., M.D., B.Ch. Dublin.—Resident Medical Officer to the General Hospital, Birmingham, *vice* J. W. Bond, M.D., resigned.

VACANCIES.

CASTLE WARD UNION.—Medical Officer for the Whatton District, in succession to Mr. M. Walker, resigned. Area, 16,981 acres. Population 1,273. Salary, £15 per annum.

CHESTERFIELD UNION.—Medical Officer for the Eckington District, in succession to Mr. J. T. Jones, resigned. Area, 8,673 acres. Population, 13,935. Salary, £40 per annum.

DEVONSHIRE HOSPITAL, BUXTON.—Medical Officer. (*For particulars see Advertisement.*)

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary, £100 per annum, with furnished rooms, coals, and gas. Candidates' names must appear on the Medical Register, as being possessed of a Medical and Surgical Qualification, and they must produce evidence of good moral character. Private practice prohibited. Applications, with testimonials, to be sent to the Honorary Secretary, 10, South Bailey, Durham, on or before April 15th.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary, £100 per annum, with furnished house, &c. Candidates' names must appear on the Medical Register, as being possessed of Medical and Surgical qualifications, and they must produce evidence of good moral character. Private practice prohibited. Candidates conversant with the Welsh language preferred. Applications, with testimonials, to be sent to the Secretary, on or before April 15th. The election will take place on April 30th.

GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

JARROW PROVIDENT DISPENSARY.—Qualified Practitioner. (*For particulars see Advertisement.*)

LICHFIELD UNION.—Medical Officer for the Yoxall District, in succession to Mr. Greenwood, resigned. Area, 7,780. Population, 1,684. Salary, £25 per annum.

LINCOLN UNION.—Medical Officer for the Sixth District, in succession to Mr. H. Gilbert, resigned. Salary, £25 per annum.

MORPETH DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with furnished apartments, coals, and gas. Candidates must be duly qualified, and unmarried. Applications and testimonials to be sent to Mr. D. W. Greenwood, Morpeth, on or before April 5th.

ROYAL FREE HOSPITAL, GRAYS' INN ROAD, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

SEVENOAKS UNION.—Medical Officer for the First and Fourth Districts, in succession to Mr. R. M. Rathill, resigned. First District—Population, 194. Salary, £75 per annum. Fourth District—Area, 13,538 acres. Population, 5,013. Salary, £100 per annum.

STRATTON UNION.—Medical Officer for the South District, in succession to Mr. J. H. Tuke, resigned. Area, 27,430 acres. Population, 2,907. Salary, £60 per annum.

THE BIRMINGHAM AND MIDLAND COUNTIES ORTHOPÆDIC AND SPINAL HOSPITAL. Honorary Assistant Surgeon. (*For particulars see Advertisement.*)

DEATHS.

COE, THOMAS, F.R.C.S., at 71, Guildhall-street, Bury St. Edmund's, on March 26th, in his 67th year.

HARDING, JOHN, M.B., at 54, Lancaster-road, on March 19th, aged 75.

LASHMAR, C. M., M.D., formerly of Croydon, at Dover, on March 28th, in his 81st year.

MCDONALD, T. W., I.G.R.N., F.R.C.S., at Landscore Villas, Teignmouth, Devon, on April 1st, aged 80.

SCHULHOF, MAURICE, M.D., at 46, Brook-street, Grosvenor-square, on March 27, aged 68.

THOMAS, EDWARD TEMPLE, L.R.C.S., at Chatham, on March 25th, aged 36.

NOTES, QUERIES, AND REPLIES.

THE ROGERS TESTIMONIAL.

The following Subscriptions have been received.

Dr. Danford Thomas, Coroner for Central Middlesex, £1 1*s.*; Dr. Hawkley, 31, Grosvenor Street, £1 1*s.*; G. Terry, Esq., Mills, £1 1*s.*; Dr. G. Barnes, Ewell, 10*s.* 6*d.*; Thos. Davies, Esq., Colwyer Bay, 5*s.*; A Pauper, 2*s.*

Mr. J. Wickham Barnes requests all subscribers who have not yet sent him their promised donations, to do so at their earliest convenience.

THE WHEATLEY MEMORIAL FUND.

[TO THE EDITOR OF THE MEDICAL TIMES.]

DEAR SIR,—I enclose you a list of the subscribers to the funds, so far as their subscriptions have been received. I shall be much obliged if you will give space to its insertion in your columns. The amount received is at present far below the sum required to make the needful provision for those dependent on the late Librarian of the Royal Medical and Chirurgical Society.

April 1st, 1884.

I am, dear Sir, yours, &c.,

BERKELEY HILL,

Hon. Sec., Wheatley Memorial Fund Committee.

Thomas Boone, Esq., £50; The Clinical Society, £25; Dr. William Wood, £25.

The following have sent ten guineas each:—Sir Andrew Clark, Bart., M.D.; T. B. Curling, Esq.; J. Cooper Forster, Esq.; Sir Prescott Hewett, Bart.; Berkeley Hill, Esq.; and Sydney Williams, Esq.

The following have sent five guineas each:—Morrant Baker, Esq.; J. E. Erichsen, Esq.; Dr. Wilson Fox; Dr. Gervis; Dr. Habershon; Christopher Heath, Esq.; J. W. Hulke, Esq.; Dr. Hughlings Jackson; Sir William Jenner, Bart.; Dr. George Johnson; John Kingdon, Esq.; John Langton, Esq.; John Marshall, Esq.; Sir James Paget, Bart.; Dr. Priestley; W. S. Savory, Esq.; Thomas Smith, Esq.; Sir Henry Thompson; Dr. Wegg; and Sir Erasmus Wilson.

The following have sent five pounds each:—Sir William Bowman, Bart.; Dr. Matthews Duncan; H. Cæsar Hawkins, Esq.; and Dr. Douglas Powell.

The following have sent three guineas each:—Dr. Dyce Duckworth; Alexander Shaw, Esq.; John Wood, Esq.; and Dr. Routh.

The following have sent two guineas each:—Dr. R. Barnes; Dr. Cayley; Dr. Duffin; Dr. Finlay; W. H. Flower, Esq.; J. G. Forbes, Esq.; Jonathan Hutchinson, Esq.; Dr. Stephen Mackenzie; J. H. Morgan, Esq.; E. Nettleship, Esq.; Dr. W. Ogle; Dr. O'Neil, Lincoln; T. Pickering Pick, Esq.; George Pollock, Esq.; Dr. Sieveking; John Simon, Esq.; Dr. Symes Thompson; and Dr. Charlewood Turner.

The following have sent one guinea each:—J. E. Adlard, Esq.; Dr. Appleton; John Birkett, Esq.; Dr. John Candy; Dr. Champneys; Dr. Fairlie Clarke; F. Le Gros Clark, Esq.; R. H. Clay, Esq.; Dr. Cleveland; H. Clutton, Esq.; H. Curling, Esq.; Dr. Horace Dobell; Dr. Langdon Down; Dr. Ewart; Sir Joseph Fayrer; Dr. Gowers; Reginald Harrison, Esq.; Dr. Herman; Dr. Graily Hewitt; George Knapton, Esq.; A. W. Leachman, Esq.; Dr. MacFarlane; F. Mason, Esq.; Dr. Gueneau de Mussy; Surgeon-Major Myers; Dr. T. A. Nelson; T. Niven, Esq.; T. L. Read, Esq.; Dr. F. T. Roberts; Sir Edwin Saunders; Dr. Sedgwick; Dr. Felix Semon; Dr. Sharkey; Dr. Sieveking; John Simon, Esq.; Dr. Pye Smith; Dr. Sutherland; Dr. Trend, Southampton; W. W. Wagstaffe, Esq.; C. Stuart Watkins, Esq.; H. Watney, Esq.; Spencer Watson, Esq.; Dr. Dawson Williams; Dr. Charles West; and Messrs. Wodderspoon & Co.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In reply to Dr. Daunt's numerous questions, will you allow me to point out that a simple reference to the Medical Digest would have answered each; Section 1,756, 3, showing that electricity has been used to treat elephantiasis; Section 662, 4, pointing to the use of glonoin *vel* nitro-glycerine in asthma; Section 27, 4, establishing the value of picrotoxin in idrosis; and Section 374, 4, giving a fund of information regarding the use of hyoscyamin in various diseases.

I am, Sir, &c.,

RICHARD NEALE, M.D. Lond.

Royal College of Surgeons, Primary Examinations.—The following were the questions on Anatomy and Physiology which were submitted to the 256 candidates for the diploma of membership of the Royal College of Surgeons on the 31st ultimo, when they were required to answer four, and not more than that number, out of the six following questions on ANATOMY, from 1 to 3 o'clock p.m.:—1. Describe the dissection down to the bones of that portion of the palm of the hand which lies to the ulnar side of a line drawn from the middle of the annular ligament to the cleft between the ring and middle fingers. 2. Describe the course and relations of the veins which terminate in the inferior vena cava. 3. Enumerate the various kinds of joints met with in the human body, and give examples of each kind. 4. Describe the structures filling in an intercostal space, and give their relative positions. 5. Describe the attachments, connexions, relations, and actions of the biceps flexor cubiti. 6. Give a dissection displaying fully the external circumflex artery of the thigh and its branches.

The following were the questions on PHYSIOLOGY, to be answered from 4 to 6 o'clock p.m.:—1. Describe the excretory functions of the skin. What relations exist between these

functions and those of the lungs and kidneys? 2. Describe the different forms of peripheral nerve-endings in man, and state the functions of each. 3. What are the evidences of the circulation of the blood? State the forces by which that circulation is maintained. 4. Describe the formation of the placenta. What are the functions of this organ? 5. Describe the blood supply to the different parts of the kidney, and the relation of this supply to the secretion of urine. 6. Describe the mechanism of voice and speech.

COMMUNICATIONS RECEIVED—

THE HON. SECRETARY, WHEATLEY MEMORIAL FUND, London; Dr. H. HANDFORD, Nottingham; Mr. T. M. STONE, Wimbledon; THE PUBLISHER, AUSTRALIAN MEDICAL GAZETTE, Sydney; THE EDITOR, BOMBAY GOVERNMENT GAZETTE, Bombay; THE REGISTRAR-GENERAL, Edinburgh; THE SANITARY COMMISSIONER, Punjab; Sir EDMUND LECHMERE, London; THE SECRETARY, CLINICAL SOCIETY, London; THE SECRETARY, POOR LAW OFFICERS' ASSOCIATION, London; THE SECRETARY, NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE, London; THE SECRETARY, MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE SOCIETY, London; THE DIRECTORS, PATENT LIQUID FIRE-PROOF CYANITE CO. (LIMITED), London; THE SECRETARY, THE PARKES MUSEUM, London; THE COMMITTEE OF THE HIRD TESTIMONIAL FUND, London; Miss SHILLINGTON, London; Dr. R. EARDLEY WILMOT, Leamington; Dr. TIRARD, London; Mr. CLUTTON, London; THE REGISTRAR-GENERAL, GENERAL MEDICAL COUNCIL, London; Mr. N. H. NIXON, London; THE EDITOR, BRITISH MEDICAL JOURNAL, London; THE SECRETARY, ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; THE SECRETARY, ARMY MEDICAL SCHOOL, Netley; Dr. R. NEALE, London; THE HON. SECRETARY, EPIDEMIOLOGICAL SOCIETY, London; THE SECRETARY, MICROSCOPICAL SOCIETY, London; Dr. CAMPBELL BROWN, Liverpool; Mr. H. C. LEA, Philadelphia; THE CHAIRMAN, LIVERPOOL MEDICAL DEFENCE ASSOCIATION, Liverpool; Mr. W. J. WALSHAM, London; Mr. J. T. W. BACOT, Seaton, Devon; Mr. GURNER, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Messrs. CASSELL & Co. (LIMITED), London; Mr. EDMUND OWEN, London; Dr. R. EUSTACE, Warrenpoint, Co. Down; THE HON. SECRETARY, ABERNETHIAN SOCIETY, London; THE HON. SECRETARIES, ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; Mr. BECHER, London; Dr. W. SQUIRE, London; Dr. CURNOW, London; Dr. HUGHLINGS JACKSON, London; Dr. H. COLLIER, Yarmouth; Dr. SHELLY, Hertford; Dr. COATES, London; Dr. Wolfe, Glasgow.

BOOKS RECEIVED—

A Social Experiment, by T. W. Russell—Annual Report of the Sanitary Condition of Nottingham for 1882—Annual Report of the Central Lunatic Asylum at Hanwell—Elementary Physiology, by Dr. G. T. Bettany—Food and Feeding, by Sir Henry Thompson, F.R.C.S.—The Life and Work of St. Paul, by F. W. Farrar, D.D. Part 27.—Cremation, by J. Comyns Leach, M.D., B.Sc.—Annual Report of the County and City of Worcester Pauper Lunatic Asylum — The Encyclopædic Dictionary, Cassell and Co. (Limited). Part 3.—Medicinische Bibliographie und Anzeiger, von Arthur Würzburg—Report on the Health, Sanitary Condition, &c., of Kensington, from February 24th to March 22nd.—Address in State Medicine, by Thomas Wrigley Grimshaw, M.A., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt fur Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt fur die Medicinischen Wissenschatten—Berliner Klinische Wochenschrift—The Planet—Weekblad—The Journal of Mental Science—The Therapeutic Gazette—The Detroit Lancet—The Bristol Medico-Chirurgical Journal—The Boys' Own Paper—The Leisure Hour—Friendly Greetings—The Girls' Own Paper—The Sunday at Home—The Archives of Pediatrics—The Medical Temperance Journal—Maryland Medical Journal—Ophthalmic Review—The Polyclinic—Archives Générales de Médecine—Birmingham Medical Review—Caslon's Circular—Edinburgh Medical Journal—Canada Medical and Surgical Journal—The Analyst—The Veterinarian—The Practitioner—The Monthly Homœopathic Review—Centralblatt für Therapie—An Ephemeris of Materia Medica, &c.

APPOINTMENTS FOR THE WEEK.

April 5. Saturday (this day).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Capt. Abney, "Photographic Action."

7. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON.—Dr. Joseph Coats (Glasgow), on "Compensatory Hypertrophy of various Organs;" Dr. Clement Godson, on "Retroversion of the Gravid Uterus."

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m.—Meeting, at 40, Leicester Square. Casual Communications by Messrs. Storer Bennett, J. H. Mummery, F. N. Pedley, E. Lloyd Williams; Mr. A. S. Underwood will read a Paper on "The Influence of Micro-Organisms in the Production of Caries."

ROYAL INSTITUTION, 5 p.m.—General Monthly Meeting.

8. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 p.m.—The following Papers will be read:—John Harley, M.D. Lond., F.R.C.P., "The Pathology of Myxœdema as Illustrated in a Typical Case." One of Dr. Harley's patients with myxœdema will be present for examination. F. B. Jessett, F.R.C.S., "An Enquiry into the Cause of the Increase of Cancer in England and Wales."

9. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 p.m.—Meeting. Bolton G. Corney, Esq., will read a Paper on "The Behaviour of Certain Epidemic Diseases in Natives of Polynesia, with especial reference to the Fiji Islands."

HUNTERIAN SOCIETY.—7.30 p.m.: Council. 8 p.m.: Dr. Stowers, "Sequel to a Case of Paget's Disease of the Nipple;" Mr. Rivington, (1) "Case of Recent Fracture of the Patella, treated by Wire Suture;" (2) "Case of Wound of Knee-joint;" Dr. Herman, on "Prolapse of the Pelvic Floor, without relative Displacement of the Uterus."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m.—Meeting. Dr. W. B. Carpenter will read a Paper on "Binocular Vision with the Microscope."

10. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

11. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

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THE MEDICAL TIMES *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES
AND GAZETTE.

No. 1763. LONDON, SATURDAY, APRIL 12, 1884.

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THE ÆTIOLOGY OF PHTHISIS.

Being the Lumleian Lectures Delivered at the Royal College of Physicians,

By J. ANDREW, M.D., F.R.C.P.,
Physician to St. Bartholomew's Hospital.

Lecture I.—[Abstract.]

The lecturer said that he should not attempt an exhaustive treatment of so vast a subject as the ætiology of phthisis, but would regard it from one comparatively narrow point of view, viz., the communicability of the disease immediately or mediately from the sick to the healthy. Was phthisis contagious or not? He would at once confess himself to be an anti-contagionist, and admit that his argument must have been more or less biassed by its being framed rather to attack a given proposition than to establish any other in its place. This question of contagion, indeed, wherever it arose, whether in the case of phthisis or of other diseases, had rarely been discussed with judicial calmness. At the very outset of the enquiry it was necessary to give a definition of phthisis—to state the sense which he himself attached to the term. By phthisis, he meant a specific disease, characterised, anatomically, by a new growth, which might wear very different aspects at different periods of its existence, and in different organs or tissues, especially, according as it was found in the interior of organs, or as it presented upon a free serous, mucous, or cutaneous surface. The new growth might occur in almost any organ or tissue, but did so most frequently in the lymphatic tissues and in the lungs. Generally it proceeded from numerous different points, the growths from which might or might not coalesce, thus leading, *e.g.*, in the lungs to two different types of lesion, viz., miliary tuberculosis, and to more or less extensive areas of infiltration and consolidation. Further, in the case of the lungs, this new growth did not follow the general law of distribution or localisation of pulmonary diseases. It had some special affinity for the apices, and descended in levels, attacking the upper portion of the lower before it had reached the base of the upper lobes. It killed by the disturbance and disorganisation which its presence worked in some vital organ; its clinical history was that of a general rather than that of a local disease; the constitutional symptoms, especially in the earlier stages of the disease, bearing no definite relation to any ascertainable structural lesions. He believed, in short, that consumption, phthisis, or tuberculosis was a specific disease, occurring in both acute and in chronic forms; that it was not a mere catarrhal inflammation, a peribronchitis, a chronic apex-pneumonia, but a disease as distinct in its nature as scarlatina, or as gout.

The recent discovery of the tubercle-bacillus had added to the old stock of arguments a fresh fact of the utmost importance, and had been looked upon by many

as a conclusive proof of the doctrine of contagion in its most extreme form, while a strong tendency had been shown to treat the older views and observations with contempt. In order to estimate the influence of our knowledge of the bacillus upon the doctrine of phthisis, he would endeavour, first, to state the position of that doctrine with the value of the facts on which it was based, prior to Dr. Koch's discovery; and secondly, to discuss the modifications which that discovery might render necessary in the older views.

Dr. Wm. Budd, of Clifton, in his famous Memorandum on Phthisis, had stated certain striking facts, and had quoted authorities to show that in the case both of the South Sea Islanders and the native American Indians, phthisis was unknown until the aborigines came into intimate contact with Europeans, while in the case of the negro races of Africa, the disease was very fatal on the sea-board when the blacks had come into intimate relations with the whites, but did not exist in the interior. It was impossible, however, the lecturer said, to establish these statements. The oft-quoted authority of Dr. Rush, when analysed, was very far indeed from being decisive of the question of the importation of phthisis into North America. He gave not the slightest hint of believing in its foreign origin, but regarded it, even in its incidence on the whites, as one of the results of advancing civilisation. Moreover, phthisis might easily exist among barbarous races, and escape the notice of even the most competent observer. A savage stricken with phthisis would rarely live to develop the later and more striking features of the disease. The value of his life in the earliest stage would be a vanishing quantity, like the "prairie value" of land. With the first serious failure in strength of lung or of muscle, the struggle for existence would be promptly decided against him. And thus civilisation, with its care for the sick and weakly, would sometimes appear to have introduced that which it had only preserved, and, so to speak, cultivated. An almost necessary consequence of this artificial survival of the unfit would be the spread of the phthisical taint, in virtue of its hereditary character (to say nothing of the unwholesome influences of a nascent civilisation), and a great increase, both absolute and relative, in the number of cases of phthisis. In the Pacific, the first European visitors of many of the islands were certainly not persons well qualified to conduct a very difficult scientific enquiry, and there were many statements on either side. A friend, a member of the Melanesian Mission, who had known many of the islands well for some years past, assured him (the lecturer) that he believed consumption to have existed among them before the arrival of Europeans. Again, in the case of Africa, although very few white men penetrated into its interior, regular caravan routes had existed for ages, by which any disease so contagious as some believed phthisis to be must have been spread over the whole interior, even before the time of the Romans. Thus, the distribution of phthisis in Africa, its prevalence on the coast, and its rarity inland; its being confined to certain parts only of wide regions traversed for centuries by largely used trade routes, was a strong argument, not for, but against, its contagiousness. Moreover, in other countries to which phthisis had been long known, and where no question of restricted intercourse arose, it still prevailed to a much greater extent near the sea than in the interior.

Granted, however, for the sake of argument, that it could be established as a certain fact that phthisis had made its appearance among a certain number of savage tribes after the arrival of Europeans, and that it was unknown before that event, surely the imputation of a new and specific morbific germ was not the only rational explanation which could be offered. If for the time we adopted the view that phthisis was a diathetic disease, the outcome of unhealthy conditions of life, then it was well known that the first contact of civilisation with barbarism subjected the savage to many most unwholesome influences. He was tempted to indulge to excess in alcoholic liquors, often of the vilest quality, and he forsook his old free life of hunting or fishing for one of comparative indolence. What room for surprise was there, if, under such changed circumstances, he became liable to new forms of diathetic disease? If, however, we accepted the doctrine, the true doctrine, that phthisis required for its production, not only predisposition, but also the action of an external agent, probably organic, then the supposition that the impaired vigour of the savage has subjected him to external agents, always present although hitherto impotent, was at least as plausible as that of an "imported germ." This historico-geographical argument, which had been regarded as so decisive of the whole question, was a most insidious one; lying outside ordinary medical studies, it was often stated confidently, and accepted thoughtlessly. But he trusted he had shown good reason for believing that the facts had come to us in so distorted a form as to be worse than useless; for, while they could be made to harmonise readily with either the diathetic or the contagion theory, they were absolutely worthless for the proof of either.

Turning now to the influence of certain conditions on the prevalence of phthisis, he would endeavour to indicate the kind and value of the evidence involved, and its bearing on the doctrine of contagion. Phthisis existed in all climates—tropical, temperate, and arctic—apparent exceptions serving only to bring into strong relief the much greater importance of local than of general influences. It was more prevalent in the tropics; but arctic rigors did not prevent it. At Moose, or Moosonee, a trading station on Hudson's Bay, enjoying a typical arctic climate, the statistics from 1811 to June, 1882, showed that of 162 entries of the cause of death, 68 were due to consumption, almost all occurring among the natives. On the other hand, there were tropical countries, Senegambia and the Gold Coast, where phthisis was all but unknown among the natives, but was of frequent occurrence among the West Indian soldiers stationed there, and their families, although in their own country they were said to possess an almost complete immunity from it. He believed such exceptions furnished a most useful clue to the nature of the disease. On the whole, the facts, so far as they were known, which bore upon the relation between climate and phthisis, did not justify any more distinct conclusion than this, viz., that, as a matter of fact, phthisis might and did exist in any climate, and that the influence of climate, whatever it might be, so far as it depended upon latitude was but slight, and constantly modified or overridden by other more potent conditions.

About the influence of elevation above the sea-level in diminishing the phthisis death-rate, no reasonable doubt existed; with certain exceptions, the higher we ascended the greater was the immunity from phthisis, until at last it became almost if not quite complete. But the conditions on which this result depended were by no means equally clear. His own belief was that freedom of the air from impurities was the real explanation; at certain heights, the micro-organism which excited phthisis being no longer met with. A residence at a high altitude not only prevented phthisis, but also cured many persons suffering from it.

Passing on to consider the effect of dampness of soil on the distribution of phthisis, the lecturer quoted Dr. Buchanan's report, "On the Distribution of Phthisis as affected by Dampness of Soil," published in 1867. In this it was stated as true generally, and not only of particular districts—that wetness of soil is a cause of

phthisis to the population living upon it. No other circumstance could be detected that coincided on any large scale with the greater or less prevalence of phthisis, except the one condition of soil. Some years earlier, in 1862, Dr. Henry J. Bowditch had anticipated Dr. Buchanan's conclusions, having found himself compelled by force of facts to resign the commonly received opinion that consumption was equally diffused throughout New England, and to adopt the view that there were some spots which had very little of that scourge of the human race, while in other places, and even in particular houses, it prevailed to a frightful degree; and, moreover, that these spots might be, perhaps, within a very short distance from each other. The facts indicated that dryness of the soil in their surroundings was the prominent characteristic of places comparatively free from consumption; while dampness of the soil characterised the consumption-breeding districts. The influence of dampness of the soil, however, in increasing phthisis mortality, although it rested on unusually trustworthy facts, was yet not an universal law, and the lecturer quoted exceptions to it, concluding that whatever might be the relation between dampness of the soil and phthisis, it was clearly one which might be overpowered or masked by other forces.

"Of the three conditions so far considered," the lecturer continued, "two—viz., altitude and soil-dampness—have, undoubtedly, great influence; the first in preventing, the second in developing phthisis; and, in both, the facts indicate that there is a something, in large measure independent alike of the constitution and social habits of the population subject to it, but without which phthisis cannot exist. It is certainly improbable that altitude acts by producing, sooner or later, a race of men which is proof, or all but proof, against certain morbific conditions. For, on the one hand, natives of the hills readily contract phthisis in lowlands; and, on the other hand, the lowlanders recover when removed to the hills. The anti-phthisical constitution, if it be in any way due to altitude, must be a very temporary affair, easily acquired and easily lost; and yet there is no *à priori* improbability against the formation of such an anti-phthisical constitution, or against its acquiring a permanent character. Indeed, we know that there are races which remain comparatively unharmed by phthisis in the midst of deeply infected localities, *e.g.*, the Chinese in Melbourne.

"Since, then, at a certain height above the sea, phthisis ceases to occur, and affected cases recover without affecting injuriously their friends and neighbours, whilst there is no reason to suppose that these latter possess any special protection against phthisis, other than what may be temporarily due to residence at a certain altitude, it is surely reasonable to suggest that the cause of this immunity is to be found in the supposition that some external agent, essential for the development of phthisis, is here inert or absent. In the case of soil-dampness, the probability of the existence of some such agent is even greater. It is difficult to understand in what way the drying of the soil, by the execution of sewerage-works, could have so profoundly and so rapidly altered the constitution, occupation, habits, and vitality of the people of Salisbury, for example, and of other towns, as at once to reduce, by a very large percentage, the number of cases of a developmental disease, if phthisis be recognised as developmental, or of a directly contagious disease, if it be recognised as directly contagious. Surely, here, too, as in the case of altitude, a reasonable, perhaps the best, explanation of the facts is that phthisis is produced by some external agent, but yet not spread in the ordinary course of things by direct contagion. The evidence from the effect of climate pointing in the same direction is less strong, for the affirmative facts are less certain and less striking. The exception, however, under all three heads, climate, altitude, and soil-dampness, permits even a stronger proof than can be drawn from the general laws to which they are related. It is, I believe, all but impossible to explain these exceptions on either the developmental theory or on that of direct contagion; but this will be treated of in greater detail in the final summing up of the conclusion to be drawn from the nature of the so-called causes of phthisis. At present, I would only add that these three conditions are, in themselves, entirely independent of any human agency; that, so far as man's action modifies the unwholesome influence of any one of them, it will be to minimise it by the use of suitable clothing, food, fire, and shelter, and that, therefore, their real power, as gauged by statistics, is probably under—rather than over—stated."

Lecture II.—[Abstract].

The next class of causes which had to be considered related to modes of life and industrial occupations. The difficulty of separating the influence of the day workshops from that of the homes was very great; but as the home surroundings were very similar in those obtaining the same pay in the same occupation, any great variation in the phthisis mortality might be fairly attributed to the occupation. This group he proposed to divide into two sections, viz.:—1. Those occupations and modes of life in which there was the possibility (or likelihood) that direct contagion might come into play. 2. Those in which there was no greater danger of such contagion than all of us were exposed to in the ordinary intercourse of life. In the first of these sections indoor occupations contrasted unfavourably with outdoor pursuits. In the case of trades it was impossible so ascertain the true proportion of cases of tubercular phthisis included under the head of deaths from pulmonary disease; wherever imperfect ventilation of workshops, with or without overcrowding existed, the possibility of direct contagion could not be denied. In reference to the second section, the lecturer pointed out that certain occupations gave, apart from overcrowding or want of ventilation, a high death-rate from pulmonary diseases. The chief causes seemed to be—1. The presence in the air of fine dust of any kind, of carbonic acid or other noxious gases. 2. Exposure to great vicissitudes of temperature. 3. Inhaling hot air, either very dry or very moist. 4. The workman being obliged to carry on his labour in some cramped posture, interfering with the freedom of the respiratory movements. He thought it was evident that the excess of phthisis in some trades could not be accounted for altogether by direct contagion only.

Thus far he had dealt with causes of phthisis, acting only from without; he next took into consideration the modifications of bodily constitution, rendering the person more or less liable, as the case might be, to be attacked by phthisis. The susceptibility to phthisis presented itself in various aspects; he would treat of it under the heads of Race, Inheritance, Congenital Origin, and Acquired Diathesis. Under the head of *race*, it had had shown, in reference to Peru and Bolivia, that the negroes exhibited a marked proclivity to phthisis, and next to them came the descendants of the Spaniards who took part in the conquest. Again, a race might escape phthisis in one country, and yet suffer from it in another; the liability of strangers to suffer on going to a new country was very well known, and yet sometimes the native suffered while the stranger escaped, as was the case in an epidemic of yellow fever in Mexico. Another peculiarity sometimes met with was, where in the case of

members of the same race living together, the new-comers were found to suffer excessively from a disease to which they were at least as much exposed in their own country; in such a case there must be some difference in the exciting cause in the two districts, some property in the latter place which gave it increased power over the new-comer without producing any increased risk to the native of the locality. The influence of *inheritance* was less widely distributed, but more intense than that of race; *congenital* predisposition could undoubtedly exist without any evidence of inheritance. The possibility of the *diathesis* being *acquired*, was seen in the relation observed between the development of phthisis and other diseases, *e.g.*, syphilis or the continued fevers, and also in the increased liability following upon deterioration of general health by exposure to hardships, privations, or insanitary modes of life. As to *sex*, in large towns men were more liable, in agricultural districts women were most affected.

He had now spoken of the climatic, social and personal causes of phthisis, and if it were a diathetic or developmental disease all its causes might be included in these three, but if it owned some exciting cause of the nature of a morbid poison or parasite, then all these causes would have to be regarded as predisposing causes. "Is it possible then," he went on to say, "from the examination of these three groups of causes, to draw any probable conclusion as to the nature of phthisis? I believe it to be so, and that it is a necessary step on the road to any certain knowledge of a most important subject. For such an examination will make it plain that these causes, singly or in combination, are insufficient to account for the phenomena of phthisis: that it is not, cannot be, developmental or diathetic, but must be ranked among the specific febrile deseases, and that, therefore, some micro-organism or other must be a necessary condition and not a mere accident of its presence. Unless we can find among these causes some one which is never absent, the very number and well-attested rights of the claimants, are fatal to the claims of any one of them to be regarded as the sufficient cause. Were they, each and all, always present, and in definite proportion, then indeed there would be nothing paradoxical in the uniformity of the morbid changes following their action. But that causes so diverse, so distinct as dampness of soil, exposure to a hot dry atmosphere, imperfect ventilation, an attack of pneumonia, or the being descended from a phthisical ancestor, or any other causes of the same sort should give rise singly or in combination, in all climates, under all known forms of barbarism or civilisation, to similar pathological changes, associated with a similar train of clinical symptoms, and this in spite of the manifold differences in the personal factor, this can only be accepted on the production of the most cogent proof, and in default of any simpler explanation. Indeed, the longer, the more complete the list is made under these heads, the more signal does its insufficiency become; each addition to the roll increases instead of diminishing our difficulty."

We ought to look, if we did not wish to maintain a paradox, for some constant ruling factor which could explain not only the normal but the abnormal types of the disease. The bacillus of Koch seemed to exactly fulfil these requirements. He was quite prepared to accept the doctrine "No Tubercle without Bacillus, No Bacillus without Tubercle." After referring to the old views as to the nature of tubercle and caseous matter, which he attributed in great measure to the imperfect methods of observation of necessity employed, he pointed out that there was now no difficulty in accepting the close relationship which the clinical observations of our predecessors undoubtedly established between the strumous diseases of childhood, especially those affecting the lymphatic glands, pulmonary phthisis, and acute tuberculosis. And again the anomalies in the geographical and local distribution of phthisis, and in its incidence upon different races and families and individuals could not be explained upon the developmental theory, and were in support of the micro-organism theory. "Given the bacillus," he said, "or some other micro-organism and both sets of difficulties, the geographical and the anthropological, wide apart as they appear to be, receive the self-same easy solution. The bacillus whether inside or outside the body of man, or of any other of its 'hosts' cannot thrive except certain conditions be present. The analogy of other micro-organisms (*e.g.*, that of the wool-sorters disease) and also of the higher classes of plants, proves how very slight are the changes which suffice to prevent or to favour the existence of vegetables and probably also of the lowest members of the animal kingdom; thus the distribution of many phanerogamous plants is extremely capricious. The exemption then of certain localities and of certain races from phthisis, may be, is due to the fact that the bacillus has been unable to contend with some adverse circumstance or other with which it has met, in the first case during the independent, in the second during the parasitical phase of its life."

The lecturer divided phthisis into two groups. 1. In which the onset was insidious or gradual. 2. In which it began abruptly. The latter could be again divided into (*a*) cases in which the symptoms from the very first were those of phthisis, *e.g.*, the so-called hæmorrhagic phthisis; (*b*) cases in which the disease followed sharply upon or even was continuous with some acute attack, it might be a pleurisy or pneumonia or some general fever or syphilis. The insidious form was the most typical. The period of incubation was absolutely unknown; he knew of no recorded case of the disease coming on after a single exposure, or even one of a few days only, to some source of infection; but judging from the results of inoculation experiments the period could not be a long one. Usually there was failure of strength and vigour long before any pulmonary lesion could be recognised, some form of indigestion being commonly amongst the earliest symptoms; albuminuria, too, both transient and abiding, he had known as amongst the prodromata of the lung symptoms. The night-sweats, or rather sleep-sweats, of phthisis were often most profuse in the early stages, when new growth rather than destruction of tissue was taking place; they belonged to the acute general stage of the disease, and were not merely part of the hectic due to suppuration. The sudden explosion of acute tuberculosis during the course of ordinary phthisis was found, in one instance, to be due to the bursting of a softened tubercular mass into a vein, and the consequent entry into the blood stream of a quantity of bacilli. Cases in which hæmorrhage, not due to already existing disease, led to phthisis were to be regarded as very rare.

"Thus," said Dr. Andrew, "the clinical charaeters of phthisis no less than the facts connected with its geographical distribution, and with its predisposing causes, harmonise so well with the hypothesis that some micro-organism or other is its exciting cause, and not a mere accidental attendant that it seems to me impossible to come to any other conclusion, even apart from the results of the inoculation experiments. I have dwelt on this, at what may seem to be unnecessary length, because no one who denies it, or who fails to recognise the complete change in the manner in which the problem must now be stated, has any right to claim a hearing on the question of contagion. He would be no better fitted for such a task than the blind to discourse on painting, or the deaf on music. But having stated my unreserved adhesion to

the belief that phthisis is a member of the group of specific febrile diseases, and that, therefore, like its congeners it is dependent upon some morbific germ introduced from without, am I then obliged to admit that it is propagated by direct contagion from the sick to the healthy, or even, that its transmission through indirect channels as in the case of typhoid fever or of cholera, is a matter of frequent occurrence? Most certainly not. The grounds of my disbelief in what is becoming once again the popular theory I shall lay before you in the concluding lecture. Some of them have been already incidentally mentioned, but their full force only comes out when it is seen how some of the very facts which establish conclusively the specific nature of phthisis, place it also unmistakably amongst the non-contagious members of the group to which it belongs."

Lecture III.—[Abstract.]

Comparing phthisis with malarial fever, Dr. Andrew noted many points of resemblance: both had been known from the earliest times, in both the evidence of their having been introduced into any new country by man was very inconclusive, both had prevailed in varying degrees in the same locality, an advancing in the one, and a retrograding civilisation in the other, had favoured the spread of the disease, both were widely dispersed, but phthisis extended farther north than malaria did, both varied in their characters in different parts of the world, *e.g.*, both were more acute and severe in the Tropics, both prevailed under certain unknown climatic and social conditions, both decreased in severity, and finally disappeared with increasing elevation above the sea-level; both were closely connected with wetness of soil, and both were greatly diminished, if not extirpated, by efficient drainage; both were sometimes confined locally within narrow limits, the action of the micro-organism in each was greatly modified by the personal constitution of those exposed to it; in both a bacillus had been demonstrated, cultivated, and proved by inoculation experiments to be the exciting cause of the disease; they differed in their habitat, phthisis being most prevalent in cities which afforded all but complete protection against malaria. Clinically they agreed in that recrudescence might take place after long periods of apparent health, and that in both the pyrexia was periodic.

Specific febrile diseases were very apt to be regarded as contagious without further enquiry, but it was clear that the micro-organism which was the exciting cause of the disease, stood in different cases, in very different relations to the living creature which it attacked. Sometimes, as in typhus, or small-pox, the bacillus was truly parasitical, *i.e.*, incapable of multiplying unless it met with a certain "host;" in such a case the disease was directly contagious. Sometimes the bacillus might be less completely a parasite, it might require for vigorous growth, to pass from time to time through the body of some "host." In both these cases the resulting disease was almost certain to be highly epidemic in character, sometimes causing a vast number of deaths, sometimes almost unknown, or presenting only the mildest type of disease. Scarlatina and typhoid fever were referred to in illustration of these varieties. Sometimes the micro-organism might be entirely independent, if not of any "host" whatever, at any rate of man, its sojourn in his body being unfavourable to its full development. Of course, transfusion of blood or inoculation might produce the disease, but this would in no way prove that the disease was communicable from the sick to the healty. Malarial fever probably owned such a relation as this, to some micro-organism, and, prior to the discovery of the bacillus, the known facts relating to the ætiology of phthisis led to the belief that it was more closely associated with malaria than with other forms of communicable disease. Ought the discovery of the tubercle bacillus to make us reject the former conclusion? The lecturer thought not.

The discovery of the bacillus had placed phthisis amongst the group of specific febrile diseases, a position it was quite entitled to apart from this discovery. Some of these diseases were directly communicable from the sick to the healthy; some indirectly; others were not communicable at all, except by artificial means. There was no *à priori* reason why phthisis should belong to one of these groups rather than another, or why it should not occupy some intermediate position. What then were the proofs that it was contagious? In the first place, there was an old popular superstition on the subject; and there was also the undoubted success obtained by inoculating animals, and in one celebrated instance, the human subject, with tuberculous material. Here the lecturer referred to the well-known experiments of Burdon Sanderson on the artificial production of tuberculosis with various indifferent substances, and said that, although such results ought not to be lightly put on one side, yet it was almost certain that the same experiments repeated now with fuller antiseptic precautions would not give rise to the same specific lesions; it was noteworthy that, although the disease was so readily produced in guinea-pigs by inoculation, yet they were not specially liable to it in their natural state.

Whilst then the results of direct inoculation showed that phthisis might be communicated artificially, they in no way proved that it was likely to spread through a community like scarlatina or typhoid. There was much to suggest that the bacillus of tubercle, like that of malaria, might be widely diffused, and that the risk of infection was not, perhaps, greatly increased by personal contact with the sick. The bacillus malariæ became less dangerous by reason of its stay in the human body, and looking to the capricious distribution of phthisis, and to the absence of any sufficient proof that it has been imported into any country, the same might be said of tubercle. At any rate better proof was required of its being propagated in communities by contagion. The results of feeding experiments had been called in to aid the solution of this question; the contamination of air, water, &c., by tubercle-bacilli must be as common an occurrence as in the case of scarlatina or typhoid, and might be very difficult to prevent, and yet in an epidemic of either of these, the distribution of the cases and their relation to each other almost always led to the primary source of infection at first unknown, whilst in phthisis with full knowledge of the foci from which the disease might spread in this way, we were unable to discover anything of the kind, except in some very rare instances, and on the smallest scale. Allusion was here made to a remarkable case recorded by Mr. Fleming, in which an Alsatian farmer lost a cow six years in succession from phthisis, each animal having occupied the same stall, none of the animals occupying the adjoining stalls at any time having suffered; after the stall had been thoroughly cleansed, and all the woodwork destroyed, the disease disappeared. This case Dr. Andrew regarded as pointing to local rather than personal infection, and it afforded some evidence that habits of cleanliness might play an important part in protecting a person exposed to the disease from taking it.

The largest and most important collection of observations on the communicability of phthisis among men, was that furnished by the Collective Investigation Committee of the British Medical Association. He thought, however, that there was one fault in the mode in which the investigation had been conducted which must have had considerable influence on the result.

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This was that the Committee had asked only for affirmative cases, and consequently had not received so many answers to disprove the contagiousness of phthisis as they otherwise would have done. Out of a total of 1,078 there were 261 affirmative answers, and 165 negative. The first group in the affirmative answers was that of cases between husband and wife, from which it appears that the wife was much more likely to take the disease from the husband than the husband from the wife. In explanation of this it was pointed out that the woman in her capacity of nurse would be thrown into more close contact with the sick, and be exposed to more and greater chances of infection than her husband would be, if she were the sufferer, for he would then have to work harder to provide the necessary comforts and so would be less instead of more time in her company. Even on the diathetic theory this would suffice to explain the greater mortality among the wives. Grief, anxiety, and the various hardships and privations consequent on the illness, confinement within the house in a close ill-ventilated room would on the diathetic theory (which was perfectly true when applied as a predisposing cause only) account naturally for the excessive mortality on the female side. Indeed, the personal contagion theory failed to explain the facts under this head, for there was a most important difference between phthisis and all other diseases of this class in the matter of duration. The disease was not one of a few weeks but of months or years, and during a considerable time there might be but little change in the domestic life, so that the danger of personal contagion was fairly equal between the two for a long period, no matter which first showed symptoms of the disease. There was, however, another factor which might tell heavily against the wife, and that was syphilis; which undoubtedly when present was in the majority of cases transmitted from husband to wife. The relation of phthisis to syphilis was neither a simple nor a uniform one, he believed that the number of cases of syphilitic phthisis was very large. Sometimes an affection of the lungs closely simulating phthisis, which might be situated at the apices, and was attended by repeated and profuse hæmoptysis was really nothing more than visceral syphilis, and, though powerfully predisposing to it, was not necessarily followed by tubercular phthisis; he had known such cases to commence within a few weeks of the appearance of the primary sore, and end in complete recovery when treated as syphilis. If the nature of the illness was not recognised considerable destruction of lung tissue might take place, and, if the patient met with the bacillus, tubercular phthisis might follow, but even then syphilis would continue to be an important factor in the morbid process. After quoting an illustrative case, he said that the by no means uncommon existence of this form of disease seemed to give a more reasonable explanation of the undoubted fact that sometimes two or three wives fell victims in rapid succession to phthisis, than to believe that a contagion ordinarily so mild, as even its advocates represented it to be, should yet exhibit such portentous fitful activity. The same explanation might, perhaps, hold good also in other cases of apparent direct infection, as well as in the above. The excessive female mortality seemed to the lecturer almost inexplicable on the direct personal contagion theory, but simple and natural if attributed partly to syphilis, partly to the increased predisposition owing to the special duties of the wife and her life in-doors, and also to the fact that the constitution of the wife tended to become assimilated to that of the husband. It was to be noted that out of the 261 affirmative observations, 192 referred to married couples.

"In reviewing the 'remaining groups," said Dr. Andrew, "notice must be taken of the very small number of instances, especially of those observed between unrelated persons, which amount at most to twenty-one, and this, be it remarked, in the case of a supposed infectious disease, the contagion of which, if it exist at all, is active in the majority of its victims, for months, or even years. If cases of typhus, or of scarlet fever, retained their contagious property for an equal period, no human being could escape them. And yet upwards of one thousand observers, speaking from a collective experience of many thousand patients, can only record about a score of cases in which the disease was transmitted between persons unrelated to each other. Contagions which act directly from person to person, and which are probably parasitical in the true sense of the word, are, for the most part, extremely powerful. They do not recognise slight differences of race, or family, or climate, or subsoil water, or even of altitude above the sea-level. The only protection against them for the unseasoned, is to be found in the isolation of the sick, the speediest possible destruction of the contagion itself, and the most perfect ventilation of the sick-room. But phthisis behaves after quite a different fashion. Among persons living together in the same house, or in the same room, it picks out special strains of blood, or attacks in one family the males, in another, the females only."

In regard to these points, Dr. Andrew quoted a case from his own experience, and one mentioned by the Committee in their report; the latter was the case of a dressmaker, who died of phthisis, and whose three apprentices also all died of phthisis, contracted as was supposed, by their having taken it in turn to remain in the house with their mistress, and sleep with her, for in none of them was there any tendency to inherited phthisis. There were, however, it was pointed out, difficulties in the way of accepting the contagion theory in explanation of these cases, the contagion must have been very virulent, and yet none of the relatives of these apprentices took the disease, and, again, why should the same contagion be at one time so active as this, and at another so inert, that it was impossible to trace its operation. The number of these extraordinary facts, was not greater than might be fairly expected, as mere coincidences in the case of so common a disease as phthisis, he thought they could be more naturally explained as instances of special local infection. Dr. Bowditch had also published a case of the apparent contagiousness of phthisis, but which was in reality, much better explained on the local infection hypothesis. Only those cases could be admitted as evidence of contagion, in which the disease appeared within a moderate interval after the last exposure to the source of infection. Cases in which it must have lasted for over a year, ought not to be used as a double-barrelled argument, to prove at once the contagiousness of phthisis, and the great length of its incubation. Apparent instances of the contagiousness of ague were not known, but it was probable that they were only apparently so, and due to a recrudescence, or some such cause.

As affording a strong presumption against the direct contagion theory, he quoted the experience of the Royal Hospital for Diseases of the Chest since 1855, which, on the whole, negatived the idea of any direct contagion under the ordinary conditions of hospital residence and service. In conclusion, he summed up his arguments with respect to the ætiology of phthisis, with special reference to its contagiousness as follows:—

1. The historico-geographical argument is insufficient to prove that the present distribution of phthisis has been brought by the carriage along lines of human intercourse of a special morbific germ. Indeed, many of the facts under this head are distinctly antagonistic to any such theory.

2. Before the discovery of the bacillus, one and all of the reputed causes of phthisis were inadequate to account for its distribution, or for the anatomical and clinical characters of the disease.

3. That these causes, even those among them, which appeared to act as exciting causes, were all predisposing causes only.

4. That from the nature of these predisposing causes, their relation to each other, and the conditions under which their influence seemed to make itself felt, it was a probable inference that phthisis belonged to the group of specific febrile diseases, and that this view was held by some writers in the face of many difficulties and perplexities.

5. That the facts on which this inference was based were insufficient to prove that phthisis was personally contagious, and were, indeed, opposed to any such notion.

6. That the discovery of the bacillus proved that phthisis was a specific febrile disease, and that the question of contagion cannot now be usefully discussed without acknowledging this fact.

7. That as some specific febrile diseases are contagious, and others are not so, this property existing in very different degrees and modes, in different members of the group, the question as to the contagiousness of phthisis can only be satisfactorily answered by direct evidence of its contagiousness, and by determining its affinities with other members of the group.

8. That although phthisis may be undoubtedly produced in many ways experimentally in animals and also probably in man, there is not sufficient evidence to prove that its prevalence is materially effected by direct contagion.

9. That in many most important respects it very closely resembles ague.

10. That it is at least highly probable that the exciting cause of phthisis, like that of ague, be it the bacillus or some other micro-organism, is in no way dependent upon man for its existence, and is widely diffused irrespective of human agency.

"From these facts," said Dr. Andrew, "I may be allowed to make one short practical deduction, viz., that the prevention of phthisis, like that of ague, is to be attained by sanitary works especially of improved ventilation and drainage, and not by isolation. And that for its cure, as we should not send a case of ague to the Pontine marshes, so, too, it would be wise not to send a case of tubercular disease to any place where the death-rate from phthisis is high among the native population."

CROONIAN LECTURES ON EVOLUTION AND DISSOLUTION OF THE NERVOUS SYSTEM.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS,

By J. HUGHLINGS JACKSON, M.D., F.R.C.P., F.R.S.

LECTURE III.—[Abstract.]

AFTER remarking that the doctrine of evolution did not involve materialism, the lecturer began by considering the nervous system as a sensori-motor machine. His particular aim was to show that the highest centres, the physical bases of consciousness, had a sensori-motor constitution, and also that they represented impressions and movements of all parts of the organism. As he did not suppose that any one denied that the highest centres represented, however indirectly, peripheral impression, he only adduced evidence towards showing that the highest centres were representative (or rather re-representative) of movements of all parts of the body. The first evidence was supplied by epilepsy; the paroxysms in the disease were produced, he believed, by a sudden and excessive discharge beginning in some part of the highest sensory or highest motor-centres, and not by discharges beginning in parts of Ferrier's motor region (middle motor centre), nor in parts of his sensory region (middle sensory centres). A convulsion is nothing other than a sudden excessive and simultaneous development of, a contention of, very many different movements at once.

We see in a very severe epileptic fit that all the skeletal muscles are put in vigorous activity—development of movements of all parts of the body. If we take a slighter case, one of *le petit mal*, we see that the effects of the central discharge are very widely distributed over the body; there are, in such cases, effects so various, as spasm of ocular and hand muscles, pallor of the face, flow of saliva, perspiration, changes in the circulation (sometimes stopping of the heart's action, as Moxon has insisted), and arrest of respiration; there is often in, or just after, these slight fits, a discharge of fæces and urine. The existence, in some cases of *le petit mal*, of the voluminous mental states ("dreamy states"), spoken of in the last lecture (first depth of dissolution effected by an epileptic discharge), guarantees, so to speak, that the cruder effects just spoken of are owing to abnormal activity of the highest centres; the elaborate mental states mentioned, which no one will hesitate to ascribe to activity of "the organ of mind" (highest centres), never, so far as he has observed, occur in or after epileptiform seizures (discharges of middle motor centres). Then, if we take only the "warnings" of epilepsy, or rather of many different epilepsies, which "warnings" occur from, or attend, the beginning of the central discharges, we find them exceedingly various; there is giddiness, implying spasm of the ocular muscles, or of some of those of the head; there are "crude sensations" of smell, sight, hearing, and taste. Besides these we find palpitation, a peculiar sensation referred to the epigastrium, and widely referred sensations of tingling, shuddering, and shivering. Is there not here further evidence in support of the conclusion that the highest centres represent all parts of the body? Another kind of evidence from these cases is that when the severe fit is over the patient is universally paralysed. (See second lecture.)

Another, quite different, kind of evidence points to the same conclusion. Will, memory, reason and emotion are only artificially distinguished aspects of one thing, a state of consciousness. Taking them separately, and analysing their physical bases, the lectures tried to show that each implied a representation of movements of some parts of the body; that, taken together, they implied a representation of numerous different parts, if not of all parts, in the anatomical substrata of consciousness. Thus, to say that an epileptic fit is owing to a discharge beginning in some part of the highest centres (popularly "organ of mind" or "most intellectual parts of the nervous system") is equivalent to saying that it is owing to a discharge beginning in parts which form the anatomical substrata of will, memory, reason, and emotion. Epilepsy and insanity were both diseases, very different, it is true, of the "organ of mind." In an epileptic paroxysm, there is a sudden and excessive discharge of very many sensori-motor nervous arrangements of the highest centres at once; *during* such discharges consciousness ceases, and *from* them convulsion results. The mentation of the insane man occurs during slightly raised activity of sensori-motor nervous arrangements, in sequence. The following quotation shows that this was an old opinion.

"Surely the conclusion is irresistible that 'mental' symptoms from disease of the hemisphere are [on the physical side] fundamentally like hemiplegia, chorea,

and convulsions, however specially different. They must all be due to lack of, or to disorderly development of, sensori-motor processes." ("St. And. Med. Grad. Trans.," 1870.)

He then considered degrees of organisation, and having abandoned the term "most voluntary," and using in its stead the term "least automatic," pointed out that degrees from most to least organised were only another aspect of degree from most towards least automatic. Degrees of automaticity were degrees of easiness of working, implying degrees of perfection of structure. There were, he supposed, degrees of organisation from nervous arrangements whose structure was almost fixed and unalterable to nervous arrangements now making—to "nerve stuff," now being first travelled by nerve currents. He illustrated degrees of dissolution by a case of increased mental activity after fatigue, believing that the fatigue caused exhaustion of some highest, least organised, nervous arrangements, and that the increased mentation occurred during activity of the more organised, uncontrolled, nervous arrangements. (Anstie's principle.) A still more extreme case was instanced. Delirium sets in during starvation; surely it cannot be contended that from total withdrawal of food certain nervous arrangements attain greater activity? If they do, we have still to account for the negative part of the starved man's delirious condition. Does innutrition "cause" two diametrically opposite and yet co-existing states of the nervous system? Anstie's principle accounts for both.

He then spoke of those reflex actions in which the highest centres are engaged. In strong and complete reflex actions, as during what is called perception, say visual perception, all orders of centres are engaged. First, an impression on the retinal periphery, then discharge of the middle sensory, and next of the highest sensory centres—so far for the physical condition for the colour of the object. The shape of an object is, on the physical side, an affair of movements, in this case of ocular movements. After activity of the highest sensory centres, the highest motor centres were in activity, and then, by "downward currents," the middle and lowest motor centres were engaged, and the muscular periphery was reached. A vivid image, colour and shape arises during strong activities of the central links of this reflex chain (highest sensory and highest motor centres). During ideation, thinking of the object in its absence, the reflex action was incomplete and weak; only the central part of the sensori-motor process was done over again, and done weakly; thus a faint image arises.

Let us, for illustration, arbitrarily imagine there to be a centre for visual ideation and nothing else, or rather a centre for the anatomical bases of visual images only. We "store up" images of innumerable different objects, each of which has some colour and some shape; this means, on the physical side, that the centre we are supposing contains innumerable nervous arrangements, each of which represents a different retinal impression, and a different ocular movement; anatomically, these are sensori-motor nervous arrangements, physiologically, they are reflex actions During slight activities of this centre, unprovoked from the periphery, we have faint visual images; during strong activities provoked by peripheral activities, we have vivid visual images. So far for two degrees of healthy activity. Now, suppose that certain of the cells of the nervous arrangements of the visual centre, by some pathological process, become highly unstable, to a degree such as occurs in epilepsy; the consequence will be that many nervous arrangements will occasionally discharge excessively and *simultaneously*. During such a discharge there would not arise images of many objects differently coloured and shaped; but, on the contrary, there would be crude masses of vivid colour before the eyes, and there would also be a strong development of many ocular movements at once—that is to say, convulsion of the muscles of the eyeballs.

So far, as much as possible, a man has been considered as a mere machine. But consciousness attends activities of at least the highest, least automatic, parts of this machine. The doctrine, the lecturer accepts, is, (1) that states of consciousness (or, synonymously, states of mind) are utterly different from nervous states; (2) that the two things occur together—that for every mental state there is a correlative nervous state; (3) that, although the two things occur in parallelism, there is no interference of one with the other. Thus, in the case of visual perception, there is an unbroken physical circuit from sensory periphery through highest centres back to muscular periphery. The visual image, a purely mental state, occurs in parallelism with—*arises during* (not *from*)—the activities of the two highest links of this purely physical chain.

The lecturer then spoke of range of concomitance. Less consciousness attends activities of nervous arrangements, the more organised and automatic they are or have become, which means that the highest, least organised, least automatic, most imperfectly reflex centres, are the physical bases of consciousness, or most vivid consciousness; according to most authorities, the most automatic nervous arrangements have no attendant conscious state, during their activities.

The lecturer then spoke of those disorders of co-ordination which were observed when movements were attempted — started by volition, that is, speaking realistically, by discharges beginning in parts of the highest centres. All these disorders of co-ordination were, he thought, essentially cases of paralysis, that is, in the sense of loss of some *movements*—there was also an over-development of other movements of the same muscles, consequent on greater energising of *healthy* nervous arrangements: the two opposite states, (1) paralysis, that is, loss of some movements, and (2) over-development of some others, constituted the disorder of co-ordination.

The lecturer then stated his opinions as to localisation, limiting consideration to movements. For illustration, he imagined a centre for the arm and the leg. The "Universaliser" would say that every part of the centre represented the arm and the leg in the same way; the "Localiser" would say that one part of it represented the arm only, and another part the leg only—would, indeed, make two centres. The lecturer did not accept either of those views; he re-stated the opinion which he had put forward as to localisation.

"It may be said that one convolution will represent only the movements of the arm; another, only those of speech; another, only those of the leg, and so on. The facts above stated, show that this is not the plan of structure of the nervous system. Thus, to take an illustration, the external parts, x, y, and z, are each represented by units of the corpus striatum. But the plan of representation is not that some units x largely only, as x_3, others y largely only, as y_3, but that each unit contains x, y, and z—some, let us say, as x_3, y_2, z; others as x_2, y_3, z, &c. When we come to the still higher evolution of the cerebrum,[1] we can easily understand that, if the same plan be carried out, a square inch of convolution may be wanting, without palsy of the face, arm, and leg, as x, y, and z, are represented in other convolutions; and we can also easily understand that discharge of a square inch of convolution must put in excessive movement the whole region; for it contains processes representing x, y, and z, with grey matter in exact proportion to the degree

[1] At that time I arranged centres morphologically.

of complexity." ("St. Andrew's Medical Grad. Trans., 1870.")

Admitting difficulties in the way of acceptance of his hypothesis of localisation, the lecturer thought the current hypothesis did not account for all the facts. Any adequate hypothesis had to account for the following: (1) That from a destructive lesion of part of a motor centre, the paralysis was especially of the more voluntary. (2) That on a discharging lesion, the order of convulsion was the same. (3) That the progress in each (1 and 2) was in Compound Order. (4) That a part might be permanently imperfectly paralysed, and yet the whole of it might be occasionally convulsed. (5) That recovery, or some recovery, follows on permanent destructive lesions producing paralysis. (6) That a small destructive lesion of a motor centre may entail little or no paralysis, whilst a sudden and excessive discharge beginning in such part, produces (indirectly) very great convulsion. (7) That from discharges beginning in different parts of the mid-cortex, we have convulsions affecting the same regions, but their parts in different order ("isomeric seizures"). (8) That a patient, who has no paralysis before a convulsion, may have much (temporary) paralysis after it.

CLINICAL LECTURE

ON A CASE OF STONE IN THE BLADDER OF A FEMALE, AND WHAT IT LED TO.

Delivered at St. George's Hospital

By T. PICKERING PICK, F.R.C.S.,

Surgeon to the Hospital.

Gentlemen, the case to which I am about to draw your attention is that of a young woman, who was this day discharged from the Drummond Ward, cured of the infirmity for which she sought admission. The case is one of very considerable interest, and illustrates very well the difficulties one may have to contend with in what, under ordinary circumstances, may be regarded as a very simple case.

Julia W., aged 25, was admitted into St. George's Hospital under my care in May, 1883.

She gave the following account of herself:—that seven years ago she began to suffer from great pain in micturition and retention of urine. She was admitted into one of the London hospitals, where she was told that she had a stone in her bladder, and an operation was performed for its removal. She was told that the stone was of large size, but she never saw it. Since this time she has never been able to retain her water, which has constantly dribbled away, causing her the greatest misery and discomfort, and constantly excoriating the inner sides of her thighs. On two occasions an operation was performed in this hospital in order to remedy the defect, but without success, and eventually she was discharged.

In June, 1881 (five years after the first operation), she was admitted into another metropolitan hospital. I am indebted to the Surgical Registrar for the following notes of her case whilst in this hospital.

"When admitted, there was a large vesico-vaginal fistula: the urine was alkaline and bloody; there was no power of retention. On June 23rd, the edges of the fistula were pared and united with four wire sutures and beads; a gum elastic catheter was tied in the bladder, and the prone position was enjoined after the operation. On July 29th, the wires were removed; partial closure had been effected; there was considerable power of retention for a time, followed by ulceration about the fistula, and return of the incontinence. On August 8th, there was a sudden and profuse attack of hæmorrhage from the wound. The vagina was plugged. The hæmorrhage recurred from time to time without warning, and was so severe as to cause faintness. Pain in defæcation now came on, and on examination there was found to be some obstruction in the rectum, about three inches from the anus. On September 15th, an opening was discovered between the rectum and vagina; its edges were hard and raised. The fæces and urine passed from the one tube to the other. During the next four months, repeated attacks of hæmorrhage occurred from both openings, the edges of which were in a state of active ulceration.

The patient was discharged on April 29th, 1882, in *statu quo*, as not suitable for further operation, owing to general weakness, and the great tendency to ulceration and hæmorrhage following operation."

She came under my care, as stated above, in May last. I then found that she was suffering from vesico-vaginal and also recto-vaginal fistula. The vesico-vaginal fistula was of very large size, freely admitting three fingers, in fact the whole of the posterior wall of the bladder appeared to be gone. The lower wall of the urethra had also been destroyed, so that no remains of the canal persisted. The edges of the fistula were healed. The recto-vaginal fistula was of small size, large enough to admit a goose quill, situated about two inches from the anus. The tissues around were dense and cicatricial.

In spite of the unpromising nature of the case, I made an attempt to close a part of the vesico-vaginal fistula, hoping, by a series of operations, to gradually succeed in closing the whole of it. In spite of free lateral incisions, however, the amount of tension on my sutures was so great, owing to the scarcity of tissue, that they speedily gave way, and not the slightest benefit was obtained. Believing that any attempt to close the fistula would prove futile, I now had her supplied with a urinal, and sent her out of the hospital.

She was readmitted on September 19th, 1883. She complained that though the urinal was efficient in keeping her dry whilst standing and walking about, she was unable to sit down with it on, and that, when in the recumbent position, the urine leaked by the side of the apparatus and caused her bed to be constantly wet. She was in a most miserable and desponding condition, emaciated, with a wan and anxious expression, and willing to submit to any operation which would rid her of her constant trouble and annoyance.

Accordingly, on October the 18th, the patient having been placed under the influence of ether, and in the lithotomy position, I dissected up a circular belt of mucous membrane from the inner surface of the labia minora, just within the orifice of the vagina. By this means I laid bare a surface, an inch in depth, completely round the vagina. I then introduced a curved pewter tube through the recto-vaginal fistula, from the vagina, so that the end protruded out of the anal orifice. The raw surfaces were now brought together with three deep quilled sutures, and five superficial silver wire sutures, so that the orifice of the vagina was completely closed.

After the operation she suffered considerable pain, but otherwise did well. The quilled sutures were cut on the fourth day, and removed on the sixth. On October 30th (the twelfth day after the operation), she was placed under the influence of ether, and the silver sutures were removed. The tube was also withdrawn from the rectum. The whole of the wound was firmly united.

Upon visiting the patient next day, she exclaimed, with tears in her eyes, "Oh! I am so much obliged to you, Sir! I slept all last night without wetting my

bed, an event which has not happened to me for the last seven years."

I determined to keep the patient under observation for some time, and directed that the vagina and bladder should be syringed out daily by a catheter introduced through the recto-vaginal opening with a weak solution of nitric acid (℥ ij ad. ℥ j). On November 3rd, she got up and walked about the ward, and was able to retain her water. In fact, she states that she can retain it "as long as she likes." I made an examination on November 13th, and found that there was no deposit of phosphates on the vaginal mucous surface. I therefore gave orders that she should be instructed to pass the catheter for herself, and this having been done, she was discharged on December 1st. My clinical clerk makes the following note in his case-book on the day of her discharge :—"Her countenance shows a marked change from her previous condition. She now looks happy and bright, and is gaining flesh rapidly."

And such, indeed, was the fact. I never remember to have seen such a notable change in the appearance of any patient, from the anxious, careworn, and piteous expression which she presented on admission, to the bright and happy smile which illumined her countenance when she wished us "good-bye."

I ought, perhaps, to have mentioned, that for the last twelve months she has not menstruated ; but no doubt with her improved condition this flux will return, and there seems no reason to doubt that it will find its way through the fistulous opening as readily as the urine, and that she will menstruate through the rectum.

Such, then, gentlemen, is the history of our case, and there are several points of interest in connection with it to which I shall briefly draw your attention. And the first point to which I would allude, is the infrequency with which we meet with stone in the bladder of the female. Of course, I do not allude to those cases of phosphatic concretion formed around some foreign body introduced from without, which, unhappily, are by no means uncommon in the bladders of young females ; but to calculi, either lithic acid or oxalic acid, originally formed in the kidney and passed down the ureter into the bladder, or to true phosphatic calculi, which appear to originate primarily in the bladder. Is this rarity due to the less frequent formation of stone in the female? or is it due to the fact that, when present, on account of the absence of any prostate gland, the shortness of the urethra and its dilatability, they are unconsciously passed and, therefore, do not come under our notice? I have no doubt that stone in the female is much more common than is generally supposed, and that the calculus is passed *per urethram* without even the patient herself being aware of the fact. That even large stones may be passed without any effort or discomfort to the woman herself is evident from such a fact as this—that a stone, as large as the one I show you, could be passed by a woman whilst she was engaged in dressing her mistress's hair, yet such was the fact.[1]

It is probable, however, that the lithic acid calculus is not so common in the female as in the male, on account of the higher living and the greater amount of stimulant to which the latter is very often accustomed. We know that gout, with which the lithic acid diathesis is intimately associated, is more common in the male than in the female.

Another point in connection with this case to which I wish to draw your attention, is the best method of dealing with stone in the bladder of the female. We may remove them either by lithectasy, lithotomy, or lithotrity. By *lithectasy*, or dilatation of the urethra, which may be either rapid or gradual. I hold a very strong opinion that the method by rapid dilatation is the only one which should be employed for the removal of *small* stones. When we consider the ease with which we can dilate the female urethra, so as to introduce the finger into the bladder for purposes of exploration, and the perfect harmlessness of the proceeding, we shall feel that we have in this way a safe method of removing small stones—say, of not more than an inch in diameter. When the stone is larger than this, there is a probability of lacerating the mucous membrane and unduly stretching the muscular coat of the urethra, and thus setting up permanent incontinence of urine.

The plan of operating by gradual dilatation, by means of sponge tents, ought not, I think, to be practised, as likely to lead to incontinence. Mr. Bryant, in a paper read before the Medico-Chirurgical Society in 1864, gives a tabulated statement of 28 cases of stone in the female bladder in which the stone was removed by dilatation. In four of these cases only was the operation followed by incontinence ; and, curiously enough, these four cases had all been treated by *gradual* dilatation. Such a fact as this is sufficient, to my mind, to condemn this mode of operating.

When the stone is of greater size than one inch in diameter, I then believe that vaginal lithotomy is the best operation. Some surgeons have proposed to remove the stone by slitting up the urethra ; but it has been found that in about one-half of the cases in which this has been done, permanent incontinence has been the result, and I, therefore, only mention the operation to condemn it. We have Sir Henry Thompson's great authority for preferring vaginal lithotomy to lithotrity when the stone is *large*, and when it is small, as we have seen, we have a better method than either in urethral dilatation. Sir Henry Thompson says, with regard to lithotrity, "The bladder soon becomes empty, and the manipulation and removal of large, sharp, and angular fragments in that condition I consider a very hazardous proceeding, and one which probably involves more damage to the urethra, to say nothing of the bladder, than the removal of a good-sized stone entire." With this opinion I cordially agree. Of late years some surgeons have recommended that, after crushing, the stone should be removed by Clover's or Bigelow's evacuating bottle ; but this is not always applicable to the female bladder. The essence of Bigelow's method is to keep the bladder full during evacuation of the fragments ; and so particular is Bigelow on this point that he recommends that an elastic ring should be placed round the penis to prevent any water escaping by the side of the catheter. This, of course, cannot be done in the female, and it is found that the water escapes almost as soon as it is injected. In the patient from whom I removed this large phosphatic concretion, after crushing, I attempted to evacuate with Bigelow's bottle, but had to desist on this account.

It is true that vaginal lithotomy may be followed by vesico-vaginal fistula, as in the case just narrated, and that is the great objection to the operation. On referring to the literature of the subject, I cannot find that this is of common occurrence, nor do I remember any instance in which the accident has happened in the practice of this hospital. There is one word of caution, in performing this operation, which I may give you, and that is, that the incision through the vesico-vaginal septum should be free enough to allow of the stone being easily extracted. If any force has to be applied in pulling the calculus through the opening, the edges of the incision will be torn and bruised, and consequently some sloughing may take place, with want of union of the wound, and as a result a vesico-vaginal fistula.

A third point of interest in our patient's case arises

[1] The stone exhibited was 1⅛ inch in its longest diameter, and ⅞ of an inch in its shortest. Its longest circumference was 3¾ inches, and its shortest 2½ inches.

out of these last remarks and that is, the reason of the formation of the fistula. Why did the wound not heal as it ordinarily does? I think we have the answer to this in the behaviour of the wound after the several plastic operations which were performed. It will be remembered that, after one of the operations, it is recorded that the wound took on an ulcerative action, accompanied by severe hæmorrhage, and there can be little doubt that the failure of union in the first instance was due to the same cause. The patient's constitution was naturally unsound, though, as far as we could learn, there was no syphilitic or specific taint; and owing to this general weakness no healthy union took place. Each succeeding operation was attended by a similar ulceration, and so the gap widened until it assumed the size which it was when she came under my care.

The cause of the formation of the recto-vaginal fistula is not so clear. I am inclined to think that owing to this same general weakness, an abscess formed in the recto-vaginal septum, and this was the cause of the pain in defæcation complained of, and the obstruction in the rectum which was noted at one period of the case. This abscess subsequently burst into the two tubes, and thus the fistula was established. This hypothesis seems the more probable from the fact that, when the opening was first discovered, its edges were noted to be hard and raised. The formation of this fistula, which, no doubt, was regarded as a serious complication, really appears to be the turning point in the case, as it opened up the way for us to divert the urine in the manner described.

One other point in connection with this case requires consideration, and that is, whether I did right in performing this operation. It seemed to me to be impossible to close the large opening which existed, and the only other proceeding which suggested itself to my mind was inapplicable in this case, and that was to sew the lower margin of the fistula to the posterior wall of the vagina. She would then have menstruated through her bladder and, of course, would have been incapable of bearing children, but, no doubt, would have been able to fulfil the duties of married life. This plan has been suggested as a remedy in these cases of extensive destruction of the posterior wall of the bladder, but was not applicable in our patient's case, because there was no urethra, and, therefore, there would have been no power of retaining the urine. Besides it would not have dealt with the recto-vaginal fistula. Of course, the proceeding condemns the patient to a life of celibacy, and this we had to explain to her before commencing the operation; so great, however, had been her sufferings during seven years of incontinence of urine, that she willingly consented to anything we might suggest which would rid her of her infirmity.

ON THE NATURAL MINERAL WATERS OF LEAMINGTON.

By R. EARDLEY WILMOT, M.B. Lond., &c.

The influence of fashion over therapeutics is a thrice-told tale, and has been dwelt upon by many authors, and from almost every point of view from which comment and illustration has seemed possible. In no respect, it seems to me, can more decided confirmation be found of this truth, well worn yet ever new as it is, than in the rise and fall of the popularity and use as health-resorts of our English mineral watering-places. I have no intention, in this paper, to dwell upon the virtues and desirability of our English mineral Spas in general, or, indeed, to give more than a passing glance at any besides that one (the Royal Leamington Spa, as it delighted to call itself fifty years ago), in which my lot is at present cast. Suffice it to say, that the present day has witnessed a most remarkable revival of the favour and prosperity now again rejoiced in by nearly every one of those national health-resorts which depend on their mineral springs for their therapeutic reputation. Bath, Buxton, Harrogate, even, to a less extent, Tunbridge Wells, Droitwich, and minor Spas, are astonished at their own new-found popularity, and are delightedly sunning themselves in the warmth of restored confidence. In no one of these favoured spots has any fresh health-giving influence been developed, it is simply that the wheel of fortune has again raised them from the depths, and caused a new lustre to shine over those curative virtues, which their medicinal virtues have always undoubtedly possessed.

Leamington alone has been left out in this revival; by some strange chance this Spa, the variety and peculiarity of whose mineral waters should make it second, as a place of invalid resort, to no locality in Great Britain, remains still comparatively unsought and unappreciated. Now there is no reason, as I hope to show, why this state of things should become permanent.

The Leamington waters are as abundant and as curative in their influence as they were in the days, not half a century ago, when the sick flocked there in such numbers for relief that the place sprang, with a mushroom-like rapidity, from "a cluster of insignificant thatched houses," as a writer of the day puts it, "to such a fame and magnitude as to rank among the most celebrated watering-places of the country." Nor was it any question of mere fancy and fashion. Vast numbers of remarkable and well-authenticated cures were undoubtedly performed and are still on record, and we cannot doubt that the Spa as well deserved its well-grounded reputation as any other mineral watering-place in Great Britain or in Europe. No article on the subject of the Leamington waters could be complete without mention of the late Dr. Jephson, the *genius loci* of the place, the remarkable man under whose strong individuality the unprecedented growth of the Spa was attained. We doubt if in the annals of medicine any more extraordinary achievement is on record than this, the development of a humble Midland village into a large and populous town by sheer force of personal energy and talent, in insisting upon the virtues of a mineral water which had at most, before his day, but a narrow and local repute. Yet this great man was himself the first always to aver that he owed his success not solely, or, indeed, principally, to his own exertions, untiring as they were, but to the actual beneficial effects of the mineral water, upon whose fame his own advancement had been based. The decline of the Leamington Spa, as a health-resort, since the days of exceptional favour and prosperity which I have indicated, has been due to a variety of local causes, but not in any degree to an alteration in the chemical character or capacity of the springs. Of these local causes none, except the supineness of the Corporation authorities, and their blindness to their own best interests, exist at the present day. There is no reason, social, physical, or scientific, why the Royal Leamington Spa should not at once be restored to its old position of public favour and resort. The climate is as equable as ever, the town as well built, well drained, and well cared for; the surrounding scenery as choice, and the means of public amusement and relaxation even more numerous than in the days of its fair fame. The waters gush as ever from the parent springs, and the diseases to which they have an undoubted and well-proven therapeutical affinity are as common and as grievous as of old. We want simply the sun of fashion to shine upon us, and we

anticipate with some confidence the withdrawal of those clouds of obscurity and neglect which have gathered round us.

What, then, let me show, in the first place, is the composition, as shown by analysis, of the Leamington Spa water; and what, in the second place, are those forms of disease in which a course of these waters may reasonably be advised? According to Loudoun, who wrote in 1831, the author to whom I have before referred, there were, at that date, no fewer than *eleven* medicinal springs in actual use. These varied considerably in chemical constitution, and it was, in fact, upon this "number, variety, and abundance" of the mineral springs "uniting in a single spot, waters similar to those of Harrogate, Tunbridge, and Cheltenham," that the reputation of the Spa was based. It would appear, indeed, that in the basin or depression in which old Leamington was placed, a stratum, or various strata, of saliferous, chalybeate and sulphurous character underlay the surface, and that, by this means, the waters of the springs, to an extent corresponding with the depth from which they emanated, became medicinally impregnated. These eleven springs were classified by our author under three main heads—the saline, the sulphuretted, and the chalybeate. It could never be maintained, however, that the sulphuretted and ferruginous springs, though actually existing, could claim such strength of impregnation, as to compete successfully with the waters of other Spas (such as Harrogate and Tunbridge), in which the sulphur and iron are contained in much larger, and more truly medicinal, proportions. It was the saline springs to which, of our local waters, the chief fame attached in the past; and it is upon these that we must chiefly depend for our good repute in the future. The saline springs at present in use are four in number, and, though differing somewhat in the amount of solid ingredients which they severally contain, they have practically such an identity of composition, that but slight direction is necessary as to which spring, in any particular case, should be made use of. The waters, as drawn from the pump, are cold, sparkling and transparent, containing a considerable quantity of carbonic acid gas in solution, which escapes, with a slight fizzing noise, while the glass is held in the hand.

On analysis they yield, according to Braun (1875; translation, edited by Hermann Weber) per imperial pint as follows:—

Sulphate of Soda.	Chloride of Sodium.	Chloride of Calcium.	Chloride of Magnesium.
28 to 40 grains.	40 to 60 grains.	20 grains.	3 to 12 grains.

About one grain of iron, with traces of bromine and iodine, and two to three cubic inches of carbonic acid. The amount of each salt varies according to the spring from which the sample is taken. The taste varies also, from the same cause. All the springs contain a trace of sulphuretted hydrogen, but scarcely in medicinal or curative dose.

This author (Braun) observes, "We can see no reason why Leamington should not again become a much frequented and useful watering-place, the more so as in many instances it may be resorted to in early autumn, or even winter, on account of its great mildness of climate compared with Continental Spas." It would seem, indeed, that mineral waters, inexhaustible in quantity, and having such a decided saline composition as that above indicated, should not be allowed to fall into disuse and non-repute. There are most undoubtedly a large class of diseases for the relief of which, on account of their mixed saline and aperient effect (due to the sulphate of soda which they are shown to contain), they must have a valuable influence. Such diseases are dyspepsia, hepatic, portal or uterine congestions and their results, and many diseases consequent upon sedentary employment or too-generous diet. It was, indeed, to the *bon vivans* that Jephson, in the old days, more especially addressed himself, and among this class of sufferers that he obtained some of his most remarkable successes. And there can be no doubt that now, in the present day, those forms of dyspepsia and congestive conditions of internal organs, induced by alcoholism or other intemperance in eating or drinking, late hours, or the general atonic condition which follows, as a Nemesis, the enjoyment (*à la mode*) of the London season, might be distinctly and rapidly benefited by a course of such waters as these. That, this, indeed, is the fact, the experience of all on the spot, who have combated such conditions by these means, will amply testify. Other of the saline ingredients tend more especially to the production of diuresis, and hence to the relief of chronic gouty, and rheumatic affections. Some remarkable cures of sciatica and allied complaints are on recent, as well as ancient, record. It is also a matter of common observation here, how materially the influence of chalybeate remedies in anæmia, chlorosis, &c., is aided by the exhibition, at the same time, of the saline Leamington waters. This is not due to the fractional quantity of iron which the waters themselves contain, but rather to the action of the salines, in aiding assimilation and absorption, and producing regularity of evacuation, in counter-action to the astringent effects of the ferruginous preparations.

The sulphuretted hydrogen, iodine, and bromine contained in these waters, though appreciable in quantity, are yet in such small proportion, that, in my opinion, their medicinal effects may be practically disregarded.

But there is another ingredient of these waters, on the influence and success of which, as a curative agent, I should be disposed to lay much greater stress now than was done either by authors or physicians in the past. In the *Chloride of Calcium*, which is contained in the Leamington waters, in the large proportion of gr. 20 to the pint, I believe we have a most valuable remedy. And since this proportion of the salt to the water is greater than that in which it is contained in any other mineral water of England, while the salts with which it is combined in such useful ratio, are such as to aid its action, I believe, that it is on the therapeutic utility of this chloride of calcium, that much of the future prestige of the Leamington Spa will depend. In this opinion I am supported by that of other physicians of this place, and believe, in common with them, that an effort should now be made to promote the use of our waters on this as well as on other accounts. The action of calcium chloride upon the glandular system, as an absorbent of morbid products and deposits, is well known, and the mineral waters of Leamington have always enjoyed a certain reputation for this action. They are, indeed, in constant use at the present day in this town, and with the best results, for the purpose above indicated. Bronchocele; tabes mesenterica; strumous, lymphatic, or other glandular enlargements, in any situation, external or internal; chronically enlarged tonsils; scrofulous diseases of joints have all been severally benefited, in many well-noted cases, by the use of the Leamington Spa waters. In certain stages of phthisis, and forms of tubercular and other wasting diseases of childhood, the chloride of calcium has been believed, with apparently good reason, to exert a beneficial and controlling influence. Here, again, these waters, containing so large a portion of the salt, would be indicated. The course of chorea has been supposed to be favourably

influenced and shortened by the action of this agent, and though on this point further evidence may be desirable, yet the waters, combined with other tonic and hygienic treatment, might seem to be suggested. Sarcinous vomiting has been so often successfully treated by chloride of calcium, that the remedy scarcely needs additional advocacy in this direction. It is on record, by many observers, that uterine fibroid tumours have their growth checked, and their degeneration accelerated, by the exhibition of the calcium chloride. Such cases have been undoubtedly observed here, under the use of the mineral waters.

Here, then, we have a numerous group of diseases, for all of which our medicinal springs stand in the proved relation of curative agents, on account of the large proportion contained in them of the chloride of calcium. There are other groups of common diseases, in which, as I have endeavoured to show, the other saline ingredients exert a most markedly beneficial influence. And the rare state of combination in which these salts exist in the spring water is such, I firmly believe, as to aid their action in the greater part of the diseased conditions alluded to. I would not, of course, claim for these waters any *specific* or *unintelligible* virtue, but at least I would say, that they are superior to many other waters now in more common use. And I would submit that a case has been made out for the reintroduction of this Spa to public favour and confidence. It can hardly be that waters which were so widely and signally beneficial fifty years ago are useless now. It is merely that the wave of fashion has not yet rolled back in our direction.

As to the manner in which the waters should be taken, experience has shown that the dose and the mode, the frequency and duration of their administration, and the spring which should be selected, must vary to a great extent with the case under treatment. No general rules can be laid down, and no special cases described or enumerated, in a paper of the dimensions of my present one.

As to the time of year at which these waters may be recommended, it may be safely said that they may be taken internally, in suitable cases, at any season of the year. From May till October is, however, the season most adapted for their exhibition. The pump-room and bath accommodation are ample, and now that the Corporation are again moving in the matter, there can be little doubt that appliances for the employment of all modern forms of Balneotherapy will be supplied in perfection. That this has scarcely, of late years, been the case, has been due to the coldness with which our Spa, in common with others, was for many years regarded by the public. Now, that the revival of the mineral Spas of England is an accomplished and welcome fact, we hope that the Royal Spa of Leamington, as deserving, I believe, as any in this country, will again rejoice in public favour and support.

Active Interference in the Management of Abortion.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an article by Dr. H. Spöndly, of Zürich, on the above subject. The interference which he recommends is simply that, in every case of abortion, the medical attendant should take care that nothing is left in the uterus, should completely remove placenta and membranes; and that in every case of threatened abortion, where the hæmorrhage is profuse, and does not yield to treatment, the uterus should be emptied as soon as possible. The expulsion of the placenta should not be left to nature. In this recommendation there is of course nothing novel, nor has Dr. Spöndly any new instrument, or method of effecting the desired end. The main importance and interest of the paper is in the fact, that the author gives a series of 53 cases in which he acted on the principles which he lays down, and with uniformly good results.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SEAMEN'S HOSPITAL, GREENWICH.

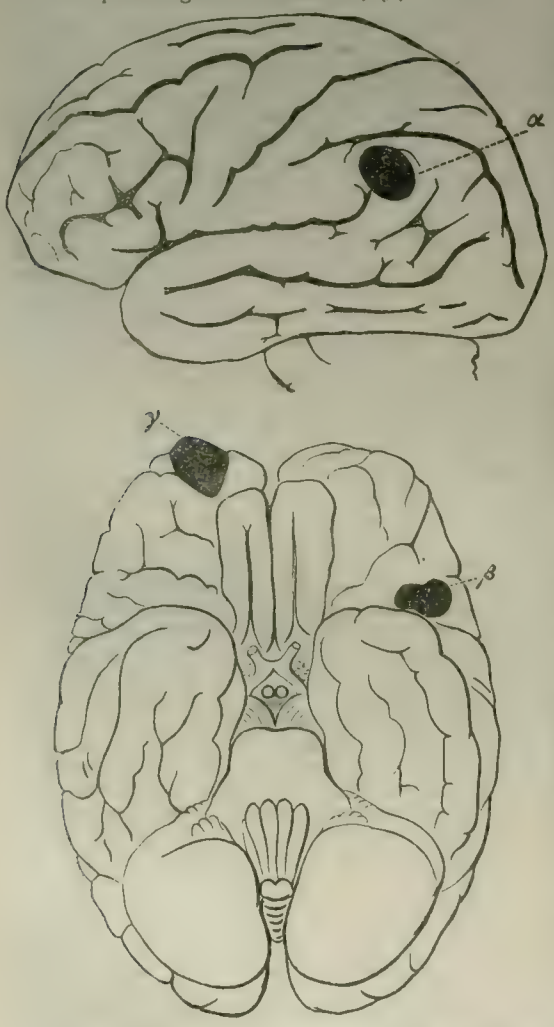
SYPHILIS—APHASIA—GUMMATA IN THE CEREBRAL CORTEX.

By JOHN CURNOW, M.D., F.R.C.P.,
Physician to the Seamen's and King's College Hospitals.

J. L., an American, aged 32 years, was admitted into the Seamen's Hospital on November 30th, 1881. He gave a clear history of primary syphilis five years previously, followed by a slight secondary rash and sore throat. Two weeks previously he had an abscess on the left side of the face, when a small piece of the lower jaw exfoliated. He had suffered from three attacks of gonorrhœa, and frequently from what he called rheumatism. Otherwise his general health had been good, and he had suffered from no acute illness.

When admitted, although quite conscious, he could scarcely utter a word, and was evidently suffering from severe pain in the head. He vomited frequently, his tongue was furred, and his bowels were constipated. His pulse, respirations, and temperature were normal, and there was no albumen in the urine. His heart and lung-sounds were quite normal; there was no paralysis of his face or limbs. Some time afterwards he gave this history of his attack—"I was working on board the ship, which was then in the docks, and suddenly found, on one of my mates speaking to me, that I could not answer him. I had a severe headache, but no fit. It came on all at once. I was not paralysed." This occurred on the morning previous to his admission. He was at once ordered a purge of calomel and jalap, his bowels acted freely, and the sickness soon passed off, although the headache remained. He took 30 grains of iodide of potassium every four hours for some days, and then three times daily until December 14th. His aphasia gradually disappeared, and on December 10th he could name things readily, count up to ten, although he hesitated over the number five, and write plainly and without a mistake when asked to do so. He could read aloud and spent some time over a book, but after he had read two consecutive pages, had no recollection of what was on the first page. These facts were clearly made out by repeated observations. On the 14th, he complained greatly of pain in the head, and limited its seat by drawing a circle over the left temporal region from a little behind, and on a level with the angular process of the frontal bone, to just above and as far back as the external ear. He could now read for some time without forgetting the context. On this day, perchloride of mercury, in $\frac{1}{16}$-grain doses, and 10 grains of iodide of potassium were substituted for the larger doses of iodide, and a blister was applied over the seat of pain. On the 18th, he said that the pain was much less, but that he felt a numbness, as if he had been struck with something heavy like a sand-bag. His aphasia had almost completely disappeared, and only an occasional hesitation, like a stammer, could now be detected. On the 24th, the pain was quite gone, he could read and speak quite well, and was doing some of the lighter work in the ward. He remained in good health until January 14th, when he was again attacked with headache and vomiting. In spite of treatment (including blisters and a seton) these symptoms continued almost without intermission, and towards the end of January he

gradually became unconscious. On the 30th he passed his urine and fæces beneath him and gradually getting weaker, without regaining consciousness, or exhibiting any fresh symptoms, he died on February 4th. Permission could only be obtained to examine the brain. On removing the skull-cap, the internal surfaces of both parietal bones were slightly roughened and diseased, especially the left parietal eminence, and the posterior wall of the pituitary fossa was also carious. The meninges were somewhat congested, and adherent over the tumours described below, but there was no diffuse meningitis. Three tumours were found on examining the cortex; (*a*) one, the size of half-a-crown superficially in the left supra-marginal convolution; (*β*) a second, the



size of a filbert on the orbital surface of the left frontal lobe just in front of, but not invading, the fissure of Sylvius; and (*γ*) a third, superficially as large as a shilling, on the orbital surface of the right frontal lobe, outside and in front of the triradiate sulcus. The position of these tumours is shown in the annexed woodcuts. The rest of the cortex and the islands of Reil were quite healthy. The middle cerebral arteries were quite pervious throughout. On careful examination it was found that the tumours involved the grey cortex only, and there was no softening, redness, or other indication of a diseased condition of the white fibres beneath. In fact, the tumours broke down easily, and their deeper soft parts could be washed away by a stream of water, so that their extent could be readily ascertained. The interior of the brain was quite normal. A microscopic examination of the tumours showed the usual features of syphilitic gummata.

It is important to notice the great accuracy with which the headache corresponded to the site of the principal lesion, and the failure of anti-syphilitic treatment in the second attack, although in the first attack the recovery of the patient during its exhibition was very rapid, and the daily progress most marked.

The case also presents some interesting features in relation to the localisation of the functions of the brain. In the earlier attack aphasia was the only functional disturbance indicating a central lesion; in the later attack the patient gradually became weaker and died comatose, without any recurrence of the aphasia. Broca's convolution—the posterior extremity of the third left frontal—was undoubtedly healthy, and had not undergone any compression, nor did the membranes over it show any sign of former disease. The tumours (*β* and *γ*) on the inferior surface of the brain involved no cranial nerve, and, as we learn from the experiments of Ferrier that the results of stimulation or removal of the orbital gyri are negative, we may with tolerable certainty leave them out of consideration.

The lesion in the supra-marginal convolution (lobule du pli courbe), is more important, for this corresponds most closely with Ferrier's visual centre, and as the tumour was limited very definitely to this lobule, and did not extend into either the temporo-sphenoidal lobe, the ascending parietal convolution, or the postero-parietal lobule, the absence of any interference with hearing, or with the due understanding of ideas conveyed by sound, or of any disturbance of the motor functions of the hand or foot, may be readily explained. The aphasia was peculiar in the fact, that after the patient had recovered his memory of words and the proper use of them, as well as his power of calculating and of writing, he could not remember what he had been reading just previously, and as he still went on with his reading, and turned over the leaves just as if he appreciated its meaning, it was obvious that he attached no real signification to the words which he saw and uttered.

Cases in which patients preserve their intelligence and their power of expressing ideas by writing, whilst incapable of reading or of grasping the signification of the words the letters form, have been described by M. Magnan and other French observers as *cécité des mots*, and an interesting example, in which the supra-marginal convolution was involved in a sarcomatous growth, was communicated to the Société de Biologie, in June, 1880, by Dr. Déjérine.[1] In these cases the centre for the formation of the words which are applied to our mental images as formulæ or names, may be intact. This formulation seems to be the special function of Broca's convolution.

But for forming a complex mental image of an object, various centres such as sight, touch, smell, hearing and taste are all necessary, and if the visual or other centre be impaired there will be, by so much, a relative deficiency in the formation of the mental image itself to which the name is applied. Between seeing an object and giving utterance to its name, a complex nervous mechanism must intervene, apparently necessitating connections (*a*) between the retina and the corpora quadrigemina; (*β*) between these bodies and the cortical visual centre; (*γ*) between this and Broca's convolution; (*δ*) thence to the nerve-nuclei in the medulla oblongata; and, lastly, through their special nerves to the muscles, articulation. A deficiency in the vividness of the mental image might afford a possible reason why the meaning of the word is sometimes lost although

[1] "De la Cécité et de la Surdité des Mots dans l'Aphasie," par Mdlle. Skwortzoff. A most able thesis, kindly lent to me by my colleague, Prof. Ferrier.

the letters which make it up can be spelt correctly, and why a person may read on and on forgetting the significance of the preceding passage or sentence. The mental image impressed upon the visual centre is not sufficiently powerful to recall the memory of a former presence or to be reproduced, and so a break in adapting the new image to the meaning of the words he reads may occur on the receptive side of his cerebral mechanism.

Medical Times and Gazette.

SATURDAY, APRIL 12, 1884.

THE most noteworthy feature of the debate on the third reading of the Government Medical Bill was the speech in which Lord Camperdown bestowed his benison upon the measure ere it left the Upper House. We cannot flatter the noble Earl by a belief that his approval of the Bill will in any appreciable degree facilitate or hasten its progress in the House of Commons; for his Lordship highly approved of the Bill last year, and yet it never got beyond the threshold of the Lower House. Still, as Lord Camperdown is a man of marked ability and power, and was chairman of the Royal Commission on the Medical Acts, he speaks on the subjects of Medical Reform with an authority and weight to which very few laymen can have any claim. His support has, therefore, undoubtedly been of considerable value to Lord Carlingford; and it is of interest and importance to find that he still very decidedly holds the opinion that the Bill ought not to add to the already bewilderingly numerous medical titles granted in the United Kingdom by authorising the new Board of Examination to create a new title. He thinks that Lord Carlingford has gone to the furthest extent of conciliation in dealing with the claims of the Medical Corporations; but, on the whole, he approves the measure, and hopes the Government will press it forward as much as possible in the House of Commons. It is still uncertain what kind and degree of opposition the measure will meet with in that House. But so far as time for consideration there is of importance, it has a somewhat better chance of success now than it had last year, as it leaves the Upper House at the commencement instead of at the very end of April.

ON Monday last, that having been the first Monday after Palm Sunday, the Fellows of the Royal College of Physicians, in accordance with their laws, met in College to elect a President. Other business may be and is transacted at this fixed assembly, but on no other day in the year and at no other meeting can the election of a President take place. The occasion is always, therefore, one of special interest and importance, and rarely has this been more markedly shown than it was this year. The business of the College has of late years steadily increased, till the demands on the time of the President have become extremely onerous; and it had for some time been an open secret that the retiring President, Sir William Jenner, would not feel able to accept the honour of re-election unless the College could find a method of relieving their President from the burden of some of his routine and less important duties. According to the present by-laws of the College, "in all cases of the unavoidable absence of the President, or of his inability to act, he shall appoint a Fellow of not less than ten years' standing, who shall act as his *vicarius*"; and this provision was quite sufficient while the duties of the President were so light that even a very busy man could fulfil them without any serious sacrifice or inconvenience. But that is far from being the case now, and as the expediency and desirability of giving the President relief has become more and more apparent, it has been more and more felt that the method of relief prescribed by the existing by-laws, is inadequate and cumbersome. It is inconvenient and not dignified for a President to have to search, on emergencies, for a fitting Fellow of the College who can and will oblige him by acting as his substitute; and on Monday the Fellows met with the desire and intention to find a ready and expedient mode of lightening the burdens of the Presidency, and of, if possible, retaining for the College the services of the retiring President.

BOTH intentions were happily and fully carried out. In a College of more than 100 Fellows, Sir William Jenner was, for the third time, re-elected President, by what was practically a unanimous vote, no other Fellow except Sir William Gull obtaining more than a single vote. And the Fellows passed, for the first time, a resolution to the effect that "two Vice-Presidents shall be added to the officers of the College," and appointed a Committee to draw up a scheme of regulations for the appointment, position, and duties of the new officials. The College may well be heartily congratulated on these results. There can be no question that their President ought to be provided, in a direct and dignified way, with officers whose duty it shall be to relieve him, when he wishes it, of some of the routine duties and the least important labours of his office; and it would have been a deplorable mistake had any hesitation on the part of the Fellows, to afford the needed assistance, deprived the College, in these days of impending medical legislation and changes, of the guidance and counsel, as President, of a man who has acquired such influence with, and enjoys in such an exceptional degree, as Sir William Jenner does, the trust and confidence of, all classes of society.

BEFORE proceeding to the formal business on the Agenda paper of the day, the President proposed, in brief and very feeling terms, addresses of condolence, on the part of the College, with Her Majesty the Queen, and the Duchess of Albany, on the grievous loss they have sustained in the death of His Royal Highness the Duke of Albany. In moving those addresses, Sir William Jenner dwelt especially on the regard the late Duke felt for, and the interest he took in, all that particularly concerned the profession. Several Fellows of the College had had opportunity, he said, of attending the Duke of Albany, and he never forgot their services. During his prolonged delicacy

of health, and his many illnesses, he must have frequently been tempted, if not urged, to avail himself of the services of some of the loud-voiced and vain-glorious boasters among irregular practitioners; but his intelligent trust in the scientific practitioners of our Art had never failed, and confidence in them had wavered never. In this, as in many other respects, he had set a brilliant example to the educated classes of society. The proposed addresses were, of course, unanimously agreed to.

An Amended Report was presented by the Committee, appointed by the College to draw up suggestions regarding the new edition of the Pharmacopœia. The Committee recommended the addition of thirty-three substances; the omission of three (Digitalinum, Dulcamara, and Enema Tabaci); alterations in the composition of a few others; and changes in the recommended doses of some eight preparations. The Committee further suggested that Calamine and the Spiritus Ætheris Sulphurici Compositus (Hoffman's Anodyne) be restored to the Pharmacopœia. After some slight discussion, and the rejection of a proposal to omit, from the list of recommended additions, the Iodide of Ammonium, the Hydrochlorate of Apomorphia, Gelsemium, and Hyoscyamin, the Report was adopted, and directed to be transmitted to the Pharmacopœia Committee of the General Medical Council.

Among other matters that came before the College, it may be mentioned that it has been decided that in future the Harveian Oration shall be given on St. Luke's day (October 18th), the day on which it used to be delivered, and on which Harvey's remains were consigned to their new resting place. The College was asked, and after due consideration agreed, to pass for the first time a by-law enacting for this year, that the election of Members to the Fellowship of the College shall take place at a meeting to be held on the last Thursday in May instead of on the last Thursday in April, as is required by the existing by-law on the subject. No Member can be elected to the Fellowship unless he has been previously nominated by the Council; and as, while at ordinary meetings of the Council five members form a quorum, at those meetings at which members of the College are selected for nomination to the Fellowship, the quorum must consist of at least fifteen members of the Council, it is not difficult to imagine a failure, now and then, to form the necessary quorum. Such a failure has certainly been, to say the least, very rare; but its actual occurrence has been the cause of the enactment of a new by-law *pro hâc vice*.

At the Medical Society, on Monday last, Dr. Joseph Coats, of Glasgow, read an interesting and suggestive paper on "Compensatory Hypertrophy." After defining the term, and drawing the distinction between it and hyperplasia, he proceeded to examine the organs of the body individually, and pointed out how and under what circumstances they took on this compensatory hypertrophy. In the heart we are all acquainted with the process, but in the liver, and in the lung, and intestine, for instance, we are perhaps less familiar. That it exists, however, Dr. Coats pointed out; and further, that its function is the same wherever it occurs. It was shown that it is most easily produced in young and growing individuals, and most frequently absent (when absent) in cases where the nature of the disease tended seriously to deteriorate the general health and nutrition of the body. Dr. Godson then read a paper on "Retroversion of the Gravid Uterus."

At the Royal Medical and Chirurgical Society, the now well-worn subject of Myxœdema was again to the fore. Dr. Harley described the disease as a "chronic cold debility," a condition which was subsequent to a form of chronic inflammation long past. It was the result of depressed vitality, and associated with fibroid changes in the lungs. The pleurisy or pneumonia, which always preceded the onset of the disease, invaded the thoracic sympathetic ganglia, and led to secondary changes in them, which changes were the source of the disease.

Dr. Wolfe showed to the Glasgow Medico-Chirurgical Society, on the 4th instant, a case of total blindness from detachment of the retina, in which perfect sight had been restored by an operation performed a fortnight previously. This is the sixth successful case which he has published since he introduced the operation in 1878. Dr. Wolfe thought this case the more remarkable, because after operating on the 14th February, with only a moderate degree of success, he repeated the operation on the 21st, and obtained a completely satisfactory result. The patient could see the time on a watch to a minute, follow with his finger the movements of the small second's-pointer, and see a ring on the finger at a distance of fifteen feet. This is the first time that Dr. Wolfe has ventured to repeat the operation on the same eye. He was encouraged to submit this case to the Society, because he subsequently learned that, previous to his admission to the Ophthalmic Institution, the patient had been treated in another eye infirmary, from which he had a ticket marked "Irido-Choroiditis and Separation of the Retina," so that there could not be any doubt as to the nature of the affection. This corroborative evidence from an independent source, he regarded as necessary in the present condition of the science. For, at the meeting of the French Ophthalmological Society, held on January 24th, 1884, M. de Wecker stated that, after failing in all operative attempts, he had lately been trying revulsive measures by the repeated applications of the cautery (*pointes de feu*) to the surface of the sclerotic, and M. Galezowski recommended that the patient be kept in a horizontal position for many months without a moment's intermission. The President and the other members congratulated Dr. Wolfe upon the success which he had achieved in an affection considered by the highest authorities as incurable. In this congratulation we cordially join. To lay bare the sclerotic, rotate the posterior pole of the eye forwards, and withdraw the dropsical effusions from the retina with precision, just as we tap any other cavity, is certainly not the least of Dr. Wolfe's original contributions to ophthalmology.

A PAPER of great interest was read by Mr. James Thompson, the well-known geologist, on the evening of the 2nd instant, before a meeting of the Glasgow Philosophical Society, on the "Prevalence of Rickets among Children, especially in Glasgow and its neighbourhood." Mr. Thompson stated that a large minority of our rising generation are growing up more or less deformed, partly on account of insufficient nursing while young, and partly, and to a large extent, by reason of the absence of lime in Loch Katrine water, a fact which has already been repeatedly advanced by different medical authorities. He, however, laid greatest stress on the gradual disuse of oatmeal as an article of diet among our working-class population, and the substitution of white bread in its stead, which he characterised as a mass of deception. Another cause for the present state of matters, was the largely increased use of sugar in various forms; the weak legs of the children, he contended, were unable to bear the weight of the sugar-fed bodies. The statistics brought forward by Mr. Thompson, in support of his views were both curious and interesting, and are likely to lead up to some discussion on the subject.

THE members of the Société de Thérapeutique continue to discuss aconitine in its Protean changes. M. Gueneau de Mussy raised two awkward questions at the last meeting, wanting to know what scientific proofs there were for asserting—(1) that crystallised aconitine underwent in time a transformation into another substance with different properties; (2) that crystallised aconitine possessed, according to its mode of preparation, a varying activity. M. Petit attempted to answer these questions by referring to three alkaloids—pseudaconitine, obtained from A. ferox; aconitine, from A. napellus; and japaconitine, from the Japanese aconite. He concluded by saying that the only product to be employed therapeutically with confidence, is crystallised aconitine, prepared from A. napellus by Duquesnel's process. In connection with this question it may interest our readers to reproduce Dr. Stevenson's remarks in the Guy's Hospital Reports. "Dr. Thudichum has shown me a specimen of nitrate of aconitine, made by M. Petit, of Paris, in very white and silky crystals .... which, he informed me, was more potent than Morson's preparation. I regret that an application made by me to M. Petit for a supply, has met with no response; and I regret this the more, as the sole fatal case of poisoning by aconitine, prior to the death of Percy John, was due to the administration of Petit's preparation."

AT a recent meeting of the Académie de Médecine, M. Luys, whose name is well known in England from his able monograph on the brain and its functions, in the International Scientific Series, undertook to show that the cerebral hemispheres were capable of undergoing a limited change of position in accordance with varying attitudes of the body. He maintained that these changes take place in a living organism as well as in a corpse. He considered that these movements might explain a considerable number of morbid cerebral manifestations in the anæmia of convalescence, in seasickness, and in some mental affections. If these experiments are confirmed there seems every probability for believing that the words "activity of the brain," will acquire a new meaning in future generations.

IN a report, read by Prof. Brouardel at the last meeting of the Conseil d'Hygiène et de Salubrité de la Seine, on the desirability of disposing of the remains of bodies after dissection by cremation, he came to the conclusion that public hygiene would have nothing to fear from the incineration of these remains, provided it was done in proper furnaces, so as to prevent the disengagement of all smells; and that such disposal of these remains would entail no ill effects in a medico-legal point of view. The Conseil adopted these conclusions. The sooner the example is followed in thus disposing of the remains from the dissecting rooms, in lieu of the present plan of interment, the better.

SOME months since, M. Quentin, Director of the *Assistance Publique*, issued an offensive circular in which, partly on economical grounds, and partly because in his opinion it was of no use, whether as diet or medicine, he peremptorily ordered the use of beer to be discontinued in the hospitals, and that without consultation with the medical officers as to the effects likely to follow this suspension. This procedure excited much indignation; and profiting by the experience thus gained, the director has recently addressed another circular to all the principal medical officers of hospitals, asking for their co-operation in his attempt at reducing extravagant expenditure. And judging from the figures that the *Union Médicale* (March 13th) publishes, it would seem to be high time that somebody interfered, especially when "no harm will be done to the interests of the patients" thereby. According to these, from 1855 to 1882, the consumption of alcohol increased from 1,256 litres to 77,155; of camphorated brandy from 3,467 to 23,013; of cordial wine from 35 to 3,191; and of natural mineral waters from 1,108 to 18,508. During this interval the number of days of treatment increased from five to seven million—so that while this increase is not extreme, that of the expenses is immoderate. On some points the increase has been legitimate, as in the case of carbolic acid, the consumption of which has risen from zero to more than 5,000 litres; but the increase in the use of pepsin from zero to 43,750 kilogrammes, will naturally excite some surprise. The consumption of sugar has also increased from 102,611 to 201,397, that of the syrup of orange-peel from 205 to 6,942, that of tartaric syrup from 8,925 to 17,055, and that of glycerine from 202 to 10,120, so that it is evident that there must be serious mismanagement somewhere. The gravest abuses have, indeed, been brought to light, from which it is easy to understand "how it is that in 25 years the hospital population have come to drink two million litres of *vin ordinaire* instead of one, and 128,000 litres of *Vin de Banyuls* instead of 17,000, and why the consumption of milk exceeds 2,700,000 litres, at a cost of more than 700,000 francs."

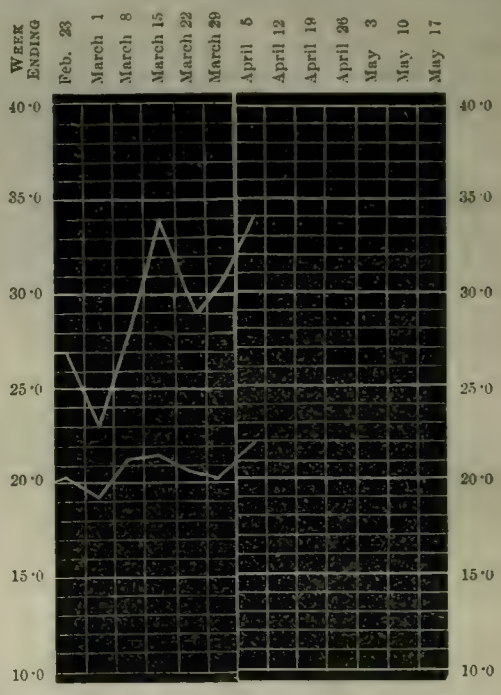
THE seventh award of the Riberi Prize of 20,000 lire (800*l.*) will have as its subject "Embryological

Researches, with especial regard to the Anatomy, Physiology, and Pathology of Man." Printed or manuscript works in the Italian, French, or Latin languages are admissible; and the MSS. will remain the property of the Turin Academy of Medicine. All competing works or essays must be delivered at the Academy before the 31st December, 1886.

Struck by the very large quantity of glucose which the mammary gland secretes at the period of lactation, it occurred to Prof. Paul Bert to investigate the source of this saccharine product. In order to solve the problem, he has been engaged since 1878 in the performance of several experiments, the first results of which he has at length laid before the Academy of Sciences. The experiments consisted in the removal of the mammary glands prior to parturition, or even prior to fecundation, in guinea-pigs, and afterwards in goats. On the 22th of March, a goat having brought forth young under such conditions, it was found that she immediately became the subject of glycosuria, to a great amount, this lasting only for ten days. This fact gives us a right to conclude that the sugar of milk, secreted by the mammary gland during lactation, is furnished by the entire economy and, according to the strongest probability, chiefly by the liver. This last point Prof. Bert proposes to investigate, and communicate the result to the Academy.

An interesting statement was submitted by Dr. Russell, the Health Officer of Glasgow, at the fortnightly meeting of the Town Council, held on the 7th instant, in regard to the recent outbreak of small-pox in that city. Of the twenty-four cases of this disease recorded for the fortnight ending March 28th, Dr. Russell reports that eleven were associated in two groups, of which the first comprised six cases, all confined to a carter and his family, residing in the northern district; while the second included five compositors, all employed in one office, but living in different parts of the city. An important conclusion is arrived at from this investigation by the health officer to the effect that any cutaneous eruption should be regarded with suspicion, not alone by parties who may be attacked, but also by their employers and foremen, as within a short period a lamplighter on his beat, a carter at his horse's head, and an apprentice in a printing office were found with the eruption on them. We would qualify the health officer's conclusion by suggesting that *medical practitioners* should also be suspicious of cases of pustular eruptions on the face and other parts of the body, and if doubtful in their minds of the nature of the case, should call in the health officer, or some other capable medical man, and not allow cases of small-pox to go about under the belief that they are cases of chicken-pox.

Last week's health return for London is the most unfavourable one that has been published this year, the general death-rate being 21·9 per 1,000. The total number of deaths was still, however, 174 below the ten years' average, though the number of zymotic deaths exceeded the average by 16. The fatal cases of small-pox numbered 13, less than might have been expected from the increase in the number of cases recorded last week. There were 293 small-pox patients in the hospitals at the end of last week, compared with 284 on the previous Saturday, but only 39 new cases were admitted in the week. The mortality from measles again increased, but not materially. The fatal cases of whooping-cough rose to 125, and accounted for nearly half the total number of zymotic deaths. It will be seen in the chart that the



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of the last quarter, and the first week of the present quarter.

zymotic death-rate has again reached the point at which it was three weeks ago. In both cases, the rise was due to increase in the deaths from whooping-cough, due to a few cold nights, and not to any real spread of epidemic disease.

A fire of rather an alarming nature occurred at the Glasgow Royal Infirmary early on the morning of the 3rd instant. Immediately behind the medical wards of the infirmary, which form the southern portion of the establishment, there is a one-storey building which is used as a store, and it was in this building that the fire broke out about 4 p.m. At the time the alarm was given there were a large number of patients in the medical wards, and the utmost alarm was felt by the officials that the fire might spread into those portions and endanger the lives of the inmates. The superintendent, Dr. Thomas, in conjunction with the resident medical assistants, nurses, and other officials, exerted themselves to their utmost, and succeeded in removing the patients from their perilous position into one of safety in other wards which were at a distance from the locality of the fire. In the meantime a number of fire engines arrived and succeeded in confining the fire to the store-room in which it had originated, the contents

of which, as also the roof and many windows in the wards and staircases, were destroyed. The amount of the damage done is estimated at about 400*l.*, which is said to be covered by insurance. The origin of the fire is unknown.

We have to note the death, at a ripe old age, of a man who had won the sympathy and respect of a large number of the profession, Mr. Peter Squire, the *doyen* of pharmaceutical chemists, if not the founder of pharmaceutical chemistry. Born in Bedfordshire near upon eighty-six years ago, he was brought up in the country, and to this he was indebted for his keen observation and love of rural objects, for his early interest in botany, and his leaning to the cultivation of natural science. On coming to London, he applied his chemical knowledge so successfully to the improved preparation of drugs, that the colour and odour of each plant became recognisable in their extracts and preserved juices. At the same time he was actively engaged in the endeavour to arrive at ready means for obtaining instantaneous light, that might supersede the flint, steel, tinder-box, and sulphur matches then in use. A jet of hydrogen thrown on to spongy platinum, and little bottles of phosphorus and chlorate of potash preceded the common lucifer match, and many of his experiments aided this result. It was, however, in the pharmaceutical laboratory that his closest and most exact work was done. The energy and vivacity of his nature was applied to this, as to all his undertakings, with unwearied industry. He well earned the appointment of Chemist to the Princess Victoria, and that of Chemist in Ordinary to Her Majesty on her accession to the throne. He was one of the earliest promoters of the Pharmaceutical Society and its journal, and the author of a paper on "Preserved Juices," which appeared in the first volume of that journal, for 1841. In 1851, he published the three Pharmacopœias of London, Edinburgh and Dublin, in such a form as to show their discrepancies side by side—differences which he thus helped more than any other one man to remove, and to lay a basis for a National Pharmacopœia. The "British Pharmacopœia" at length was completed in 1864. The Companion to it, in twelve consecutive editions, showed how thoroughly in every detail can be seen the hand of a master. Till early in the present year, no lack of energy, or any diminution of memory, or of faculties remarkable for strength and precision, was observable; then, signs of approaching failure of bodily strength gradually appeared, and he passes away in the fulness of time, honoured and beloved.

The recent fire at Messrs. Pardon's, in Paternoster Row, which, had it happened a few months ago, would have been seriously felt by this journal, will, we regret to hear, delay the publication of the second and concluding volume of Dr. Morell Mackenzie's work on "Diseases of the Throat and Nose." Had not one copy fortunately been in the possession of the author, four years of unremitting labour would have been entirely lost; but the reprint will be carried out by Messrs. Pardon as rapidly as possible, and the volume, which was on the eve of publication, will, it is hoped, be brought out in three or four months.

Mr. Bright has been ill, and is recovering under the innocent ministrations of a homœopath. A few months ago Sir William Siemens was attended in his last moments by a homœopath. A few years ago the unhappy circumstances attending the death of Lord Beaconsfield called general attention to the fact that for years the brilliant statesman had reposed his confidence in a homœopath. His able lieutenant, too, Earl Cairns, the papers tell us, is attended in his illnesses by a member of the same fraternity. Here we have four of the ablest men that this century has produced all giving in their adhesion to homœopathy—four men, too, of such diverse character that it is difficult to find in them a single point of resemblance except this, that they solemnly expressed their belief by most tangible tokens in one of the most baseless superstitions that has ever found a following. It is futile for the regular practitioner to console himself with a sneer, and explain the apparent infatuation of these celebrities on the principle, *Similes similibus curantur*. Homœopathy is a superstition, and its followers are happy in holding tenets without a rag of evidence to support them But it would be absurd to credit men like the late Lord Beaconsfield and Sir W. Siemens with a similar kink in their brains.

In the old days it was the habit of orthodox believers to account for schism by assuming innate wickedness in the schismatics, or else to attribute it to the machinations of the Evil One. Modern enquirers, with more reasonableness, prefer to explain it as the result of some imperfection in the orthodox creed or its ministers. So in this matter of homœopathy, is it not quite as reasonable to suppose, that the defection of these four celebrities from medical orthodoxy is due to faults on the part of the orthodox, as that it is to a result of the overwhelming attractions of the homœopathic belief, or of the imbecility of the schismatics? At any rate, we ought not to rest until we have assured ourselves that there is no fault in us. Can we assure ourselves that the trades-unionism, which is too manifest in our ranks, that the sacrifice of patients' interests to an effete etiquette, that disloyalty to our consciences, and lapses into quackery have had nothing to do with that disgust with the orthodox profession which is seen in the rebellion of such minds as those of Lord Beaconsfield, Sir W. Siemens, and John Bright? If we can, well and good; if not, then it is high time that we mended our ways. Let us mend them!

The exact *rationale* of nerve-stretching, and how it is that harm does not frequently result from the tearing away of some of the nerve fibres from their attachment to the spinal cord, must have exercised the minds of many people during the last few years, since nerve-stretching has been tried for every imaginable form of nerve disorder. A good explanation of the impunity with which this little operation is daily performed is given by Mr. Cantlie in a paper read before the Medical Society of Charing Cross Hospital, and published in the last number of the *Bristol Medico-Chirurgical Journal*. He there says that some years ago, when dissecting the sciatic nerve of a frog, he noticed a peculiar but very decided spiral or coiled

appearance of the components of the nerve trunk. On stretching the nerve the coiling disappeared, but on relaxation it appeared again. He had surmised at the time that it had to do with permitting the nerve to accommodate itself to the movements of the hip-joint. He has since examined most of the nerves in the human body from this point of view, and found the same spiral or coiled appearance in all the nerves which are in a position to be stretched. It was especially well marked in the nerves of the tongue and the penis. Nerves running through long canals did not show it. The nerves of the hand and foot lose the condition when near their extremities; thus the median and ulnar cease to show it about half way down the fore-arm, and the nerves of the leg, markedly the anterior tibial, have no trace of it. The nerves about the knee and elbow joints, where there is plenty of movement, show it well.

We have received the following from a correspondent:—It will possibly interest the readers of the *Medical Times* to hear that a very admirable portrait of the President of the College of Surgeons has been painted by Miss E. M. Merrick, which, if the verdict of his friends be accepted, should gain a distinctive position amongst the works of the rising artists of the year at the forthcoming Academy Exhibition. The artist, who has already achieved considerable distinction, both at last year's exhibition, and at the exhibitions of the Society of Lady Artists, gained last year the first prize at the Royal Academy School for a study from the life, and was for this reason selected by Professor Marshall to paint his portrait from among the students, to whom he is the popular lecturer on anatomy.

J. writes to us as follows: — In noticing the *Memorials* of Mr. South (April 5th, p. 461), your reviewer says, "There are next to no blunders." There is one, quite excusable, which would be detected by none but old St. Thomas's men. Mr. South mentions his being fetched to the hospital "by guard," and the editor explains in a note that Mr. South was surgeon to a railway company. I believe this is a mistake, however; the word "guard" should be "Gard." This was the name of the surgery-man, whose duty it was to summon the surgeon or assistant-surgeon to accidents.

A great injustice is done to many nervous sufferers because their medical advisers *lack imagination*. They would do anything to help a patient in a fever or in a pneumonia, but if he suffer from symptoms wholly "subjective," or which cannot be put into very definite language, the doctor is tempted to say it is all nonsense, or that he cannot understand his complaints. He tells his patient to "throw it off," or to "make an effort to feel like other people." The remarkable symptoms described by Mr. South, which were quoted in this journal last week, in view of the great interest recently aroused in this subject by Dr. Clifford Allbutt's lectures, have led us to some such reflections as these. We would suggest to our readers that some kinds of ailments would be better treated by them, because better realised, if they would store up in their memories the experience of those moments which have intruded, occasionally at least, into the lives of most men, namely, those moments of irritation, fretfulness, and "nervousness," which have followed overwork, anxiety, or fatigue. Strong persons pass rapidly through these phases, but how pitiful must be the state of those who are "chronically" in such a state! Persons, whose nerves are always "highly strung," who only keep steady and tolerant by incessant watchfulness and hard effort, are indeed sufferers, although they have no "physical signs." How far such persons can slowly modify their physical habits, so as to alter their physical states, is too abstruse a question for us at present, but that such states are real enough and distressing enough must, we repeat, have been revealed at times, if but by glimpses, to every man and woman. To remember our individual experience of these times of fidgets and "hyperæsthesia," would humanise the practice of all of us.

Those who are interested in the College of Surgeons will be pleased to learn that the Council have awarded a sum of 500*l.* to Mr. Trimmer, in recognition of the zealous activity he has displayed during the twenty-five years that he has been in their service.

In the *Alienist* and *Neurologist* for January is an excellent article by the editor, Dr. Hughes, upon the opium habit—the opium psycho-neurosis he calls it—which seems to be of very much more frequent occurrence in America than it is here. The treatment is fully described, and the author gives the assurance that "it is surprising with what little real suffering a patient, who has tried so often in vain to relieve himself, can be conducted through the successive steps leading to the abandonment of this powerful drug, if it be not too precipitatively done." The same number of this quarterly is enriched by a translation of Professor Tamburini's important paper on "Doubting Insanity," and by an article of the late Dr. Ray, on "Testamentary Capacity."

The *Journal of Mental Science* for this quarter is a good representative number, the original articles representing all phases of work in the specialty, from the most minutely and severely practical to the highest and driest of speculative writing. To the former class belong Dr. Savage's paper on the "Constant Watching of Suicidal Cases," and Dr. Mickle's article on "Rectal Feeding and Medication"; while the latter is represented by Professor Herzen's essay on the "Physical Conditions of Consciousness," and a fourth instalment of Dr. Mercier's series of papers on the "Data of Alienism." Dr. Major and Dr. Warner contribute articles which occupy a middle place, and have titles too long to be quoted. The lithographs of brains, by which some of the clinical cases are illustrated, deserve special commendation for their artistic merit.

Occasionally some details of more than passing interest are to be gathered from the annual reports of Medical Officers of Health. Dr. John Shea, in commenting upon the sanitary history of the borough

of Reading, for the past year, in connection with increase of population, states that at the beginning of the sixteenth century the population of the town of Reading numbered 4,700, and that it took 200 years for that population to double itself, since, in 1801, the inhabitants of the town were returned as 9,742. In more recent times, however, about thirty years has been sufficient to double the number of its inhabitants; thus, in 1850, Reading contained 22,716 people, while at the present time the population is calculated at 45,000. In the year 1831, the death-rate of Reading was twenty per 1000; in 1841 it was 24·5; and in 1849 it rose to thirty. The average of the last five years, however, gives a rate of 17·32 per 1,000, and that for the year 1883, just completed, is still lower, viz., 15·90 per 1,000.

THE LUMLEIAN LECTURES.

The desire for finality in science and philosophy, which is, perhaps, a pardonable human weakness, is evinced in a marked degree by the medical mind. We readily and perforce recognise the *vita brevis*, but in our eagerness to settle important questions, the no less inevitable *ars longa* is apt to fade from our mental vision. Considering the main reason of our existence as would-be healers of men, and the important dependence of our practice on the notions we entertain as to the causes of disease, this tendency to rush at conclusions may be largely excused on the one hand, while it is equally to be deplored on the other. The long-vexed question of the causation of consumption affords a salient example of this tendency to draw great conclusions from inadequate premises, and most especially so in its latest phase in the present day, when the specific character of the disease bids fair to be established by science, and the over-practical physician rushes at once to the conclusion that its contagiousness must be taught as a matter of course. Dr. Andrew, in his clear and thoughtful lectures, which appear in abstract in our present issue, has shown in a most masterly manner how such a complicated question as this should be discussed in the dry light of intellect; for, search through his arguments as we will, we can find no trace of a tendency to suppression of fact, or any taint of party strife. He has not attempted to settle, once for all, the question of the ætiology of phthisis; nor, indeed, has he advanced any novel suggestion: but he has done far better, in marshalling before us in a complete form the best accredited facts relating to the occurrence and the history of this disease; and taking both the oldest and the newest knowledge into fair consideration, has endeavoured, with considerable success, to demonstrate their rational connection.

Dr. Andrew's position, with regard to the proved relation between tubercle and the bacillus of Koch, will scarcely now be questioned by any, and though it may be said that more inoculation experiments are still to be desired, it may be admitted with him that the entry of the bacillus from without into the organism is a necessary factor in the production of tuberculosis. "No tubercle without bacillus" may already, indeed, without much fear of contradiction, be assumed as a pathological axiom. But doubtless since this discovery has been made, and the observations repeated by many ardent stainers of microscopical specimens, there has been a great tendency to teach that an ever-virulent germ is the only cause of phthisis, and to ignore, at least by implication, the probably no less important factor of the soil which may be necessary for its life and action. Germs of disease are too readily looked upon as all alike, and even the newest of them are placed in the same category with those whose effects, at least, have been long familiar to us. But Dr. Andrew emphasises very strongly his belief in the existence of the well-known influences of dampness of soil, imperfect ventilation, heredity, exposure to vicissitudes of climate, various occupations, and other factors as, one or more of them, contributing, for the most part necessarily, to the production of phthisical disease. Regarding these as predisposing causes to the affection, on an overwhelming amount of evidence, he freely admits that one and all are inadequate to account completely for its distribution or its anatomical and clinical characters, and welcomes the discovery of the bacillus as supplying a link which may perfect the ætiological chain. This theory seems especially valuable as throwing light on the undoubtedly close clinical relationship that exists, as the lecturer insisted, between scrofulous disease, phthisis, and acute tuberculosis—a relationship which being difficult to explain on the recently fashionable "inflammation" theory of caseous phthisis, was often in consequence denied. We seem, indeed, to have ground for hoping now, that as soon as this bacillus can be said to have fairly won its position, the fight between the "grey" and the "yellow" will no longer rage in tubercular pathology.

Dr. Andrew's teaching that the bacillus of tubercle can probably thrive in certain conditions only, is supported by clinical facts, and is also quite in accord with scientific knowledge of bacteriology. As was pointed out last year in a leading article in this journal, entitled "Bacteria and Disease," there is great reason to believe in a varying degree of specificity in many of these organisms, as illustrated by different forms of the yeast-fungus, and the probable identity, as shown by Buchner, of the so-called Bacillus Anthracis with a harmless form occurring in putrefying vegetation. This would serve to explain the wide-spread immunity from phthisis enjoyed by many who must be frequently inhaling the free organism.

Following on these considerations, Dr. Andrew proceeds to argue, in support of his main thesis, that phthisis is not, properly speaking, contagious. Comparing the disease in many points of importance with ague, he says that specificity does not, by any means, imply contagion; and professing most clearly his belief that phthisis is a specific febrile disease, and is indeed entitled to rank as such apart from the discovery of the bacillus, he goes as far as to say that the facts on which the specific theory is based are opposed to the notion of the contagious character of the affection. He certainly succeeded in showing that, while it is allowed that some specific febrile diseases are directly communicable from the sick to the healthy, some indirectly, and others not at all except by artificial means, there is no reason why phthisis should be placed in the

first of these categories. The lecturer's comments on the reported cases of contagion seem to us especially pertinent, and, with his evidence of the greater probability of local infection in apparent cases of this kind, are worthy of the most careful study.

There is no evidence of any *arrière pensée* or prejudice in these lectures, though Dr. Andrew himself pleads guilty to the possibility of bias from the aggressive position he has chosen with respect to the notion of contagion. On the contrary, the careful statement and arrangement of his facts bear witness to a strictly scientific tone of mind, not yet too common in the medical profession, while his logic, unmixed with controversial sophistry, would do credit to any professor in the University of Oxford, of which Dr. Andrew is so distinguished a graduate.

THE PHARMACOPŒIA AND NEW REMEDIES.

From the recent Report of the Pharmacopœia Committee of the General Medical Council, we gather that no further suggestions are invited towards the completion of the new Pharmacopœia. "All the documents and reports have been placed in the hands of the editors." The Committee feel satisfied that the information, now in their hands, will be sufficient to render the next edition of the *British Pharmacopœia* worthy of the approval of the Council, and of the profession." So ends the report received and printed in the minutes of the meeting of the General Council, on March 27th. The communications from the different medical and pharmaceutical authorities consulted seem to be numerous enough, and even after the "most attentive consideration" given to them in the three or four meetings of the Committee held since May, 1882, must form an embarrassing amount of material to be thrown upon the hands of the editors. But, surely, this function of the Medical Council and of this Special Committee is not performed by merely sending round an appeal, and stopping it when the mass of matter accumulated is likely to become unmanageable? Are the editors to receive no directions as to what shall be put in, and what shall be left out of the Pharmacopœia? The list may well be closed against new claimants for admission to it; the information, gathered from so many quarters, is doubtless ample, and no new suggestions are needed; but, to make the new edition worthy of general acceptance, the Council must decide upon what shall be adopted and what rejected, and the Committee must exercise a continuous vigilance so as to give definite instructions as to what is advisable on fixed and clear principles.

Conspicuous among these should be a firm opposition to any large increase in the number of officinal preparations. The Pharmacopœia of 1867 included one hundred and fifteen articles not contained in that of 1864. Ten of these, too hastily rejected from the former edition, were simply reinstated; these are the acetum and oxymel of squills, sulphate of atropia, the compound infusion of gentian and of orange, the solutions of the acetate and citrate of ammonia, the brandy and egg mixture, and the *spiritus ammoniæ fœtidus*. Ten useful additions were gained in carbolic acid, bromide of ammonium, carbonate and ammonio-citrate of bismuth, oxalate of cerium, the liniment of iodide of potassium with soap, an acid solution of arsenic, calabar bean, cacao butter, and a syrup of rhubarb. Among the useless additions may be mentioned canella, buckthorn, lettuce, pyrethrum, and sumbul; an iron mixture, five extracts, three or four pills, six tinctures, and all the four preparations of orange wine. The Medical Council is authorised by Act of Parliament to publish a book "containing a list of medicines and compounds, and the manner of preparing them;" without some care against the multiplication of new forms this book will be so encumbered that one or several smaller publications will again become necessary for the guidance of the medical practitioner in prescribing, and for the use of the student in acquiring a knowledge of the remedial agents in use. The preparation of orange wine may again be left to our grandmothers' *recipes*, and by the end of the century we may be much as at its commencement perhaps, with some safe and many very unsafe acquirements. The traditionary hold of harmless things is of slow growth and slow decay, and we may be content that it is so. Of more active novelties the danger is sooner over; but as one disappears others push forward and raise commotion enough to attract attention. This is specially true of new medicines. If we have passed by digitalin we have to meet nitro-glycerine, hyoscyamin, gelseminum, apomorphia, and perhaps monobromide of camphor. On looking to what has recently been said of these things, we are not surprised to see epilepsy appealed to, as it has been time out of mind in support of most doubtful remedies; but in these days of a more exact pathology to find paralysis agitans curable by any of them is amazing. Yet this has been claimed for hyoscyamin. Again, an atom of bromine replaces one of hydrogen in camphor, the compound is said to depress the circulation, respiration, and temperature, "large doses cause clonic convulsions and muscular trembling," and then it is recommended in five grain doses in whooping-cough of children, for teething and hysterical wakefulness. The nausea and prostration, resulting from small doses of apomorphia, we regret to see put in action against hysterical disturbance; and, after great advance for many years in the care of the insane, we have come now to hear of "chemical restraints" in drugs, and an extended place asked for them in the Pharmacopœia. We conclude for the present with one word as to doses. Under this head the quantities stated in the preface are to represent average doses, in ordinary cases, for adults; this is to be considered in any proposed lowering of the dose. But if we are to order one grain of the hypophosphites, then only a mere fraction of a grain would be given to children, from which we should obtain but slight results in the cases where they otherwise would be most useful. On the other hand, too large a dose of the extracts of aloes is given in the present Pharmocopœia. In the nine formulæ for pills containing aloes, from one to two grains only of aloes is contained in each pill; now the dose of the extract is given as from two to six grains, yet the extract is nearly, and that of Socotrine aloes quite, twice the strength of the aloes used in the pills.

HOSPITAL OUT-PATIENT REFORM.

II.—From a Professional Point of View.

On a former occasion we discussed the question of Hospital Out-patient Reform from a public point of view, denouncing as a principle the wholesale distribution of gratuitous medical charity, suggesting the propriety of encouraging all classes of the community to contribute, in proportion to their means, towards the hygienic as well as to the other necessities of life, and maintaining that this could be successfully carried out in practice to the advantage and profit of all concerned. There is another aspect of the subject which, from the professional man, merits attention, namely, the present state of hospital management from the physician's point of view. We shall not attempt to enter into all the topics which might be discussed under this heading, and among others, the general principle, that it is an injustice to require the members of any vocation to perform arduous and responsible labour without remuneration, and thereby inflict an injury, not only on themselves but upon their brethren, who have to live by the exercise of their calling. We shall confine our observations to the business relations which exist between the medical staff of a hospital, and the out-door department to which it is attached.

The duties of medical officers to our public institutions are performed gratuitously, and without question of direct pecuniary return. On the impulse of pure philanthropy, which prompts this action, it is not proposed to dilate, further than to remark that if the members of the medical profession, as men, cannot claim more than their share of instinctive benevolence, when circumstances have required it, they have not been found behind-hand in disinterested services to their fellow-creatures. It must, however, be granted that the eager desire to obtain hospital appointments, displayed by youthful aspirants to distinction, cannot be attributed entirely to this motive. The class of men who seek such posts are, as a rule, those actuated by ambitious aims in life, who desire to raise themselves to the higher grades of their calling, and who, by a more elaborate education and extended experience, hope to fit themselves to occupy that position unattainable by the ordinary ranks of their profession. This, they believe, will be mainly realised by their association with a public institution to which, for the material advantages they expect to receive, they are willing, in return, to give their gratuitous professional services. At the present time a good hospital appointment is sought for by the young physician or surgeon for the following reasons:—First, It is supposed that the prestige of belonging to the staff of such an institution, and the association with distinguished colleagues is in itself an advantage, that it stamps a man as following an honourable path in his profession, and is, therefore, likely to make him favourably known to his fellow-workers and the public. Secondly, It probably connects him with a medical school, and thereby gives him the opportunity of becoming a teacher, and thus distinguishing himself amongst the younger members of his calling. Thirdly, it provides him with clinical material, through which he can not only perfect himself in the art of his profession, but by the accumulation of experience and observation thus obtained, can further the science of medicine for his own as well as for the general interest.

We have, however, seriously to consider whether, under existing circumstances, this bargain between the medical officer and the public institution is impartially carried out on both sides. In the case of the full physician it may be said that, on the whole, he has no serious ground of complaint. He possesses a distinguishing title, his position is independent, and his duties much as he chooses to make them; the material at his disposal supplies all his requirements, and is practically under his own control and management. In return for these advantages he willingly gives his professional services to the inmates of his wards. The position of the so-called assistant physician is, however, very different, and urgently necessitates reform. Every year, owing to a variety of circumstances, his office becomes more laborious and irksome, and as the demands on his time and attention increase, the corresponding advantages he is supposed to receive in return, diminish. The very title he holds, and which he may retain till advanced in years, is a misnomer, as he assists no one, and his duties are as responsible as those of his nominal seniors. In modern times, such are the number of smaller hospitals which have sprung up in all directions, that the merit of being a hospital physician has become greatly diluted, and almost any one can now obtain an appointment of some kind which, with the public, will equally entitle him to this distinction. The prestige, therefore, of such a position is materially impaired; association with even the most prominent hospitals, brings little direct benefit to their junior staffs, and association with the smaller ones, none at all. Such consideration would be of less moment if the most important object at which the young physician aims was fulfilled, namely, the opportunity for obtaining clinical material for teaching and scientific observation. The present state of management in out-door departments is totally subversive of any such anticipations. At most of the London hospitals, the doors are thrown open to the public without limit or selection of any kind, and, as a consequence, multitudes of persons present themselves for treatment, to all of whom the assistant staff is expected to direct attention. The total absence of any form of restriction encourages flocks of patients, especially women and children, suffering from the most trivial or imaginary complaints, to crowd the waiting rooms, which thus become the lounging places for all the idle gossips of the neighbourhood who are gratuitously entertained at the public expense, and enabled to foster and satisfy their ignorant cravings for "doctor's stuff." Not to speak of the unnecessary physical and mental labour thus entailed upon the doctor, is it not perfectly monstrous, that the physician, a man theoretically of superior attainments and experience, should have to expend his time and energies in wading through this mass of undigested and useless material? He thereby performs the very lowest class of general practitioner's work, and only differs from him in the fact that he is not paid for his services. As the report of 1870 on

Hospital Reform, already referred to, justly remarks, "An inordinate number of trivial cases wastes the time of the consultant, wearies the attention of the student, and fosters a habit of hasty diagnosis and careless observation, which tend to erroneous and ineffective treatment." This herding of people, clamouring for attention, further prevents the physician from giving to those seriously ill that care and thought which their cases merit, it is totally inimical to clinical instruction, and absolutely subversive of all scientific observation. "In fact, out-patient work, as generally conducted, neither conduces to the sound advancement of professional knowledge, nor to the advantage either of the student or the public."

The moral of these general reflections is, that while the assistant physicians at our hospitals fully carry out their side of the bargain, by the expenditure of their time, labour, and skill, in behalf of the sick poor, they are not rewarded by an equivalent return for their services. Not only do they receive no pay or any direct material advantage, but even the *quid pro quo* for which they may legitimately look in the shape of clinical material, with opportunities of utilising it, is in great part denied them.

The reformation of this unfortunate situation is one of considerable difficulty and delicacy, as when attempts are made in that direction by medical men, they are confronted with the retort that their motives are those of personal interest, and that if they are not satisfied, they can resign the position they hold. The adoption of this procedure would in no way remedy existing evils as if the posts were vacant one day, they would doubtless be refilled the next. The public, under these circumstances, will never entertain the idea of remunerating hospital staffs, or of mitigating their labours, so long as the appointments they offer are so eagerly longed for, and so readily accepted on the present terms. Any hopes of amelioration in the future must, therefore, mainly depend upon the action of the profession itself and were sufficient firmness and unanimity brought to bear on the question, success would inevitably follow. Without, however, anticipating unnecessary difficulties, we trust that the time soon will come when, by the united efforts of lay and medical men, the present position of out-door patient relief will be placed on a better footing, so that it may work to the satisfaction of all concerned. Whether this is to be effected by an extension of the provident system, by the institution of small payments, or by other means, remains yet to be practically demonstrated.

CLINICAL PAPERS.

IX.—Bone-setting.

The bone-setter is still able to ply his trade successfully! This, we think, no one who has any surgical experience can deny. It behoves us then to see in what measure we fail to meet the requirements of our patients. For failure there must be, if good is done that we have been unable to effect, and common justice demands that we should acknowledge such to be the case. We pride ourselves on the fact, patent to our anatomical knowledge, that the bone-setter's diagnosis is hopelessly wrong. And spending our wrath on this proof of his absolute ignorance of the structure of the particular joint in question, we forget to enquire wherein he has succeeded in securing the patient's approval. That the joint could not have been dislocated we are absolutely sure, and an examination subsequent to the supposed reduction only confirms our original opinion. The same fracture or other injury exists, just as we left it. We confidently reiterate to our inward satisfaction, "No, it is as I stated to you at first, a fracture into the elbow-joint." The natural answer which we might expect, did we not feel injured at the trick which it is hopeless for us to attempt to explain, meets us at once—"Well, I don't know whether it was '*out*' or not, but one thing I am sure of, and that is, that I could not get my hand to my mouth before, and now I can." Making every allowance for that large contingent of the public that prefer to place themselves in the hands of an irregular practitioner — a term which appears now to be the euphonious title of a quack—there still remain a goodly number who follow the orthodox treatment to the end, and yet derive considerable benefit from the treatment subsequently employed by the bone-setter.

Then, again, there are those intermediate cases in which, not satisfied with the progress they have made, patients run off to the bone-setter before their treatment is finished, and there undergo the very movements which were about to be employed by their regular doctor. Such cases are the most trying of all to the painstaking surgeon. For a new version (particularly an unauthorised one) of the nature of the injury he has received is always pleasing to a mind that knows nothing of the possibilities; and the absolute and sudden change which would have followed in the ordinary course of treatment under the regular practitioner, if he had waited a little longer, appears miraculous in the hands of this new prophet, and confirms at once the wavering mind, which before was only half convinced of the truth of the new diagnosis. To the patient it matters little what was the exact condition of affairs. "Before I was lame, now I can walk." Therefore the man who made him walk must be right. Let us then consider the nature of these cases. They may, we think, be roughly divided into two large classes. Firstly, those that are at once and completely cured of their disability, and require only free use of the limb to get back all its functions. The simplest illustration of such a case is where, after dislocation of the shoulder and its reduction, the arm has been kept too long at rest, and adhesions have formed between the folds of the synovial membrane. If seen sufficiently early, one vigorous and forcible movement of the arm is sufficient to cure the patient, provided he will consent to exercise it regularly himself after this has been done. The same occurs after fracture of a long bone. The neighbouring joints may become stiff, and require these violent movements to set them free. Secondly, there are the more difficult and interesting cases where joints are more or less hopelessly fixed. And here it is where the good bone-setter shows so much *savoir faire*. He differs at once from the diagnosis of the original practitioner, and if he thinks a favourable result likely to follow from rough manipulation, he then and there

gives a sudden and violent movement from which all subsequent improvement is supposed to take its origin. He states that he has reduced a dislocation, and he is believed, because so much improvement follows the manipulation. We may safely state that if everything had been done which surgical art can contrive for the benefit of the patient, such reduction as he calls it could not have taken place. The fact being that if the patient obtains an atom more movement after his visit to the bone-setter he naturally, in his ignorance, believes what he is told—that reduction of an unrecognised dislocation has been accomplished. There is no doubt at all that many of these cases fall into the hands of the irregular practitioner through the apathy of the ordinary medical attendant. The latter has done a great deal for his patient, has guided him through a troublesome period of illness, after accident, to convalescence, and thinks naturally that the man ought to be thankful he is not worse. The amount of discomfort which the patient suffers he treats lightly, for to him it appears insignificant in comparison to his previous condition. If the practitioner would only follow his case up to the very last, and persevere by passive movement, friction, shampooing, &c., we should hear less of these marvellous cures. The bone-setter has merely done what the medical attendant ought to have recognised was necessary or advisable. He has liberated the joints, stiff from their long confinement in splints, by free passive movement. Or he has given an anæsthetic, and forcibly moved a seriously damaged joint—one in which it was rightly thought advisable at the time of the accident to procure anchylosis on account of the severity of the inflammation. But there are many cases in which the inflammation having subsided, a little movement may be re-established. Now, how does the bone-setter recognise the condition in which he may safely apply his method of treatment. Of course, he occasionally makes mistakes, and employs passive movement, when continued rest ought to be enjoined, and in this he more frequently errs than his more scientific brethren. But, speaking generally, he judges rightly that, if the joint is cold to the touch and the skin in a peculiar waxy inactive condition, the forcible movement may be with safety employed.

There are other cases in which great benefit is undoubtedly obtained by free and forcible movement. Take, for instance, an old and chronic case of sciatica, which has of late years been treated by nerve stretching. The explanation of the improvement that follows this treatment lies in the freedom given to the nerve trunk in its bed by the forcible stretching. The inflammatory infiltration in the sheath of the sciatic nerve has led to an unnatural rigidity, causing constant pain and annoyance to the sufferer, and this the operation overcomes. By forcibly flexing the thigh on the abdomen, the same stretching may be accomplished, as in the operation, particularly if an anæsthetic be given. Such a simple expedient ought not to be left to be used by the unqualified ranks of our profession. Instances without number could be given, did space and time permit, in which inflammation, long since subsided, had left its mark in the form of impaired movement in a joint which has not itself been involved. Not one disease, but many, may bring this sequel in their train. And yet how frequently such cases, which can be so easily cured of their disability, fall to the lot of the bone-setter—a man who simply, be the complaint what it may, puts every joint of the limb through all its varied movements. If there be the slightest imperfection in one direction he overcomes it by a wrench, and the complaint, odd though it may seem, frequently ceases.

The object, then, which we should have in view, is to more carefully guard our patients to the end. We are certainly less likely to do the injury which occasionally falls to the lot of those who visit the irregular practitioner; and if we systematically look for those slight impairments in function, and work away at passive movement, with and without an anæsthetic, we shall be less liable to be met with the humiliating reply, when our patient has "sought further advice," "Well I could not do this before." K.

HEITZMANN'S HISTOLOGY.[1]

[First Article.]

In his preface, the author says:—"In presenting this book, the result of ten years' intense labour, to the public, I am aware that not all the facts and conclusions here laid down will meet the immediate approval of professional microscopists." Dr. Heitzmann has for many years, in scattered communications, been an opponent of the cellular pathology, which Prof. Virchow inaugurated. His writings are well known on the Continent, and though, perhaps, less familiar here, some of his many histological observations find mention in English books. The work of anyone who earnestly devotes ten years to laborious research is certainly worthy of most attentive consideration, and we cordially welcome the present volume as the clear statement of the views of one who is entitled to respect, even though we may not be inclined to accept all his conclusions. Dr. Heitzmann has established a School of Histology in New York, to which he has attracted a large number of pupils; the individual researches of many of these are embodied in the present work, and some of them are of extreme interest.

The first chapter contains a description of histological methods, but with the second chapter Dr. Heitzmann plunges at once into his subject. This chapter is entitled "General Properties of Living Matter," and was first published in 1877. In it the author defines the smallest molecules of living matter—"plastitudes," each composed of at least five atoms, C.H.O.N.S., endowed with a peculiar motion "of relatively short duration" or "life," a change of which motion is disease; a cessation, death. The properties of living matter are motion and reproduction. This motion is not that of which heat, light, and electricity are examples, but a certain kind of motion dependent on the irritability and contractility of living matter enabling it to work "at least to a certain limited degree, against the law of gravity." "It is controlled by complicated laws which we term the 'will' and the 'spontaneity' of living matter." Motion is either "amœboid," changes of shape, or "locomotion," changes of place, both peculiar

[1] "Microscopical Morphology of the Animal Body in Health and Disease." By C. Heitzmann, M.D. Trubner and Co.

to the structure of living matter. Living matter exclusively possesses the power of "growth" and "generation." This latter is either by "division," "gemmation," or "endogenous formation." The offspring resembles the parent, because "the germ of every living individual contains plastitudes of all its ancestors; so that these are bodily regenerated in their offspring, simply because bodily particles are preserved directly from generation to generation." This is the theory originated by Elsberg, which the author prefers to Hering's assumption of "unconscious memory," and Häckel's "perigenesis," or Darwin's assumption of the accumulation of sexual granules formed of granules of the parent. According to the author it is the only one which explains how ancestral peculiarities reappear in the second or third generation. A brief *resumé* of the cell theory from the time of Dujardin in 1835, up to 1872, when Max Schultze's definition of a cell as a lump of structureless protoplasm was accepted, concludes this chapter.

The third chapter discusses "The Arrangement of Living Matter in Protoplasm," and has previously appeared in German in 1873. In it the author demonstrates the reticular nature of protoplasm; the nucleus, nucleolus, granules and connecting reticulum, being the living contractile matter, suspended in a non-living, non-contractile fluid. An investing membrane does not exist; vacuoles are accumulations of fluid surrounded by a wall. The nucleus moves passively. These views have been accepted unreservedly by histologists. Two original papers close this chapter. One on "The Structure of the Blood Corpuscles of the Oyster," by H. M. Harlbutt, and the other on "The Structure and Growth of some Forms of Mildew," by Wm. Hassloch; both confirming the views of Heitzmann on the fibrillar structure of protoplasm.

The next chapter, which deals with "The Phases of Development of Living Matter," was also published in German in 1873. In it the author showed that what at that time were considered to be phases in the life of the protoplasm, must now be "taken as different phases in the development of living matter, one of which is its reticular arrangement in protoplasm." Observations on the amœba, cartilage, and bone corpuscles, and the blood of the cray-fish, show that *protoplasm exhibits differences according to its age.* The youngest particles are homogeneous lumps, without any reticulum. The first differentiation is an accumulation of liquid in vacuoles; and owing to this accumulation in several closed cavities, "the living matter assumes the shape of a frame-work. The points of intersection of the frame becoming granules, by a rupture of many of the walls of the vacuoles a network is established, which represents a later phase of development of protoplasm." The more coarse and closely set the reticulum, the younger the living matter. The central portion remains homogeneous, next this becomes reticular, and a nucleus is developed, having a small compact centre, the nucleolus. This is a complete "cell." It will be seen that the author adopts a different view of the nature of a "cell" from that which Schwann, Brücke, Max Schultze, and others adopted. The term "cell" should, according to Heitzmann, be abandoned, since this "is composed of innumerable particles of living matter, every one of which is endowed with properties formerly attributed to the cell organism." The original granule is morphologically the simplest appearance. This, by growth and splitting, "results in the appearance of a reticular lump, a rather complicated organism, hitherto called 'protoplasm.'" Are the properties usually ascribed to protoplasm applicable to tissues? There is no such thing as an isolated individual cell in the tissues, since all cells are joined, and the body is "*in toto* an individual." There is no need to claim that it is protoplasm which builds up the animal body, since this same protoplasm is only an advanced stage of development of living matter. The living matter of plants is not materially different, but all cells are uninterruptedly connected by offshoots piercing the cellulose walls. The organism is not a community of "cells," as Virchow formulated, but the body is composed of single parts, materially connected together, and no part is at all autonomous, but all combine to make one individual.

The fifth chapter contains a memoir by Louis Elsberg, on "The Structure of Coloured Corpuscles," which are claimed to be simply detached particles of living matter, reticulated, and possessing no investing membrane, differing from white only by the presence of hæmoglobin. A laboriously compiled historical sketch of the subject is appended. An original memoir by A. W. Johnstone finds a place here, in which it is shown that both red and white corpuscles are developed from adenoid tissue.

The sixth chapter deals with "Tissues in General." Here they are defined as "complex formations of living matter, in a network arrangement." Heitzmann concludes, from laborious investigation, that in no tissue whatever do there exist "cells" as isolated individuals. The whole body is one protoplasmic mass, "in which are embedded a relatively small number of isolated protoplasmic corpuscles (migrating, colourless, and coloured blood corpuscles), and various other non-living substances (glue yielding and mucous substances, fat, pigment granules, &c.)." The use of the term "cell" is objectionable, tending to the erroneous idea, that tissue elements are disconnected, whereas they are continuous. This portion of the work is extremely original, and will repay attentive perusal. Many laborious researches are described, and the author's easy style carries conviction with it. Though the ideas here expressed may not be quite new—they are the author's own—and we are glad to see them published in a collected and continuous form.

The Evolution of Morbid Germs: a Contribution to Transcendental Pathology; by KENNETH W. MILLICAN, B.A. Cantab., M.R.C.S. London: H. K. Lewis, 1883, pp. 107.—It might appear hypercritical to take exception to the title of this volume, but we gather that the position for which the author really contends, is that successive generations of an originally innocent—or, at least, indifferent—*Bacterium* (using this word in its most general sense), acquire morbific properties by virtue of the "struggle for existence" which their residence and propagation within the body of their 'host' implies: so that, in short, a germ—itself devoid of toxic power—introduced into the human body, may, under favourable circumstances, become, in the course of a few weeks, the ancestor of descendants whose operations are displayed in a typical attack of small pox or diphtheria for

example; the particular form of disease being, apparently, determined by the conditions under which the original germ and its offspring find themselves. The hypothesis is thus used to explain the apparent *de novo* origin of already known maladies, and the development of new and aberrant forms; their acquisition of specific characters; their variability in transmission; and the occurrence of 'hybrid' or 'nondescript' cases: while immunity is "supposed to consist in an alteration in the character of the ultimate tissue cells consequent on their supremacy in the struggle with the bacterian invaders;" and indefinite incubation "merely points to variations in the intensity and protractedness of the struggle."

These views are not altogether peculiar to Mr. Millican; at all events, similar suggestions have been already put forward, as he admits, by Prof. Simon, Dr. Sanson, Dr. E. T. Wilson, and others; but, while they are undoubtedly worthy of consideration, they will require, before they can be accepted by the scientifically cautious investigator, evidence more definite and conclusive, as well as more abundant, than that adduced in the work before us. Mr. Millican appears to have been sometimes too ready to accept a single symptom as evidencing the existence of the specific disease in the course of which it does usually appear: and he ignores that mimetic power, for the explanation of which it is by no means requisite to suppose the co-existence of two or more diseases. In the case which he quotes first, and as the one which suggested this enquiry to him—a supposed 'concurrence of typhus and enteric fevers with diphtheria and small pox'—it is remarkable that not only did the patient recover, and that there was, apparently, no albuminuria or subsequent paralysis, but that 'no form of disease was transmitted from this patient to any inmates of the house.' Moreover, having regard to the insanitary conditions discovered by the Medical Officer of Health, and to the patient's occupation—working on the roads—and his admitted 'habit of drinking water out of any of the wayside pools,' is it necessary to view his case as one of "the apparent *de novo* origin of a disease resembling . . . . four commonly supposed distinct 'specific' diseases?" The author seems to ignore the fact that the process of *degradation*, which would itself suffice to explain many apparently anomalous cases of the action of 'disease-germs,' is often equally important with that of development or acquisition of powers in the progress of evolution. In "my own case of evolution of scarlet fever" (p. 81), certain (ancestrally) 'indifferent germs' are considered to have 'acquired specific infectiveness' by the transmission of successive generations through three other children and the mother, who had previously exhibited different combinations of sore throat and diarrhœa with more or less rash and desquamation; the whole period occupied in the process of evolution being some 26 days, equivalent, we are told, to about 1,700 generations of bacteria. The child last attacked seems to have had typical scarlet fever; yet applying this hypothesis to this and similar cases, and having regard to the vast inherent probabilities of variation in development under the circumstances of such *de novo* origin, we should be rather surprised than otherwise to find, as the result of a fortnight's evolution, a disease presenting exactly all the typical peculiarities which are pathognomonic of that well recognised form of scarlatina, whose 'specificity' has (on the same theory) been nurtured, fixed, and strengthened by hereditary transmission through billions upon billions of bacteria generations and several hundreds of patients.

It is almost needless to remark that the author refers all and every disease, or 'departure from the normal line of health,' to bacterial machinations: an hypothesis which, however plausible, has as yet been demonstrated in only two or three instances at most. It is surely more bold than scientific to accept as solid ground, the causative connection between the occurrence of organic forms in the tissues and the existence of "specific" disease, because "this has been abundantly shown in the case of *Bacillus Anthracis* . . . . and *Bacillus Malariæ*," and "micro-organisms have now been more or less definitely connected with relapsing fever, anthrax, elephantiasis . . . . . &c., and other diseases."

On page 91 Mr. Millican quotes, as a footnote, but in apparent continuity with and corroborative of his argument, part of an article on bacteria and disease which appeared in this Journal on November 8, 1883. Taken, however, in conjunction with its context in the original article—in which the writer states, "It must not be supposed that we intend in the above remarks to suggest that one and the same species of harmless bacteria can assume a number of pathogenic phases according to circumstances: that would be carrying hypothesis beyond the limitations accorded by known facts"—it is plain that such a special construction and application of the quotation is scarcely warranted.

There are some theories which, like the theory of gravitation in astronomy and the moleculo-atomic theory in modern chemistry, may be said to depend for proof entirely on the results which their application has enabled scientific workers to achieve. The theory now before us is, to say the least, a plausible one; but it will be more likely to secure general acceptance as a working hypothesis when it is advanced with more deliberation and upon a less dubious basis.

The book is nicely got up, and the interspersion of the text with occasional words and sentences printed in heavy type, though it gives a sensational aspect to the page, and is somewhat trying to the eye, at least possesses the advantage of quickly directing the reader's attention to those points which the author deems of importance. Errors of spelling and of construction—doubtless due to hasty revision—occur here and there; and Mr. Millican appears to be unjust as well as obscure when he states (p. 3) that it was owing to "that very antagonism of authorities of repute, greatly aided by the kindly encouragement and attention of many well qualified to judge on the merits of the question," that he was emboldened to publish his book.

Typhoid Fever in Victoria; by JAMES W. BARRETT, M.B., Ch.B. Melb., Resident Medical Officer to the Melbourne Hospital. Section. I. Melbourne: George Robertson, 1883, pp. 44.—The courtesy of a fair hearing is by long-established custom conceded to the maiden speech of a new member, and in like manner the maiden efforts of a new writer may fairly claim the courtesy of careful perusal and generous criticism. Not only as the first literary venture of its author, but also as the first production of a medical graduate of Melbourne University, the work before us deserves attention. The subject is one with which the author, from his official position, is peculiarly well qualified to deal. Typhoid fever appears to be almost a scourge in Victoria, especially in the smaller settlements, and in dealing with it, as he proposes to do, in a large work of which the present is only the first section, Dr. Barrett will doubtless "do the State some service." In the commencement of the present section, the author plunges *in medias res* with the proposition that all the forms of continued fever which are prevalent in Victoria are only varieties of typhoid. The simple febricula, or fever, in which no characteristic symptoms are present beyond those of pyrexia, has hitherto been looked upon as a distinct disease. A series of facts and arguments are here adduced to prove the incorrectness of this view. The equal prevalence of the two diseases in particular years and months, the probability of their both being due to a single poison, their equal predisposition to attack females more frequently than males, and their clinical similarity, are severally discussed and supported by strong statistical evidence. A few cases, with temperature charts, are recorded, to emphasise the probability that the two diseases may arise from a common source, and that a mild typhoid may be clincally indistinguishable from a febricula. It will be observed, however, that no definite mention is made of typhus fever, as distinct from typhoid, or of relapsing fever. The sanitary conditions which the author describes in the latter portion of his paper, as existing in so many country districts, are precisely those which are usually associated with the prevalence of typhus, but, if negative evidence may be regarded, we must assume that the latter is unknown in Victoria. Whilst agreeing with the author in the correctness of the deductions which he has drawn from the facts that he brings before us, we must still express a decided feeling that the evidence derived from the clinical history of a few typical cases is hardly sufficient to warrant our acceptance

of so sweeping a proposition as that of the identity of all the forms of continued fever in Victoria. The difficulty of collecting trustworthy information is doubtless far greater in the country districts in Australia than in Europe, and time will enable Dr. Barrett to widen his range of observation as his work progresses.

The greater portion of the present section deals with the ætiology of typhoid fever in Victoria. The following points are each in turn discussed, and statistical tables and charts are appended:—The relation of other diarrhœal affections to typhoid; the seasonal prevalence of the disease; its greater frequency among females; the commonest age for attack; its mortality, causation, and prevention. In Victoria the "typhoid season" lasts from January to May (*i.e.*, during the Australian autumn), and from a study of meteorological records, the author finds the only climatic condition which appears to influence its intensity is the amount of rainfall. The fever is mild in seasons of heavy rains, and more severe in the dry seasons. The mortality, both in Melbourne and in the country districts, appears to be high. In his chapters on the causation and prevention of typhoid, the author writes directly for the information and instruction of his fellow Victorians, and hence adopts a style which will doubtless be well appreciated by those to whom his words are addressed. The facts and instances which he cites are most suggestive and interesting in themselves, although wanting in that absolute accuracy of detail which is essential to scientific investigations at the present time. The earlier chapters of this very concise and instructive paper are written in clear, terse style; indeed, the author almost errs on the side of economy of words; but as they form the first step in a work which we hope to see expanding into a treatise worthy of his university, we may congratulate him on the production of so thoroughly genuine a beginning.

Plant Analysis — Qualitative and Quantitative; by Dr. DRAGENDORFF. Translated by H. G. GREENISH, F.I.C. London: Baillière, Tindall and Cox, 1884.—Scientific men owe a large debt of gratitude to Mr. Greenish for this work, which could hardly have been satisfactorily performed but by one who, like the translator himself, had been a pupil in the author's laboratory. The thoroughness with which he has performed his task may be gathered from the fact that the index is more copious than in the original, having been compiled from the English text. The author lays especial stress in his introduction upon the nature of the solvents employed in extracting the various constituents of plants, the object in view being to employ the simplest solvents possible, so as to avoid any violent action upon the constituent to be dissolved, and to apply the various solvents in such order that the constituents may be *separated* from one another as far as possible by their means. One of the solvents employed and recommended by Professor Dragendorff is "Petroleum Spirit." Now, as this reagent is undoubtedly a good solvent for fatty matters, and is not at present largely employed in this country, it is advisable that it should have a fair trial. It is directed on page 8, that the petroleum spirit should contain no compound boiling above 45° Centigrade. Now the petroleum spirit of the oil-shops contains little of any compound boiling below 50° C., but the chemical manufacturers sell a liquid under the name of "*Petroleum Ether*," of which one-half by volume boils at temperatures below 50° C., which is accordingly available for the purposes of plant analysis.

The first part of the work consists of directions for the complete analysis of a plant by employing the various solvents, viz. petroleum spirit, ether, absolute alcohol, water, dilute soda solution, and dilute hydrochloric acid, in the order indicated, each solvent separating a certain class of compounds. Having regard to the instability of many of the constituents of plants, the author directs that *heat* should not be applied in most cases, in order to accelerate solution. Accordingly we find it commonly stated that several days are to be allowed for the digestion of the plant with a solvent at the ordinary temperature in order to ensure complete extraction, a sacrifice of time which is necessary for the ensurance of scientific accuracy, but which would doubtless be in many cases inconvenient. Those analysts, however, who desire to effect a more rapid examination of a plant for some particular ingredient whose presence they suspect, or whose quantity they wish to estimate, will find their requirements met in the second part of the work, which describes "Special Methods" for the extraction of special constituents, &c.

Valuable tables are distributed through the work, *e.g.*, the behaviour of Vegetable Oils to Reagents, on p. 103, and of Vegetable Alkaloids to Reagents, on pp. 179, 180; and at the close of the work are two particularly useful ones, viz., an alphabetical list of plant constituents, with their formulæ and per-centage compositions attached, and a list of the more important constituents of plants arranged in order according to the percentage of carbon they contain, oxalic acid heading tht list with 26·66 per cent. by weight of carbon, and styrol closing it with 92·31 per cent. of that element. The English chemist and pharmacist cannot fail to benefit from the use of this work, and we thank Mr. Greenish for placing it within their reach.

ABSTRACTS AND EXTRACTS.

OBSTETRICS.

THE VOMITING OF PREGNANCY.

A RECENT number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a long and elaborate paper on this symptom, by Dr. M. Horwitz, of St. Petersburg. The gastric disturbances of pregnancy differ widely in degree. The author, in his paper, especially deals with those cases in which the vomiting is bad enough to impair health, and is not checked by any of the ordinary methods of treatment. For such cases he thinks a special designation is required, and he proposes the term "*vomitus gravidarum perniciosus*." This he would define as vomiting which from the beginning affects the general health of the patient, and which gradually increases till it reaches a stage at which food of all kinds, liquid as well as solid, is rejected by the stomach. It is necessary, for the proper understanding of such cases, to compare them with the slighter forms, and this Dr. Horwitz next proceeds to do. It is seldom that pregnancy exists without some vomiting. In his experience Dr. Horwitz has not met with more than ten cases in which it was absent. It is not possible to lay down any general law as to the precise period of gestation at which it begins. On this point the statements of women of the upper classes, who have more leisure to observe their symptoms, are, our author thinks, more to be trusted than those derived from the lower orders. Dr. Horwitz, therefore, adduces figures from his private practice to show the period at which the vomiting of pregnancy first commenced. Of 186 cases, it began between the fifth and sixth week in 16 cases; the sixth and eighth in 38, the eighth and tenth in 43, the tenth and eleventh in 60, the eleventh and twelfth in 22; in the seventh month in two cases; near the end and very slightly in five cases. He has not been able to find in literature any precise data from which to form an opinion upon the point, and hence the compilation and publication of the table we have quoted. It is seldom that the vomiting begins suddenly; nausea and other symptoms of gastric disturbance generally precede it. These, in the majority of cases, begin in about the fourth week after impregnation, and gradually increase in severity until regular vomiting sets in about the tenth week. The longer the preliminary nausea lasts, the shorter is likely to be the duration of the vomiting. The vomiting of pregnancy differs from that due to disease of the stomach in that it is not preceded by pain, nor immediately by nausea, and that the vomited matter does not contain undigested food, but consists only of mucus, which is occasionally tinged with bile. The foregoing remarks apply to the ordinary slight vomiting which occurs in the majority of pregnancies. We now come to the more distressing cases in which treatment is required. The pernicious vomiting, to use the name which our author

gives it, may be divided into two stages, or the cases of it into two classes. In the first, the preliminary nausea is of short duration; the vomiting quickly comes on, and progressively increases in severity, but is not very grievous, because there are considerable intervals between the attacks and it does not disturb the patient at night, and the appetite, although diminished, is not quite absent. In this stage the malady cannot be considered dangerous, although it is troublesome. Dr. Horwitz has observed a symptom present in this stage which has as yet not been described, viz., increased sensitiveness of the sense of smell ("hyperosmia"). The patient complains of a disagreeable odour, which she may attribute to something in her surroundings or to the emanations from her own body, and which provokes nausea. It is very troublesome, cannot be removed by treatment, but fortunately is only periodic in its presence, and does not remain long. Dr. Horwitz considers it an important symptom, from the point of view of prognosis. In the second stage, the symptoms become serious. The attacks of vomiting become more frequent, till it at length becomes almost incessant. The straining is excessive and exhausts the patient. Neither food nor drink can be retained, and the vomiting prevents the patient from getting rest at night. The vomited matters begin to now and again contain blood. The tongue becomes red, the gums dark; the urine becomes scanty, and often albuminous. Dr. Horwitz has noticed a relation between the diminution in the quantity of urine excreted, and the severity of the vomiting. It is commonly stated that in these severe cases a febrile condition comes on. This Dr. Horwitz has not been able to confirm. He doubts its accuracy the more, because those authors who make it do not quote thermometric observations in support of their view. In the first stage of the affection the temperature is normal, and in the second stage only so slightly and irregularly raised that no definite febrile type can be described, and often it is subnormal. Where the temperature is high, Dr. Horwitz suspects the presence of some undetected complication. The pulse becomes rapid, small, compressible, and easily accelerated. The patient rapidly wastes and loses strength, but the cerebral functions remain unaffected, except that during the two or three days preceding death there may be transient delirium. Studying these bad cases still more closely, Dr. Horwitz finds that their progress may be further subdivided into three stages. In the first of these there is evident wasting, urgent thirst, loathing of food, although often the patient will crave for, take, and retain aliments of the least digestible kind, while foods apparently more suitable will be at once rejected. There is epigastric pain and tenderness. Sleep is prevented by the vomiting. From this condition it is possible that the patient may recover. In the second stage the symptoms just described are present in greater intensity. Slight elevation of temperature towards evening sets in, and the pulse rises to 120° or thereabouts. The breath becomes fœtid, the tongue dry and dark, the buccal mucous membrane sore. The epigastric pain is continuous. The patient lies in bed with her knees drawn up, apathetic, showing no interest in anything about her. In the third stage sensory disturbances, hallucinations, delirium, faintings, come on. The pulse is scarcely perceptible, hiccough may appear, and finally a comatose condition ends the patient's sufferings. These symptoms are those simply of death from starvation. Dr. Horwitz compares them with those observed in dogs experimentally killed by starvation, and shows that the essential phenomena are identical in their course and nature. Having thus described the disease, our author next considers its ætiology and pathogenesis, questions concerning which, as he remarks, many and widely differing opinions have been held. He believes that vomiting of pregnancy of the severest kind is met with more among women of the upper classes than among those of the lower, and that it occurs with different frequency in different races, being rare in Germany, less seldom in England, more frequent in France than in either. Thus he has himself only seen two fatal cases; Hohl states that he has never seen a fatal case; while Paul Dubois has observed twenty. Dr. Horwitz is inclined to think with the majority, although cases collected by Rosenthal seem to show the contrary, that it is more common in first than in later pregnancies. He holds that we are justified in regarding the symptoms as a reflex phenomenon. The precise mode in which the reflex irritation comes about is hard to explain. Tyler Smith and Schröder have attributed it to distension and stretching of the uterus; but this is hardly consonant with the fact that the vomiting commonly comes on when the expansion of the cavity is slight, and ceases before it becomes great. Dr. Graily Hewitt's theory, that it is due, like most other derangements of females, to flexion, is rejected *in toto* by our author, on the grounds that we often see severe vomiting when the uterus is perfectly straight, and acute flexion without any sickness at all. He adds, "the epoch in gynæcology in which versions and flexions of the uterus were regarded as in themselves something very serious and pathological, is long gone by." He is in accord with Dr. Henry Bennet in thinking that many cases of severe vomiting of pregnancy depend upon inflammatory conditions of the uterus; but he differs from him in that he regards chronic inflammation of the body of the uterus as being of much more importance than erosion of the cervix. The latter condition, he points out, is extremely common, and he holds it to be of no consequence. In many cases of severe vomiting he has found the uterus larger than it should be, very tender, and less movable than natural; and these he regards as indications of an inflammatory condition of the body of the uterus. Perimetritis may also be the cause of very severe sickness. Some of the worst cases of pernicious vomiting depend on morbid conditions of the stomach, the reflex irritation which the pregnant uterus causes in the healthy stomach, being enormously increased when that organ is diseased. An unhealthy condition of any part of the alimentary canal will increase the severity, and the difficulty of repressing, the vomiting of pregnancy. In order that it may be efficiently treated, it is obviously necessary that a correct diagnosis should be made, and any of these adventitious conditions recognised if present. The prognosis largely depends upon the period of pregnancy at which the vomiting becomes pernicious. The earlier it reaches this degree, the graver is the outlook. The signs which indicate an approaching unfavourable termination are—the progressive diminution of the amount of urine passed, and the presence of albumen in it; dusky tongue; severe headache; small and rapid pulse; and, finally, an apathetic state of the patient. Lastly, we come to treatment. A legion of drugs have been recommended for the symptom under discussion; but as a case which yields to drug treatment cannot be called pernicious, their detailed consideration is outside the subject of this paper. The patient should be kept on her back, moving as little as possible, and the room should be darkened. The diet should be confined to articles of the most easily digested kind; but if the patient should wish for things not coming under such a rule, her cravings should be gratified. Bismuth, sucking ice, and counter-irritation to the epigastrium, are the most reliable means of checking gastric irritability. If these fail, and the patient can keep down no food, then we must resort to feeding *per rectum*—a means by which it is indubitable that life can be sustained. A beef and pancreas solution (three parts, by weight, of beef, one part of pancreas, to be chopped up finely, and triturated with two parts of water until a kind of pap is formed), forms the best nutrient enema. In administering these, the following precautions should be observed. The rectum should be emptied an hour or two before injecting nutriment. Too much should not be given at one time; three or four ounces are quite enough; and they should not be given so often as to irritate the bowel. If the patient be very weak, two or three teaspoonfuls of wine should be added to each enema. If the enemata are not well retained, a few drops of Tr. Opii should be given with each. The application of nitrate of silver to an erosion of the cervix, if this be present, Dr. Horwitz thinks advisable; but he regards this measure as simply one of the means of curing inflammation of the cervix, not as a specific for the vomiting of pregnancy. He disapproves of the use of pessaries, preferring to correct displacements by the use of sponge vaginal plugs. His own experience of the effect of Copeman's method, viz., dilatation of the cervix, would make him regard it as almost

useless; but on account of the warm praise lavished upon it by others, he thinks it worth trial. The last resource is the induction of abortion. There is abundant evidence, that often cessation of the vomiting follows the death of the fœtus, before abortion has taken place. Published statistics show a good percentage of cessation of the vomiting and recovery in cases treated by the induction of abortion; and that this has not been the case in a larger proportion, Dr. Horwitz thinks, is because it has too often not been done until the patient was in a hopeless condition. If done, it should not be postponed till the patient reaches this point. The means which our author prefers is the warm vaginal douche, followed by the dilatation of the cervix with tents. If this has not been done soon enough to give the patient a chance of recovery by the natural powers, one last means may be recommended to avert impending death, viz., transfusion. Dr. Horwitz, however, cannot say that he knows of, or has read of, a case of the kind in which this measure was of appreciable service.

The Castration of Women.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains an article by Dr Wilhelm Tauffer, of Buda-Pesth, on the above subject. He relates twelve cases of this operation performed by himself, and then presents the conclusions which follow. We cannot say that this author is as cautious in drawing inferences as we should like, but we give his propositions, which must be taken for what they are worth. (1.) Castration is an operation which with proper care is not attended with any great risk: the unavoidable mortality being now less than 10 per cent. (2.) The operation should be performed with antiseptic precautions and under carbolic spray; the abdominal cavity should be closed; drainage is only exceptionally required. (3.) The limitation, that castration is not called for when the climacteric is near, can only be conditionally accepted, because the age at which the climacteric occurs is very different in different individuals, and cannot be foretold. (4.) The condition laid down by Hegar, that the ovaries should be distinctly felt before their extirpation is attempted, is an impracticable one. (5.) Both ovaries should be removed, even if the disease be limited to one; excepting in cases where special circumstances make it desirable to leave behind the apparently healthy ovary. The reason for removing both ovaries is, that the remaining gland has a tendency to become diseased in the same way as its fellow. (6.) It is generally desirable to remove the tubes as well as the ovaries; and it is unconditionally necessary if there be the slightest appearance of disease in them. (7.) Hystero-epilepsy is curable by castration. (8.) The symptoms grouped together under the name of hysteria, when rightly analysed, can often be traced back to ovarian disease. (9.) The question as to the influence upon uterine fibroids of the ligature of large nutrient vessels going to them, without castration, is worth consideration. (10.) With regard to prognosis it is important to remember that the menopause only follows immediately upon the operation in those cases in which the neighbouring organs are not diseased; but all inflammatory conditions of them delay the climacteric. (11.) The final result of castration can only be determined after the lapse of months. (12.) It must be regarded as an open question how far diseases of the female sexual organs influence the development of certain psychoses. (13.) So must the question whether such psychoses are curable by castration. (14.) In the interest of unity and comparison of observations, it is desirable that the classification of cases (suitable for this operation) adopted by Hegar should be generally accepted.

The Dangers of Post-Partum Injections.—Dr. Simon Baruch, in the *New York Medical Journal*, January 5th, 1884, raises a plea against vaginal injections after normal labour. Referring to recent German correspondence on this point, he shows that a reaction against active antiseptic irrigation after labour has already set in abroad; and the fact that the frequent and probably clumsy introduction of the syringe-point (besides conveying sepsis) may itself produce fever, is emphasized in a recent paper by Kehrer ("Archiv für Gynäkologie," 1883). In the utero-vaginal tract after labour, there is, indeed, traumatism; yet it is not artificially, but naturally induced in a physiological process; and instead of a large percentage of deaths, as in the case of serious surgical operations (to which Dr. Thomas would liken the case of a woman in labour), there exists but a very small percentage of mortality or failure. Thus, Runge (who resorts to injections only where there is evidence of decomposition of the lochia), reports 1,500 cases treated expectantly, with a mortality of only 0·39 per cent. from sepsis, and this at a time when puerperal fever was supposed to be epidemic. Fischel reports 993 labours, with a mortality of 0·21 per cent.; and Fehling records, in 1879, 415 cases of labour, with no death from sepsis, although not a single irrigation was resorted to. Dr. Baruch pleads for "simple cleanliness on the part of the physician and nurse, before, during, and after labour," as the best of all prophylactic antiseptics; and quotes Briesky, who maintains that in normal labour Spiegelberg's "in Ruhe lassen" of the puerperal genitalia should be the rule. In his own practice he reports 900 cases of labour, in which almost every known complication was encountered, treated without any prophylactic measures, other than strict cleanliness, "with the result of only one death from a fever process."

PHARMACOLOGY AND THERAPEUTICS.

Refusion in Carbonic Oxide Poisoning.—In the *New York Medical Journal*, December 8th, 1883, Dr. W. S. Halsted, discusses this method of treating cases when death is imminent from inhalation of carbonic oxide or of illuminating gas. The practice consists in removing a quantity of the vitiated blood, and, after defibrination and oxidation, restoring it to the circulation; it is an infusion of pure, defibrinated blood in exchange for the individual's poisoned, entire blood. The good effects of venesection alone, in such cases, have been established by observation and by experiments on animals; why then, it might be asked, transfuse—if venesection accomplishes so much? If for no other reason, the author replies, in order to allow of repeated venesection: the poisoned individual should be bled freely, even after immediate danger seems to be over. Although bleeding of itself will probably suffice to save life in almost all cases which occur in practice, Kühne has shown that poisoned animals, beyond hope of rescue by venesection, can be saved by transfusion; in one instance, where respiration had been suspended for seven minutes, he was able to restore life to the animal by the infusion of defibrinated blood. The theory that the success of infusion depends on the substitution of corpuscles capable of carrying oxygen for those so vitiated as to be unable to perform this function, is negatived by the fact that saline injections are as efficacious as whole or defibrinated blood. As regards the various means by which the blood may be introduced, centrifugal venous infusion is at once rejected; so is centrifugal arterial injection, in view of cases of gangrene so caused, and of rupture of capillaries, owing to the force requisite for overcoming the vascular spasm. Of the two remaining possibilities, centripetal arterial is preferable to centripetal venous injection, because by the former method blood courses more slowly and equally to the heart; because the minutest airbubble is retained in the capillaries; and because the danger of phlebitis is avoided; moreover, arterial blood is thus most directly despatched to the nerve-centres, whence their venous blood is propelled onwards into the veins, and the filling of the arterial system rejuvenates the circulation by creating a considerable difference between the pressures in the two systems. The author's practical results confirm these theoretical advantages. The details are given of two cases successfully treated in this manner.

Danger of Large Doses of Quinine.—Professor A. A. Smith, in a paper read before the New York Clinical Society (*New York Medical Journal*, February 2nd), drew attention to the danger which may accrue sometimes from the administration of very large doses of quinine (30 to 60 grains) for the diminution of temperature in the state of

hyperpyrexia. His own observations have led him to the following conclusions: (1.) "Large doses of quinine should not be given in any case of high temperature after heart failure begins, unless agents to counteract their effect on the heart are given. (Almost any of the cardiac stimulants will aid in counteracting the effect of these large doses, but they should be given every two or three hours, and kept up even after the effect of the quinine has passed off. Small doses of opium best answer the purpose. In doses of a quarter to half a grain it is a cardiac stimulant, besides being, under conditions of high temperature, a great sedative to the nerve-perturbation which accompanies such condition). (2.) Great caution should be exercised in any case of organic disease with enfeebled power, and when used for old people with high temperature." "I am well aware," he says, "of the popular prejudice against quinine, and have hesitated somewhat in calling attention to some of the points involved in this question, because there are so many conditions which can be relieved by quinine better than by any other agent. Indeed, I place it second in importance only to opium in the treatment of disease in this region."

Compression of the Carotids, Combined with Electrisation of the Vagi and Sympathetic.—In the *New York Medical Journal*, February 23rd, Dr. J. L. Corning describes an instrument adapted for this purpose. In shape it resembles the letter Y; the extremities of the two arms can be accurately separated or approximated by the action of a milled head in the handle. To the extremity of each arm a small sponge electrode can be attached, when it is desired to employ electric stimulation in addition to compression; the two conducting cords from the electrodes unite in one common stem, so that the polarity of both electrodes is the same, the other end of the stem being attached to one pole (usually the negative) of a galvanic or Faradic apparatus. The electrodes can be fixed at any desired angle, and the carotids can thus be compressed obliquely, towards the spinal column, and away from the jugulars, thus reducing venous pressure to a minimum. The other pole of the electric apparatus is connected with a curved metallic plate which is applied over the back of the neck. Compression should be carefully regulated, with the view of avoiding dizziness or syncope; and the greater the amount of compression, the less should be the strength of the current, and *vice versâ*; sudden variations in either of these factors are to be carefully avoided. Thus used, the instrument is capable of effecting (1) diminution of the amount and pressure of the cortical blood stream; (2) contraction of the cerebral capillaries; and (3) retardation of the heart's action (*when currents of considerable strength are employed*). Dr. Corning also believes, as the result of experiment, that a *direct* limitation of the processes of intra-cellular activity is attained. In "congestive headache" (angio-paralytic migraine), "its effects are positively magical," such attacks being often cured in a few moments. Dr. Corning finds it of value in epilepsy, and anticipates good results from its employment in the first stages of general paralysis of the insane. He states that the primary stage of excitement incident to etherisation is cut short by resort to this method, and the amount of anæsthetic required is proportionately reduced. Preference is given to the constant galvanic current.

Veratria in the Pruritus of Women.—All acquainted with the incessant suffering which some women undergo from pruritus at the period of the menopause, must be very desirous of being made acquainted with a prompt remedy for so distressing an affection. Whether it arise from the presence of prurigo, urticaria, eczema, herpes, or whether it exist without any eruption at all, it is alike difficult to allay, as the great number of remedies which have been proposed testifies. Of these veratria is by far the most efficacious. When the pruritus is localised at the groins, arm-pits, walls of the abdomen, or behind the ears, gentle friction night and morning with an ointment, consisting of thirty parts of lard and a quarter of a part of veratria, usually gives relief. When the pruritus is generalised, the internal administration of the veratria is preferable. Two centigrammes should be made into ten pills with liquorice powder, of which from two to six should be taken daily, either half-an-hour before, or three hours after meals. Only one should be taken at a time, an additional one being given each successive day until the maximum of six (three milligrames) is attained.—Dr. Chèvon, *Le Progrès Médical*, February 23rd.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 8th, 1884.

Dr. George Johnson, F.R.S., President, in the Chair.

The Pathology of Myxœdema as illustrated in a Typical Case.

By John Harley, M.D. Lond., F.R.C.P., Lecturer on General Anatomy and Physiology, and Physician to St. Thomas's Hospital.

The author gave the history of a typical case which was under his care at St. Thomas's Hospital for a period of nearly seven years. The *post-mortem* examination revealed extensive adhesions and thickening of the pleuræ with fibrous degeneration of one lung, and also traces of general peritonæal inflammation, the result of a severe illness after the birth of the patient's last child, ten years before her death. The thoracic ganglia were deeply implicated in the adherent and degenerated pleuræ, and on the left side the ganglia could not be satisfactorily distinguished. Apart from these morbid changes, two main facts were obvious. Firstly, the quantity of blood was small: although the heart was contracted and empty, and one lung degenerated and much less vascular than the normal organ, there was no noticeable fulness either of the superficial veins during life or of the great internal veins after death. Secondly, all the tissues were abnormally firm and tough:—there was a general increase of connective tissue throughout the body. The amount of mucin contained in the more important tissues and organs was determined. The author was not aware that the proportions of mucin, and the other constituents of healthy tissues of various ages, had been ascertained, and he had, therefore, determined this question in respect of another patient, a woman, aged twenty-four, who died of mitral disease. On comparing the analyses in the two cases, it appeared that the quantity of mucin was nearly doubled in the myxœdemic case. The author, however, hesitated to conclude from such scanty evidence that the mucin was in excess of the normal amount. But he thought that the question of an increase of mucin sank into insignificance in face of the unmistakably great increase of connective or fibrous tissue, and to which the increase of mucin, if this should be constantly demonstrated, might be regarded as secondary. The cerebro-spinal nervous system was evidently very slightly affected, but the sympathetic was in many cases more deeply involved. He referred to a case of so-called "simple atrophic sclerema," but really one of fibrous degeneration of the lungs and thoracic sympathetic, published in vol. lx, of the "Transactions of the Royal Medical and Chirurgical Society," as illustrating this view. The myxœdemic and scleremic conditions in these patients were merely the consequence of severe internal inflammation, experienced

years before and affecting, *inter alia*, the pleuræ and peritonæum, and the sympathetic ganglia adjacent to these membranes. In the two cases referred to, fibrous degeneration of the lung was a notable factor in the disease, but it was of course conceivable that myxœdema, scleroderma, and its allies might have their origin in inflammatory or other changes exclusively confined to the sympathetic ganglia. If this view of the pathology of the disease should prove correct, myxœdema should not be regarded as a specific disease, but merely as a variety of what the author termed "a chronic cold debility," dependent on depression of the vital functions, and frequently associated with fibroid degeneration of the lungs; a condition, usually, if not always, traceable to some severe antecedent illness attended by internal inflammation.

Dr. Ord did not quite know whether to rejoice or to regret that his former patient, the subject of the paper, had fallen into the hands of his colleague, Dr. Harley. The Society had, however, the advantage of hearing a totally independent view of the disease, and from one, who had apparently kept his mind uninfluenced by any previously expressed views. Under these circumstances, it was pleasing to find that Dr. Harley regarded the disease as a distinct entity. He was obliged to differ in some respects as regards the clinical details, for he still thought the central nervous system suffered; it was not a little remarkable, that many well-marked cases of the disease had been found in lunatic asylums; besides this, distinct histological changes had been found in the nerve tissues. He could not accept the view that the thyroid atrophy was secondary to the disease, he believed it was, on the contrary, an essential element of the disease. He enquired as to the meaning of the term "chronic cold debility."

Dr. Ralfe thought that the author's observations on the lessened quantity of blood, and on the diminution and fluctuation of the urea, both interesting and important. The facts spoke to lessened metabolism, which was taking place in the body generally. He said the increase of connective tissue referred to as being present in the body generally would account for the increased quantity of mucin. There was a parallel disease of the osseous tissue in osteo-malacia, and this, he thought, favoured the idea that the metamorphosis of the tissues was really a reversion to a fœtal type of tissue.

Dr. Duckworth asked the author to briefly state what his views really were concerning the nature of the affection. In his own opinion, the disease was quite distinct as a clinical entity, though its pathology still remained somewhat obscure.

Dr. Hadden expressed his belief that the atrophy or absence of the thyroid was an essential part of the disease.

Dr. Harley replied, after which the Society adjourned.

OBITUARY.

SURGEON-GENERAL CHARLES ARCHER, M.D.

Dr. Archer, late of the Indian Medical Service, well known in Bengal for his profound knowledge and successful treatment of diseases of the eye, died in London, March 17th. Born in 1818, he was a lineal descendant of John Locke, and studied medicine at the Westminster Hospital, under Guthrie and White, with such zeal and success that before he was twenty-one he was placed in charge of the Ophthalmic Hospital, Charing Cross, and became house surgeon of the Westminster. On obtaining the diploma of the Royal College of Surgeons, he entered the Indian Medical Service in 1841, and, after holding several important posts with distinction, he eventually came to Calcutta, where he was appointed Professor of Ophthalmic Surgery at the General Hospital, the Ophthalmic Hospital being also placed under his charge. He acquired a large private practice, but found time to pursue scientific investigations, the results of some of which, on light, appeared in a paper read before the Royal Society. Well known to Lord Elgin, on this nobleman's death, in 1865, he was selected by the Indian Government to accompany Lady Elgin home. In 1868, he became deputy-inspector of hospitals in the North Western Provinces, and latterly in Oude, where he must be well remembered. He retired from the service in 1873; and in 1878, with the permission of the English Government, and at the request of the Dutch Government, he repaired to Java and Sumatra in order to investigate the origin of the cholera that had long decimated the troops at Atchin. This mission was eminently successful. Although Dr. Archer never practised after his retirement, he was always ready to aid those in need of his advice, especially in regard to diseases of the eye, in the treatment of which he was so great a proficient.

GENERAL CORRESPONDENCE.

CREMATION.

[To the Editor of the Medical Times.]

Sir,—In a letter dated 22nd April, 1874, which you kindly published for me from Regent's Park, N.W., I ventured to observe with regard to Cremation, so ably suggested by Sir Henry Thompson, that it did not require deep thought to see in Cremation the forerunner of many a "Lucrezia Borgia." As a *complete safeguard* against this most serious and glaring possibility, I perceive that the Council of a Society, calling itself the Cremation Society of England, have decided "that a certificate must be sent in by one qualified medical man *at least*, who attended the deceased until the time of death, unhesitatingly stating that the cause of death was natural and what that cause was." I fail to see much difference between this certificate and the usual one given by every medical man; yet cases have occurred where exhumation has proved the death *un*natural. We will suppose, for instance, that a man wished to poison his wife by slow poison, and that he managed to pick a quarrel with her usual medical attendant, discharged him, and a week after the wife died, having been seen by another medical man up to the hour of her death, he being under the impression that her case was misunderstood by her usual medical attendant. Again, would there not be considerable touting for names to be placed on the Company's Books for those who *wished* to be cremated? Cremation, in my opinion, can only be justifiable in cases of criminals, and I sincerely hope that, unless a perfect *post-mortem* examination is carried out in *every* other case of death, the Legislature will abolish all attempts at it in this country.

I am, Sir, yours, &c.,
COSMO LOGIE, M.D.,
Deputy-Surgeon-General.

47, *Queensborough Terrace, Bayswater, W.*
April 7th, 1884.

THE PSYCHICAL RESEARCH SOCIETY AND "CLAIRVOYANCE."

[To the Editor of the Medical Times.]

Sir,—I read with much interest the articles on "Mesmerism" which appeared in your paper in the latter part of last year; and was especially struck with the fact that no comment was made by Mr. Gurney on your assertion, dated November 24th, that on a certain occasion last spring, a party of scientific men, invited to the rooms of the Psychical Research Society, came to a definite conclusion as to the nature of the "experiments" shown. No result, you say, was obtained when effectual means were taken to prevent sight and hearing by the subject; and the inference is obvious.

I have but lately heard an account of a *séance* or *séances* of this Society which strongly corroborates the view taken in your columns of the untrustworthiness of the methods of research employed by the investigators. A medical man

was invited to attend a meeting where the phenomena of so-called *clairvoyance* were to be observed. The subject was apparently blindfolded, and, after an alleged operation of "mesmerism," correctly named several cards which were unknown to the assembled company, but were handed to him, and placed by him at some elevation above and some distance from his bandaged eyes. Despite of a somewhat elaborate method of apparently occluding the subject's vision, the medical observer expressed his opinion that the cards could be easily seen by him; and the sceptic was accordingly invited to blindfold the man himself.

He proceeded to place pads of cottonwool in the orbits and to apply a bandage; but was told by the professed mesmerist that the organs by which the subject mentally saw the cards were placed in the forehead, and must not be covered up. He, therefore, endeavoured to observe this "condition," but so applied the cottonwool and the bandage as to be quite satisfied that the subject could not see. *No result whatever was obtained during the rest of the séance.* I cannot doubt that a report of this "blank day" will be given in the *Proceedings* of the Society. But I venture to trouble you with this letter in the belief that it may interest those of your readers who may have followed the recent correspondence on this subject in your columns, and as a not altogether irrelevant comment on Professor Sidgwick's statement not long ago, in a lecture given at the London Institution, that the Psychical Research Society had definitely ascertained certain "facts" hitherto unrecognised by science.

I am, Sir, yours, &c.,

April 8th, 1884. H. B. DONKIN.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

The ordinary monthly Council was held on Wednesday last. The first business transacted was an address of condolence to Her Majesty the Queen, on the death of H.R.H. the Duke of Albany. Subsequently, a vote of congratulation was agreed upon to the University of Edinburgh on the completion of its three-hundredth year of existence. The President will personally present the vote at the anniversary meeting, when he will officially represent the College on the occasion. The report of the Museum Committee on the duties and emoluments of the new conservator was next considered. As before, the conservator will be the head of the Museum Department, and the salary will be 600*l.* per annum, with residence on College premises. The appointment will be advertised; applications from intending candidates must be in the Secretary's hands not later than May 3rd. The next matter concerned the Secretary. In consideration of his having completed twenty-five years of Service in the College, and in recognition of his arduous labours in connection with the proposed legislative changes, it was proposed that a sum of 500*l.* be presented to Mr. Trimmer, in acknowledgment of his zealous activity in the interests of the College.

The Jacksonian Prize for last year was awarded to Mr. Frederick Treves, F.R.C.S., Assistant Surgeon to the London Hospital, &c., for his essay on the "Pathology, Diagnosis, and Treatment of Obstruction of the Intestines in its various Forms in the Abdominal Cavity." There were only two competitors. The subject for the ensuing year is "Renal Surgery."

A letter was then read from the Home Secretary in answer to a communication made jointly with the College of Physicians concerning the prosecution of Messrs. Bower and Keates. The Home Secretary stated that the advice of the most competent medical men would be sought, so as to prevent any injustice being done to members of the medical profession.

The Report of the General Meeting of the Fellows and Members held on March 24th last was presented. Its further consideration was deferred to the next meeting, which will take place on May 8th.

A letter from Mr. Tweedy, F.R.C.S., calling attention to Section VII., Vict. 15, with regard to members of Council not in actual practice was then read. The letter was referred to the President and Vice-Presidents for consideration. Sir James Paget presented, on behalf of Dr. John Richard Farr, a large and valuable collection of water-colour and other drawings of pathological subjects left by his father, Dr. Arthur Farr.

The Council then adjourned.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners on the 4th instant, and when eligible, will be admitted to the pass examination, viz.:—Messrs. William H. Tomlinson, C. F. Cheetham, Arthur Greenhalgh, and F. J. Wheeldon, students of the Manchester School of Medicine; A. S. Wilson, E. H. Douty, Thomas Redmayne, and W. K. Sibley, of the Cambridge University; Sargon Fordoff, A. S. Barling, and William Porsitt, of the Leeds School of Medicine; B. G. Sumpter and A. S. Bradbury, of the Newcastle-upon-Tyne School of Medicine; R. J. Mc L. Buchanan, of the Liverpool School of Medicine; A. J. Gorr and G. E. Deacon, of St. Bartholomew's Hospital; Hugh Smith, of the London Hospital; Henry George and S. C. Phillips, of St. Thomas's Hospital; F. W. Fowler, of the Birmingham School of Medicine; H. P. Ziemann, of the Charing Cross Hospital; R. J. Marks and C. E. S. Fleming, of the Bristol School of Medicine. One candidate having failed to acquit himself to the satisfaction of the Board of Examiners, was referred to his anatomical and physiological studies for three months. The following gentlemen passed on the 7th instant, viz.:—Messrs. C. F. Williamson, P. A. Houghton, and W. H. B. Brook, of St. Bartholomew's Hospital; F. W. Abbott and C. P. Oliver, of the Charing Cross Hospital; H. J. Macway, of St. Thomas's Hospital; Arnold Scott and E. R. Davies, of Guy's Hospital; H. W. Dumerque, E. C. Perry, C. W. Daniels, and R. M. Brown, of the University of Cambridge; Eber Candwell and John Watson, of the Westminster Hospital; H. J. Wheeler, of St. George's Hospital; and J. E. Thompson, of the Manchester School. Seven candidates were referred for three months, and one for six months. The following gentlemen passed on the 8th instant, viz.:—Messrs. W. Balgarnie, M. O. Mamson, C. A. Parker, F. G. Engelbach, and O. E. P. Evans, of St. Bartholomew's Hospital; D. Owen and W. P. Stocks, of the Manchester School of Medicine; G. A. Barton, of St. Mary's Hospital; H. Duncan, T. E. Stuart, C. Brown, and H. P. Hawkins, of St. Thomas's Hospital; A. W. F. Noyes, of Charing Cross Hospital; D. J. Mantri, of the London Hospital; H. E. Crook and F. S. Hawkins, of Guy's Hospital. Eight candidates were referred for three months. The following gentlemen passed on the 9th inst., viz.:—R. H. W. Wilbe and K. W. J. Mackenzie, of St. Bartholomew's Hospital; W. F. Clarke, of Guy's Hospital; H. Goodale and N. Lawson, of St. George's Hospital; J. C. Rossall, of St. Mary's Hospital; J. Hamel, C. P. O'Connor, H. P. Dean, and F. G. S. G. Martin, of University College Hospital; R. H. Penton, E. J. A. Haynes, and T. N. Thomas, of London Hospital; G. Barlow, of Manchester; S. W. Wheaton, W. F. Ward, and C. O. Parsons, of St. Thomas's Hospital; G. H. O'Reilly, of King's College Hospital; H. C. Bartlett, of Middlesex Hospital; and C. Scatchard, of Leeds. Two candidates were referred for three months, and one for six months.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 3, 1884:—

Cooper, Chas. Bolingbroke, Oakhill Park, Stoneycroft.
Johnson, Obadiah, Hastings, Sierra Leone.
Jones, Thomas, Columbia Road, Hackney Road.
Newton, Sidney Frederick, Long Acre, W.C.
Nunn, John Robert, Repton, Burton-on-Trent.
Swindlehurst, Thos. Newton, Newington Crescent, S.E.
Tovey, Reginald Samuel, Royal York Crescent, Clifton, Bristol.

Naval Medical Service.—The following promotions have been gazetted:—Staff Surgeon William Dudley

Wodsworth, to the rank of Fleet Surgeon in Her Majesty's Fleet. The under-mentioned Surgeons to the rank of Staff Surgeon in Her Majesty's Fleet (dated March 30) :—John William Davis, M.D., Henry Thompson Cox, Cecil Drake, John Wood, Alfred Thomas Corrie, John Mackie, Henry Scanlan, M.B., and Herbert Mandeville Nash.. The following appointments have been announced :—Staff Surgeons—John W. Davis, M.D., to the *Duncan*, additional, for temporary service in lieu of a surgeon ; Henry T. Cox, to the *Cambridge* ; Cecil Drake, to the *Inflexible* ; John Wood, to the *Neptune* ; Henry Scanlan, to the *Belleisle* ; Herbert M. Nash, to the *Lion*. Surgeons—Edgar R. Dimsey, to the *Hercules*, complement incomplete ; Anthony R. Lynch, to Malta Hospital, *vice* Yeo ; Matthew Digan, to the *Sphinx*, *vice* Logan ; Arthur W. Russell, to the *Polyphemus*, *vice* Digan ; Robert F. Yeo, to the *Decoy*, *vice* Lightfoot ; John Wilson, M.D., to Sheerness Dockyard, *vice* Lynch ; James B. Clibborn, to Plymouth Hospital, *vice* Wilson ; James Porter, M.B., to the *Euryalus*, additional, for the Marine Battalion in Egypt ; William Thompson, to the Portsmouth Division of Royal Marines, *vice* Porter.

Royal Institution of Great Britain.—The following arrangements for the lectures after Easter have been announced :—Dr. Klein, two lectures on "The Anatomy of Nerve and Muscle ;" on Tuesdays, April 22 and 29. Professor Gamgee, five lectures on "The Physiology of Nerve and Muscle ;" on Tuesdays, May 6 to June 3. Professor Dewar, M.A., F.R.S., M.R.I., seven lectures on "Flame and Oxidation ;" on Thursdays, April 24 to June 5.

Royal Medical and Chirurgical Society.—The Library of this Society will be closed from Good Friday to Easter Monday, both days inclusive.

Conference on School Hygiene.—The Council of the National Health Society having been invited by the Duke of Buckingham, Chairman of the Executive Committee of the approaching International Health Congress to suggest a subject for a conference to be held at the same time, have determined to hold one on School Hygiene, to which the most eminent authorities on the Continent and in America will be asked to contribute papers on various questions, especially those on which we in England may learn much from our neighbours. The secretary of this conference is Dr. Edward F. Willoughby, who had already acted in the same capacity for the Committee which was appointed by the Society on the subject of the use of poisonous pigments, and which has drafted a Bill for the prohibition and regulation, under certain circumstances, of arsenical colours, based on the laws in force in other countries. Any communications on school hygiene, in every branch, will be thankfully received by him, addressed to the offices of the National Health Society, 44, Berners Street, S.W.

Bristol Royal Infirmary.—The Secretary has favoured us with the following analysis of casualties treated during the year 1883 :—Broken legs 93, arms 64, ankles 57 ; burns 118 ; scalds 124 ; run over 73 ; broken thighs 33 ; injuries to knee 141, eye 219, arm 193, ribs 92, shoulder and back 124, stomach 57, back (alone) 48, thigh 21, mouth 80, face and nose 167, groin 17, chest 9, foot 228, finger 272, hip 23, side 43 ; cut hands, wrists, &c. 437, heads 239, arms 122, lips 123, legs 194, tongue 38 ; crushed hands 90 ; bites by human beings 17, dogs 109, cats 12, monkey 1, horses 7 ; kicked by horses 3 ; needles in hand, &c., 25 ; swallowing pins, coins, &c., 12 ; bones lodged in throat 27 ; falls from scaffolding 13, out of window 3 ; injuries to breast 18 (women) ; foreign bodies lodged in nose, ear, &c., 18 ; cut throats 3 ; kicks in vital parts 5 ; sprains, bruises, wounds, &c. (difficult to classify) 674—total 4,486, being upwards of twelve daily through the year.

The Third Italian Surgical Congress.—It has been decided by the Committee that the third Surgical Congress shall be held at Turin (during the International Exposition), from the 15th to the 20th of September, under the presidency of Professor Battini. Communications, exclusively relating to surgery, instruments, and anatomical, pathological or microscopical preparations, are to be forwarded at least a month before the meeting of the Congress, addressed to the Secretaries, at the Accademia Medica di Torino.

The Police and Ambulance Work.—The Commissioner of Metropolitan Police has forwarded to the Central Executive Committee of the St. John Ambulance Association a report of a most effective case of "first aid to the injured" rendered by Police Constable Thomas Pearson, 112 B, who was awarded a certificate last year after attending the classes at Albany Street Police Station. It appears that a man was found by the Constable in the Buckingham Palace Road, suffering from hæmorrhage, caused by the bursting of a varicose vein. Pearson immediately took the proper measures to arrest the bleeding, and afterwards conveyed the man to the Westminster Hospital, where it was stated that had these precautions not been taken, the man would probably have bled to death, a letter being subsequently received from Dr. Newick, the acting house surgeon, testifying to the opportune good service rendered by Police Constable Pearson, who will be rewarded by the Commissioner. Considering the frequency of accidents in our streets, and that the duty of conveying the unfortunate sufferers to the hospital devolves upon the police, too much praise cannot be accorded to the numerous officers of the force of all grades who voluntarily attend these classes.

School Attendance and Infectious Disease.—A memorial has been drawn up and signed by eighteen medical officers of health in the County Sligo, with reference to the spreading of infectious diseases amongst children attending National Schools. Children, it is stated, are sent to school from homes in which scarlatina, measles, and whooping-cough exist, "thereby making the school a centre of contagion whereby the lives of children from healthy homes are endangered and often sacrificed." It is urged that school teachers do not take means to put a stop to this deplorable evil because it would mean a pecuniary loss to them were the number of attendances lessened, and therefore they do not exercise proper care and circumspection or render any effectual aid in preventing the spread of disease. It is suggested by the memorialists that when any infectious disease breaks out in the district, and is likely to become epidemic, the schools should be closed by the sanitary authority, and the pecuniary loss should be made good to the teachers, by which means their assistance might be calculated on in the important work of the preservation of the public health.

Hospitals at Cairo.—A meeting was recently held to arrange for the amalgamation of Lady Strangford's Hospital with the German Deaconesses' Hospital. Sir Evelyn Baring, who presided, gave a sketch of the history of the Lady Strangford Hospital, and stated the reasons which had now caused it to be closed, winding up with the expression of his hope that all present would heartily support the new German-English Hospital, to which Her Majesty had graciously consented to give the name of the Victoria Hospital. The Egyptian Government promises an annual subsidy of 2,000*l.*, but 1,500*l.* are still needed for opening the new hospital.

Edinburgh Quarterly Health Returns. — The total number of deaths recorded in this city during the past three months was 1,191, giving a death-rate of 19·31 per 1,000 of the estimated population. The zymotic mortality was as follows :—Typhus, 4 ; typhoid, 16 ; diphtheria, 11 ; scarlatina, 34 ; measles, 53 ; whooping-cough, 45 ; erysipelas, 5.

The Vienna Registration Returns for 1882.—The marriages were 6,526 in number. There were 29,262 births (27,857 living and 1,405 dead children), 15,085 being males, and 14,164 females, the sex of 13 fœtuses not being discernible. There were 16,605 of the number legitimate, and 12,657 illegitimate, the percentage of illegitimate births having fallen from 45·2 in 1881 to 43·2 in 1882. There were but 39·5 births per 1,000 in place of 41·7 in 1881. The deaths amounted to 21,595, or 29·2 per 1,000. In March the highest, and in September the lowest, mortality occurred. A fourth of the entire number of deaths arose from tuberculosis.

THE PHYLLOXERA IN 1883.—At the last meeting of the Phylloxera Commission it was announced that none of the procedures proposed for the extermination of this pest of the vine during 1883 offered any hopes whatever of success; and that the prize of 300,000 francs offered, by the law passed, as long ago as 1874, to the author of an efficacious and practical remedy, cannot be awarded. The commission, therefore, recommends the continuance of the employment of submersion, the bisulphide of carbon, and the sulphocarbonate of potassium. "It has observed with the greatest satisfaction that the defence and reconstitution of the vines are more and more developed every year, giving rise to the best hopes for the future."—*Revue Scientifique*, March 8th.

THE BENGAL CENSUS OF 1881.—The *Indian Medical Gazette* for February supplies an interesting analysis of the census returns for Bengal, taken in 1881. The total population was found to be 69,536,861, viz., 34,625,591 males, and 34,911,270 females. The average density of population, was 371 per square mile, or excluding Feudatory States, 442. The province is the most densely peopled of all Indian provinces, and is not far behind Belgium with its 486 and England and Wales with 445. Different parts of the province vary greatly in populousness, the density of the Feudatory States being but 77, while that of Bengal proper is 505. The most populous district is Howrah, with 1,027 inhabitants to the square mile. But Bengal differs widely from European countries in the small proportion of its urban population, which consists only of 5·26 per cent. of the whole population—this being in England 66 6, in France 36·6, and in the United States 22·5 per cent. Bengal is, in fact, a country of villages, and large towns are few in number, and not very populous. Compared with 1872, the population has increased by 10·89—part of such increase being due to improved enumeration. Of the entire population, 65·56 are Hindoos, 31·21 Mahomedans, 18 per cent. Christians, and 0 22 are Buddhists, and other religions 3·01. Almost the whole of the female population becomes married before the age of 20; and between the ages of 30 and 39 there are 90·23 of the whole male population married. While the great majority of girls marry before the age of 15, only one-fifth of the boys are married at that age, and only one-fifth are married before they are 20. Statistics were collected regarding four kinds of infirmity, viz., insanity, from which 4·43 per 10,000 suffered (in England 30·39); blindness, 14·03 (in England 9·51); deaf-mutism, 12·32 (in England 5·07), and leprosy, 8·15.

DEATH OF DR. CHARLES WILSON, OF EDINBURGH.—Charles Wilson, M.D., F.R.C.P. Ed, whose death was recently announced, was born in 1804, graduated at Edinburgh, subsequently studied at Paris, and practised at Kelso from 1828 to 1854. Then after visiting the Medical School of Vienna, he settled down in Edinburgh and continued to practise till 1864, when he retired. He was mainly instrumental in founding the Edinburgh Sick Children's Hospital, and was for several years honorary librarian to the College of Physicians. In 1855, Dr. Wilson published a work on the "Pathology of Drunkenness," and among his contributions to medical journals were articles on "Croup," and on the "History of Medicine in Spain."

DEATH OF MRS. HANCOCK.—The death is announced of Mrs. Hancock, the widow of Mr. Henry Hancock, Surgeon to the Charing Cross Hospital, and formerly President of the Royal College of Surgeons; she died at the Palace, Gibraltar, the residence of her son, Sir. H. Burford Hancock, on the 27th ultimo.

CHARITABLE BEQUESTS.—Mrs. Mary Tait, late of York Terrace, Regent's Park, has bequeathed under the name of "The Carlyle Bequest," 2,000*l.* each to the Royal Infirmary Lunatic Asylum and Lock Hospital; the Northern Hospital; the Southern Hospital; the North, South, and East Dispensaries; the Infirmary for Children; the Hospital for Consumption and Diseases of the Chest, Brompton; St. George's Hospital, Hyde Park Corner; St. Mary's Hospital, Paddington, and the Birkenhead Hospital; 1,000*l.* each to the Bootle Borough Hospital, the Consumption Hospital, Liverpool, and the Eye and Ear Infirmary, Liverpool.

ABSENCE OF THE KIDNEYS AND UTERUS.—It may interest some of our readers to be made aware that Dr. Edmondo Coen, assistant pathologist in the University of Bologna, furnishes, in the *Annali Universali di Medicina*, for January, a minute anatomical description, illustrated by figures, of a fœtus without kidneys or uterus. The paper is far too long to admit of insertion in our pages.

HYDROPHOBIA.—An inquest was held on Saturday at St. Bartholomew's Hospital on the body of a young man, who had died of hydrophobia a month after being bitten by a cat.

ADULTERATED BUTTER IN AMERICA.—The *New York Medical Record* of March 8th states, "The Senate committee have been investigating the subject of adulteration of butter with interesting results. About a million and a half pounds of imitation butter is annually sent into New York, a large part of it coming from the West. Two-thirds of the ordinary butter of the grocers is imitation. Butterine is made from lard and butter, coloured with annatto, and subjected to certain processes of melting and cooling, by which the ingredients are amalgamated. Oleomargarine, which is more notorious in the market than any other of imitation butter, is made from beef fat by various processes, the secret of each being carefully guarded as a trade receipt, although the general features of the rendering are well known. These imitations, when carefully made, are harmless, but they ought to be made under official inspection."

AT a meeting of the Surrey magistrates on April 8th, reports were presented by the visiting justices of the three county lunatic asylums with respect to the management of these institutions during the past quarter. At Wandsworth the number of inmates on the 15th ultimo was 1,016, showing a decrease of 26. At Brookwood there were 1,041 inmates, being a decrease of 29. At the new asylum at Canehill the number of inmates was 1,591, an increase of 511 during the quarter.

CORRIGENDA.—In the paper by Dr. Campbell Brown, and Mr. Davies, published in the last issue of the *Medical Times*, we have to note the following four corrections:—p. 451, first column, fourth line from bottom, for twelve read eighteen; p. 451, second column, thirteenth line from top, for 0·3 read 1·03; same column, twenty-fifth line from top, for 1 grain read 1·1 grain; same column, nineteenth line from bottom, for 1st read 6th.

APPOINTMENTS.

BLACK, R., M.D., M.R.C.S., L.S.A.—House Surgeon to the Sussex County Hospital, *vice* Bernard Scott, retired.

BUXTON, D. W., M.D., B.S., M.R.C.P.—Administrator of Anæsthetics to the Hospital for Women, Soho-square, *vice* T. Bird, Esq.

EDIS, ARTHUR W., M.D. Lond., F.R.C.P.—Obstetric Physician to the Middlesex Hospital, *vice* John Hall Davis, M.D., deceased.

HARRIES, A. J., M.D., &c.—Assistant Surgeon to St. John's Hospital for Diseases of the Skin.

HASLAM, GEORGE JAMES, M.D.—Honorary Physician to the Hulme Dispensary, Manchester, *vice* George Bowman, M.D., resigned.

KEBBELL, C., M.R.C.S., L.S.A.—Junior House Surgeon to the Sussex County Hospital, *vice* R. Black.

PALMER, J. F., L.R.C.P., M.R.C.S.—Assistant Surgeon to St. John's Hospital for Diseases of the Skin.

POWELL, J. J., M.R.C.S.—House Physician to University College Hospital, late Obstetric Assistant to the same Institution.

STARTIN, JAMES, Honorary Surgeon and Lecturer to St. John's Hospital for Diseases of the Skin, Leicester Square, London.—Honorary Consulting Surgeon to the Sheffield Public Hospital for Diseases of the Skin.

VACANCIES.

BIRMINGHAM GENERAL HOSPITAL.—Resident Surgical Officer, &c. *(For particulars see Advertisement.)*

CARLISLE DISPENSARY.—Junior House Surgeon. Salary, £100 per annum, with apartments (not board). Applications, stating age and qualifications, to be sent to the Hon. Secretary, Mr. John Ostell, 14, Bank Street, Carlisle, on or before April 15th.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary, £100 per annum, with furnished rooms, coals, and gas. Candidates' names must appear on the Medical Register, as being possessed of a Medical and Surgical Qualification, and they must produce evidence of good moral character. Private practice prohibited. Applications, with testimonials, to be sent to the Honorary Secretary, 10, South Bailey, Durham, on or before April 15th.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary, £100 per annum, with furnished house, &c. Candidates' names must appear on the Medical Register, as being possessed of Medical and Surgical qualifications, and they must produce evidence of good moral character. Private practice prohibited. Candidates conversant with the Welsh language preferred. Applications, with testimonials, to be sent to the Secretary, on or before April 15th. The election will take place on April 30th.

DEATHS.

BEST, H. D., M.R.C.S., J.P., at Bilston, on April 6th, aged 51.
CROWN, J. W., M.B., at Terowie, South Australia, on April 4th, in his 33rd year.
NIVEN, D. G., F.R.C.S., at Udny House, Teddington, on April 6th, aged 72.

NOTES, QUERIES, AND REPLIES.

VEGETARIANISM.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—May I ask through your columns for information regarding the cure of disease by means of a non-flesh diet? Will my brother practitioners who have received any benefit themselves from the disuse of flesh, or who have seen cases recover by the disuse of flesh, kindly send me an account of such? Or if any have seen disease produced by the adoption of a vegetarian diet, will they kindly give me an account of it? Any other facts or observations regarding food, will be thankfully received.

I am, Sir, yours, &c.,
T. R. ALLINSON, L.R.C.P. Edin., &c.,

34, *Claremont Square, N.*,
April 8th, 1884.

COMMUNICATIONS RECEIVED—

Dr. T. H. WILLIAMS, Denbigh; Sir EDMUND LECHMERE; Dr. REDWOOD, London; Messrs. LEBON & Co., London; Mr. W. J. WALSHAM, London; Dr. ACLAND, C.B., Oxford; Mr. H. W. GELL, London; Dr. COLLINGRIDGE, London; THE REGISTRAR, GENERAL MEDICAL COUNCIL, London; Mr. HOBSON, London; Mr. DIXON, Dorking; Dr. HERMAN, London; Surgeon-General LOGIE, M.D., London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. J. H. WILLIAMS, Denbigh; Dr. CLIFFORD ALLBUTT, Leeds; Dr. DONKIN, London; Dr. EARDLEY WILMOT, Leamington; Mr. G. F. CHAMBERS, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; Mr. A. S. KENNY, London; Dr. EDIS, London; Mr. T. R. ALLINSON, London; THE HON. SECRETARY, PATHOLOGICAL SOCIETY OF LONDON; THE REGISTRAR-GENERAL, Edinburgh; THE COMMITTEE OF THE MANCHESTER AND SALFORD SANITARY ASSOCIATION; Mr. T. M. STONE, Wimbledon; THE SECRETARY, DEVONSHIRE HOSPITAL, Buxton; Mr. DAVIES, Liverpool; THE EDITOR, BRITISH MEDICAL JOURNAL, London; THE SECRETARY, ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London.

BOOKS RECEIVED—

Aural Complications of Inflammatory Conditions of the Nose and Throat, by Beverley Robinson, M.D.—Report on the Derbyshire County Lunatic Asylum—On the Treatment of Spinal Curvatures, by H. Macnaughton Jones, M.D., &c.—Ambulance Handbook, by J. A. Raye, L.K. and Q.C.P.I., &c.—Transactions of the National Association for the Promotion of Social Science—On the Use of Alcohol in Hospitals—Lecture on the Isle of Man, by Alfred Haviland—Vivisection, by E. D. Girdlestone, B.A.—The Contagious Diseases Act—Sessional Proceedings of the National Association for the Promotion of Social Science—Hints on Sanitary Law, by G. F. Chambers, F.R.A.S.—Memoirs of Charles J. B. Williams, M.D., F.R.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynakologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—The Planet—Weekblad—El Ensayo Medico—Journal of Cutaneous and Venereal Diseases—Maryland Medical Journal—The Australian Medical Journal—Popular Science News—The Indian Medical Gazette—The Western Medical Reporter.

APPOINTMENTS FOR THE WEEK.

April 12. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

14. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

15. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 p.m.—The following Papers will be read:—Dr. Turner, "Cirrhosis of the Liver;" Dr. Cayley, "Abscess of the Brain;" Dr. Semple, "Carcinoma of the Larynx;" Mr. Lockwood, "A Stomach constricted in two places;" Dr. Hale White, "Hour-Glass Contraction of Stomach" (card); Dr. Sharkey, "Multiple Strictures of the Small Intestine;" Dr. Powell, "Duodenal Ulcer with Hepatic Abscess;" Dr. Turner, "Duodenal Ulcer" (card); Mr. Davies-Colley, "Congenital Tumour of Back;" Dr. Carrington, "Cancer of Gall Bladder" (card); Mr. Sutton, (1) "Dissection of Stump" (card), (2) "Separation of Epiphysis of Fibula" (card); Dr. Norman Dalton, "Enchondroma of Lung" (card); Mr. Lane, "Diphtheria of Larynx" (card).

16. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

18. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY OF LONDON.—Meeting. The following Papers will be read:—Dr. De Haviland Hall, "Sequel to a Case of Perichondritis of the Larynx;" Dr. Percy Kidd, "A Case of Tubercular Tumours of the Larynx;" Mr. Harrison Cripps, "Cases of Excision of the Rectum for Cancer;" Dr. Angel Money, "A Remarkable Case of Tubercular Meningitis."

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PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA, ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.,

President of the Epidemiological Society of London.

(*Concluded from page* 450.)

Febris Exanthematosa Orientalis, otherwise Beriberi Fever.[39]

MUCH was said about the contagiousness of this disease, but no evidence of contagion is given, beyond the frequent occurrence of several cases in one family—which, standing quite alone, is, of course, no valid proof of the agency of contagion—and one very suspicious case mentioned by Dr. Harvey. Dr. Chambers, who was one of my most esteemed pupils and house physicians, considered that this "new disease" was relapsing fever. He does not appear to have found support from any other observer. He shows that a tendency to relapse marked several of his cases; but I cannot think that his patients suffered from true relapsing fever. I think that he saw an exanthematous fever; but he appears to place his fever cases apart from those which, he considered, resembled beriberi.

This epidemic was observed at Dacca and Sylhet, and at Shillong in the Kasia hills.

There does not seem to have been any appearance of the disease in Calcutta after the hot weather of 1880.

Between November, 1878, and June of the following year a similar epidemic prevailed in Mauritius. It was stated to have caused 729 deaths. Dr. Lovell, the chief medical officer, sent a report on this disease, which he termed "acute anæmic dropsy," to the Calcutta Medical Society, in July, 1880. I have already spoken of the exanthem which generally characterised this malady. In the worst cases, there were hydropericardium, hydrothorax, and ascites. Signs of scorbutus are not mentioned. "Europeans were entirely exempt." "The patients, generally Indians, were very anæmic, the blood watery, with marked diminution of the red blood cells, and increase of leucocytes and granules." "The urine was seldom albuminous." Enlargement of the spleen was not found to be a feature of the disease. Opinions of medical men were divided regarding the contagiousness of this malady; the majority were opposed to the view of contagion.

[39] Read before the Medical Society of London, March 31st, 1884.

A report which appeared in the first volume of the *Madras Quarterly Medical Journal*, page 70, shows, that late in the year 1829, beriberi, which had previously been unknown in that locality, attacked the Madras sepoys at Singapore, while "*the convicts remained without a single patient with the complaint.*" True beriberi prevailed in the criminal prison at Singapore in 1875–76–78–79, and 80. *It did not spread among the community at large.* No European or native female prisoner suffered. In 1878, the death-rate was 16·20 per cent. of admissions, and rose to 20·63 in 1879. There is no mention of fever or eruption. Rheumatic pains and paraplegia were frequent symptoms. The great serous cavities, peritonæum, pleuræ, pericardium, were filled with serum. Scorbutic symptoms appeared in some cases. *The urine was scanty, high-coloured and albuminous.* In a leading article in the *Indian Medical Gazette*, for September, 1880, Dr. McLeod observed that "as regards symptoms and mortality, the Calcutta disease presented a sort of transition between the pure beriberi of Singapore, with rheumatic and paralytic phenomena and albuminous urine, and the acute dropsy of Mauritius, which presented many of the features of a contagious exanthem."

I must repeat that my own inference from the evidence is, that the "new disease," as it occurred in Bengal and Mauritius, was an exanthematous fever. Its mode of invasion, when epidemic, would alone declare beriberi to be a fever. No one who has studied the natural history of fever will believe that the epidemic disease which, as we have seen, invaded Lower Bengal in 1877, and Mauritius in the following year, was either paraplegia or scorbutus, or consider that it was renal anasarca.

First.—Beriberi regarded as Renal Anasarca.

In a valuable but very rare volume,[40] "The Proceedings of the Hyderabad Medical and Physical Society," Mr. J. L. Ranking published, in 1853, a series of reports, tending to show that the previously obscure disease, beriberi, depended mainly upon the existence of a form of *morbus Brightii*. Mr. Ranking said that his limited experience led him to adopt the opinion that beriberi is primarily and essentially a renal disease; that deterioration of the blood is caused by lesion of the kidney, and that the "numbness" staggering gait, or more confirmed paralysis of motion (pointing to affection of the spinal cord), the "irritable" condition of the heart, the endo- or pericardial "inflammation" [?] and effusion (which latter is generally the immediate cause of death) are secondary affections. He showed that, in sixteen cases of beriberi, the urine was more or less albuminous in eleven; in eight, the microscopic elements characteristic of kidney disease existed. Microscopical examination was made in these eight cases only; so that, in every case of well-marked beriberi which fell under Mr. Ranking's notice, the microscopic evidences of kidney disease were discovered when sought for. In nine, there was general anasarca; in one, the anasarca existed with ascites; in two, there was delirium; in one, coma; in fourteen, numbness without actual anæsthesia; in two, impaired sensibility with numbness; in six, there was more or less loss of motor power; in seven, symptoms of pericardial and endocardial affection; in five, signs of œdema of the lungs; in two, hepatitis; in two, nausea and vomiting; in two, diarrhœa. It was noticed by Malcolmson that there were certain points of resemblance between beriberi and *morbus Brightii*. This resemblance forced itself upon Mr. Ranking's attention before he had access to Mr. Malcolmson's work. Upon commencing the examination of the urine of all beriberi patients, it was found that, although the quantity excreted, the reaction, specific gravity, colour, &c., differed according to the stage and form of the affection, the microscope revealed the presence of blood-discs and epithelial scales. In two cases there were also tube casts, and mucous and organic globules. The urine was often coagulable by heat and nitric acid, though never to a high degree albuminous. He represented that, in the earlier stages of beriberi the state of the urine points only to simple congestion or sub-acute inflammation of the kidneys. He found it to have a deep red colour, owing partly to the admixture of blood, partly to concentration; a specific gravity at or somewhat above the natural standard. A deposit of lithic acid and lithate of ammonia sometimes occurred, and abundant and large crystals of lithic acid. These morbid conditions of the urine will, Mr. Ranking considered, be found to precede the anasarca, numbness, and other symptoms of spinal affection. Unless the state of renal congestion, or sub-acute inflammation, upon which it depends, can be overcome, the anasarca continues, effusion "into the spinal cord" [?] takes place, the heart becomes involved, and effusion into the pericardium and pulmonary œdema carry off the patient. The urine remains scanty, in such cases, to the end, or is even totally suppressed. In more chronic cases, or in individuals who have struggled through the acute stage, the urine was found to alter in character—it increased in quantity, but decreased in density—it seldom, however, reached the healthy standard even as to quantity—it acquired a pale opalescent colour—had an alkaline reaction, a specific gravity of 1,010, and coagulated more or less by nitric acid and heat. "Here," said the author, "we have all the characters of the urine of 'Bright's kidney.'" "The alkaline reaction is due doubtless to the existing lesion of the spinal cord which, although in itself a secondary affection, reacts upon the urinary organs, the mucous membrane of the bladder especially, causing an increased secretion of mucus, or even pus, and consequent alkalinity of the urine. The microscope still reveals blood-discs; a great abundance of epithelial scales with mucus or blood globules entangling crystals of triple phosphate, or, if any deposit occurs, it is made up of mono-basic or bi-basic phosphates, amorphous phosphate of lime and mucus."

Others who observed beriberi nearly at the same time, noticed the renal complication.

In the middle of August, 1852 (dates are self-evidently of great importance in the correlation of cases of beriberi, as showing agreement or difference in type in the same or in other epidemics of the disease), Dr. George Mackay[41] admitted to hospital, at Rangoon, a Madras sepoy, who died, in about 26 days after sickening, with typical symptoms of beriberi. "The urine presented a copious deposit of mucus, with altered blood-discs and crystals of the triple phosphate." Many other cases of a nature similar to this came under Dr. Mackay's notice during the same (second Burmese) war, but none in which the symptoms so nearly resembled those of beriberi. His attention in those cases was early directed to the state of the urinary organs. "Epithelial scales, altered blood-discs, crystals of the triple phosphate being almost invariably met with; in some cases oxalate of lime crystals, and in one or two tubular casts were observed."

The "Hyderabad Proceedings," in which Mr. Ranking's paper appeared, also published a case by Mr. Maillardet. Dr. Van Someren also discovered "casts of uriniferous tubes, epithelial scales, altered blood-discs and octohedral crystals of the oxalate of lime."

[40] I only know of one copy, possessed by my friend Dr. Waring, C.I.E. I gave extracts from its contents in the "Bibliographical Record," attached to No. 2 of the *Indian Annals of Medical Science*, in 1854.

[41] *Indian Annals of Medical Science*, No. 5, p. 349.

We have here descriptions, by three observers, of the conditions of the urine in (epidemic?) beriberi as the disease presented itself within a short space of time—apparently a period of a few months—on the continents of Madras and Burmah. Although the above facts, being published in the *Indian Annals of Medical Science*, must have come before many observers in India, I do not find that Ranking, Van Someren, Mackay, or any one else recorded other cases of albuminuria, cast desquamation, &c., in beriberi. Was this because, during that particular epidemic and that one only, the kidneys suffered nearly as they do in the cognate but very distinct (from epidemic acute beriberi) exanthematous fever scarlatina? At any rate, regarding beriberi as a fever of this genus, I am quite prepared to find that, when the exanthem is checked by the "chill," so frequently mentioned as a prominent exciting cause in this disease, albuminuria may occur. It is clear, however, that albuminuria was not a marked feature in the late Bengal and Mauritius epidemic, although it is to be regretted that none of the reports which I have seen take any notice of the microscopic condition of the urine.

It will have been noticed that in the Singapore outbreak, which commenced in 1875, "the urine was scanty, high-coloured, and albuminous."

Undoubtedly the incidence of beriberi is especially directed to those who are the subjects of renal disease. It has always been observed that a very considerable proportion of the victims of this disease are drunkards. Intemperate European soldiers are liable to this malady; their officers are far less so, although they have not always escaped. Christie says, in his report on beriberi: "I have remarked that a very great proportion of the patients seized with this disease were men accustomed to lead a sedentary and debauched life, such as tailors, shoemakers, &c., who, when working at their trade, are often excused the duty of the field, and by their double earnings are enabled to procure a larger quantity of spirits than the other men." He adds, "I have never met with an instance of this complaint in a woman, an officer, or a boy under twenty." I was told at Aden, about ten years ago, that European soldiers posted there, who are temperate, generally escape; but that, when a man becomes a sergeant, he is not unlikely to take to free-living, and then probably is attacked with beriberi. At the same time it is clear that, while beriberi sometimes resembles Bright's disease, it by no means always assumes that character. Certainly it is not produced by the ordinary causes of renal anasarca; and, if some of the cases of beriberi, such as those observed by Ranking, Mackay and others, may be designated as examples of this form of general anasarca, ordinary renal anasarca is in no sense beriberi. The paraplegic element of beriberi is not characteristic of common *morbus Brightii*.

Second.—Beriberi viewed in its Paraplegic aspect.

One of the leading sequelæ of beriberi being anasarcous and dropsical effusion into the areolar tissue and serous cavities, the occurrence of spinal paralysis, in various degrees, as one of its complications, is clearly accounted for. As I have shown, in describing the Bengal epidemic, the stiffness of the lower limbs is frequently due to the presence of hard œdema, not to spinal paralysis; but, in many cases of beriberi, distinct impairment of motor and sensory power in the lower limbs has been observed.

In an abstract of Malcolmson's prize essay on beriberi, Sir G. Ballingall says: — "In dissecting patients who have died of this disease, serous effusions, more or less extensive, into the cellular substance, as well as into the great cavities, would seem to be the more prominent appearances; and, in addition to this serous effusion, there often exist in the lower region of the spine, about the origin of the lumbar and sacral nerves, symptoms of congestion; and, in one very remarkable case, of which the details are given by Mr. Malcolmson with an illustrative engraving, an effusion of reddish coagulable lymph had taken place on the posterior surface of the theca, at the fourth dorsal vertebra, and the same in the region of the sacrum."

Although the form of chronic paraplegia, termed by Bontius and other old writers on the diseases of the East "barbiers," is, as shown by Henry Marshall, quite distinct from beriberi, it can hardly be doubted that much of that which was formerly regarded as barbiers was, in reality, beriberi with spinal paralysis.

Lathyrism, paralysis of the lower limbs caused by habitual feeding upon the *dâl* of the *Lathyrus Sativus*, prevails extensively in Upper and Central India, especially near Allahabad and in Upper Scinde. M. Proust has observed it in the Jurjura mountains of Algeria, and it is stated to be far from uncommon in France. A recent writer having stated that lathyrism and beriberi are identical diseases, M. Pierre Marie[42] has undertaken to prove that such is not the case. It appears to me not improbable that the writers have confused beriberi with barbiers. At p. 113 of the *Indian Annals of Medical Science*, No. 23, Dr. James Irving has contrasted the symptoms and other conditions of lathyrism and barbiers. I should have considered beriberi and lathyrism as little congeneric as Monmouth and Macedon—beriberi being a very acute disease, lathyrism, as it occurs in India, a chronic one. But, since the question has arisen, M. Marie's paper calls for notice from medical men working in those districts, far separated as they are, in which lathyrism and beriberi are most common; lathyrism prevailing far inland, beriberi occurring almost entirely within the influence of the sea breeze. It appears singular that, in giving long and minute descriptions of the conditions of the lower extremities in the contrasted diseases, M. Marie appears to have overlooked œdema in beriberi.

The loss of power in the lower limbs, so frequently noticed in beriberi, appears to need clear definition. In what cases is it dependent upon spinal lesion, and in what others is it due to hard œdema of the extremities and debility? With regard to the former cases, one point ought to be cleared. Sir Joseph Fayrer has suggested the probability that filarious disease may be in some way concerned in inducing beriberi.[43] A form of spinal paralysis in the horse, *kumree*, which prevails within the Madras area of beriberi, and in Eastern Bengal, has been ascribed by Twining and others[44] to the presence of entozoa in the cord. Do spinal lesions in beriberi ever arise from this cause?

Undoubtedly, although spinal paralysis is a recognised sequel of beriberi, it cannot be considered that beriberi is, in any sense, paraplegia.

Third.—Beriberi regarded as an expression of Scorbutic Cachexia.

Marked evidences of scorbutus are so often noticeable as prominent symptoms in cases of beriberi, that at least one of our best Indian observers has considered that beriberi is essentially a form of scurvy.

Wishing to give fair play to this, as well as to all the other leading theories upon the causation of beriberi, I may cite the following rather striking example of this coincidence, as observed by Tumeez Khan, in Calcutta, in 1878, and others which I find in

[42] *Progrès Médical*, No. 43. An abstract of this paper is given at p. 606, *Medical Times and Gazette*, vol. ii., for 1883.
[43] "Quain's Dictionary," p. 105.
[44] *Vide Calcutta Med. and Phys. Trans.*, vol. i.

the *India Journal of Medical Science*, vol. v., N. S., p. 75, as occurring *circa* 1839 on a passage from Java.

1839.	1878.
A Dutch barque arrived in the Madras Roads, from Java, on the 12th May, having left Malacca, where she lay only three or four days, all being well, on the 7th April. The crew were Javanese, who had made objections about coming to the Coromandel coast, as they said "many of their countrymen had died of a similar disease on former voyages."	A Mahomedan ship-captain of one of the Arab sailing vessels which ply between Calcutta and Jeddah, a native of some part of the Coromandel coast, his son, and a third member of his family —both said that they had returned hale and hearty from a trip to Jeddah, the third person had died previous to Tumeez Khan's visit.
"About twenty days before reaching Madras, many of the crew were seized with swellings and numbness of the legs and feet, but yet were able to perform their duty; when they arrived within 50 or 60 miles of the coast, and within the influence of the land winds, in three cases the symptoms became much aggravated, they were unable to walk, dyspnœa and pain in the præcordia supervened, and they died the day after the ship arrived.	A short time after their arrival in Calcutta "both were nearly simultaneously attacked with febrile symptoms, which lasted for a few days, and were followed by œdema of the lower limbs, to which succeeded cough, and dyspnœa" (the son had hæmoptysis). The "œdema extended up to the loins." When visited, they had "orthopnœa, palpitation and inability to lie down." It is not said whether the father and son died, but they probably did.
"They were a wretched looking set, and were very badly fed, their rations consisting only of rice, and of that a very limited quantity. The water was bad, and they were on very short allowance."	"Both had spongy and discoloured gums."

In connection with the above observations, all who are desirous to investigate the nature of beriberi ought to study Morehead's chapter on this disease. His data are mainly derived from histories of "beriberi as it occurred among the Lascar crew of the ship *Faize Allum*, in May, 1853, when in lat. 10° north, within sixteen days' sail of Bombay, and from an account of an outbreak of "epidemic ascites," or "peritonæal dropsy," in thirty of the crew of H.M.S. *Juno*, on her arrival at Sydney from a lengthened cruise among the islands of the Pacific, in January, 1856."

The native subjects, four cases of beriberi, from the ship *Faize Allum*, whom Morehead treated, were doubtless scorbutic; the men of the *Juno* were probably so. Morehead does not appear to have met with any other cases of beriberi. He considered that "beriberi, more particularly in its acute form, occurs usually in persons favourably circumstanced for the development of a scorbutic taint, and subsequently exposed to cold, dry or moist winds, or to lying on the ground wet with rain or dew." With the judicious circumspection, which characterises all his reasoning, he observes that to him "it seems that beriberi is a general dropsy, and that, in regard to each instance, the question ought to be—what is the pathology of this case of general dropsy?" He adds, "generally it will be found that a scorbutic diathesis and external cold or wet, are the determining conditions."[45] Dr. Peet adopts this view without qualification. He says, "When individuals who are scorbutic are exposed to cold and alternations of temperature, they are not unfrequently attacked with general dropsy. It has been customary to designate the disease now referred to as beriberi."[46] Here is, I think, another example of the common error of regarding as cause and effect two circumstances which are merely associated as frequent coincidences. It is to be borne in mind that beriberi is often epidemic, which scorbutus cannot possibly become. There was no beriberi among the scorbutic mariners of last century; and in many cases of sea scurvy, which I have treated, there was not the very slightest evidence of its existence. Beriberi occurs in some localities notorious for scurvy, as Aden; but it does not prevail in certain of those districts of Hindustan—as the province of Behar, and in Scinde—in which scurvy is extremely prevalent. Scorbutus, as we have already seen, occurs in Lower Bengal, but not so extensively as in some other Indian districts. The recent Bengal epidemic frequently attacked the scorbutic, but it was noticed that many of the sufferers from the epidemic were free from evidences of scorbutus. I think that, when we state the fact that wherever beriberi prevails, it especially selects the scurvied, we are free from the error of supposing that acute beriberi is an expression of scorbutic cachexia, although scorbutus should be looked for in all cases of beriberi, and be treated, when present, as a grave complication.

[45] *Op. cit.*, pp. 707-8.
[46] "Principles and Practice of Medicine," p. 570.

Fourth.—Is Beriberi, as some have considered, a form of Malarious Cachexia?

I think that this question must be answered in the negative. Beriberi prevails in localities, such as Aden and Mauritius, where the paludal poison does not abound in great intensity. Until 1877, the Delta of the Ganges, that hot-bed of marsh influence, was never visited by this pest as an epidemic, and has never generated endemic beriberi. I believe that, up to the time of my leaving Bengal, eight years ago, it was never suggested that beriberi could originate there. Considering that a vast number of sailors pass through the Calcutta hospitals, I think it noteworthy that only one not unquestionable case of this disease, in a half-caste seafaring-man, made its appearance in my wards. No one acquainted with the natural history of the marsh poison would, in studying the outbreaks of beriberi in Calcutta and Mauritius in 1877 and the following year, consider that there could have been any interchange of paludal influence between these two widely separated localities. Nevertheless, seeing how generally and how often gravely prevalent malarious cachexia is in most of the regions which beriberi visits, the necessity of searching for it, as a most serious complication, must never be overlooked. Few constitutional states can be regarded as more perilous than that of the multitudes of unfortunates who, being the subjects of the combined cachexiæ of marsh-poison and scorbutus, are attacked with beriberi.

I think that we are justified in concluding that beriberi is not a malarial fever, but that the victims of malarious cachexia are especially liable to suffer from its attacks.

Treatment.—If I am right in the firm belief which I hold that true beriberi is an exanthematous fever which, although wholly *sui generis*, pursues a course which, in more than one of its leading actions, much resembles that of scarlatina, it is evident that here our first object should be, as it is in scarlatina, to endeavour to see each case *ab initio*, and to prevent the occurrence of renal and other visceral mischief, anasarca and dropsical effusions into the serous cavities. If it could be my duty to have charge of military and jail hospitals within the endemic area of beriberi, every European soldier, sepoy, and prisoner, would be warned to seek relief from my assistants *immediately upon being attacked with even the very slightest symptom of fever.* I would myself examine all fever cases early, within twelve hours if possible, carefully searching for the exanthem on the lighter skins, and considering that, if I frequently discovered it there, its presence might be suspected in those of darker complexion. Then the chief indications would be:—To admit all fever cases as in-patients; to avoid the occurrence of that CHILL so frequently assigned as the cause of general anasarca in beriberi; to promote healthy cutaneous action and to subdue fever; to discover and deal with pre-existing renal and other visceral disease, and with malarial and scorbutic cachexia. After remaining for two or three days under observation, the cases of ordinary intermittent fever would explain themselves, and would then demand

less close attention. When patients do not seek relief until general anasarca has become established and, being too weak to go about, are desirous to come to the hospital as a refuge, the same principles of treatment ought to guide us. With the deepest respect for the memory of a great Indian physician, I cannot agree in the validity of his maxim, guarded as it is, "remove the dropsy by purgatives or diuretics, being guided to the use of the one or the other by the state of the pulse." I would no more give direct diuretics in the anasarca of beriberi than I would in that of scarlatina. My great effort would be to obviate renal congestion in all possible ways, and to make the work of the kidneys as easy as possible. I would not give anything more drastic than the mildest laxatives in these cases, liable as they are to end fatally by diarrhœa or dysentery. If we can only remove the other complications of beriberi, the anasarca will undoubtedly disappear as constitutional power becomes re-established. No purgative or diuretic will, except by promoting exhaustion, touch a pericardial, arachnoid or pleural effusion which threatens life.

I believe that, fifty years hence, the futile and destructive practice of endeavouring to remove dropsical effusions by the use of drastics and direct diuretics will be viewed as one of the most barbarous therapeutic errors of the present century.

I think that the whole subject of acute and chronic beriberi, especially as they occur in the Madras Presidency and in Ceylon, ought to be thoroughly reinvestigated by sound pathologists. Work out the subject of beriberi, is one of the best pieces of advice that can be given to a young physician entering upon a career in the Madras Presidency.

The field of observation is large. In 1881, there were 102 cases of beriberi, with twenty deaths, among the native troops in the Madras Presidency, in a strength of 30,394. No cases occurred in the Bengal and Bombay Presidencies.

Especial care should be taken to ascertain the precise nature of what is termed the "chronic" form of beriberi. Are these cases of malarious and scorbutic cachexia, not allied to true beriberi, or are they examples of repeated attacks of beriberi and consequent ill-health? Christie observed that, "men who have once had the complaint are the most subject to it in future." In the epidemic and acute form, light is needed with regard to the precise type of the fever, the character of the exanthem, the range of temperature, the chemical and microscopical conditions of the urine, &c. All observers have noticed that, although the œdema of the lower limbs is hard, the serous effusions, arachnoid, pericardial, pleural, and peritonæal, the pressure of which tends to cause death in beriberi, are distinctly *non-inflammatory*. A little sifting would clear this question, enabling us to judge whether we ought or ought not to draw off the fluid from the pleuræ and pericardium, and with what prospect of success.

ABSTRACT OF CLINICAL LECTURE ON IMPASSABLE STRICTURE OF THE URETHRA.[1]

By EDMUND OWEN, F.R.C.S.,
Surgeon to the Hospital.

GENTLEMEN,—By the term "impassable," as applied to a urethral stricture, one expresses the fact that though urine may manage to escape by the meatus, the surgeon is unable, after careful and prolonged attempts, to pass an instrument through it into the bladder. Most strictures of the worst inveteracy permit of a leakage from the distended bladder an overflow; indeed, whenever the surgeon hear, that an adult is the subject of urinary dribbling — incontinence the patient will call it — he may expect to find the viscus full and running over. (In childhood, however, matters are different.) It is theorised that if the urine can pass outwards the surgeon ought to be able to introduce a slender flexible catheter into the bladder, or at least a filiform bougie, which latter instrument, by lying in the narrowed passage, would determine its continuous dilatation. Sometimes such a mastery can be obtained over an obstinate stricture. There still remains the fact, however, that some strictures are impassable; such form the subject of the present lecture.

The usual history of these cases of impassable organic stricture is this:—Many years ago—five, ten, twenty—the patient was the subject of a gonorrhœa, which, he fancies, was never completely cured, and which eventually tailed off into a gleet, but at times seemed quite to cease. Or it may be that the first attack got apparently well, but that at almost every subsequent exposure to infection a fresh attack was contracted, the fact being that the original gonorrhœa was never completely cured. The occasional passage of a full-sized bougie then would have made him sound and well, but now after years of annoyance the ever-diminishing stream of urine has ceased, and the patient is in the agony of an over-distended bladder, which the surgeon is unable to relieve by a catheter. The full bladder is forming a rounded tumour, which is dull upon percussion, and which bulges forward between pubes and umbilicus, and backwards towards the rectum, where it can be felt by the finger *per anum*. To give such a one full doses of opium to allay his distressing symptoms is but to hide them for a time without removing their cause, and so the risk of the occurrence of rupture of the urethra behind the stricture, with extravasation of urine, will be increased.

It may be that considerable time has already been expended in futile attempts at relieving the distension by hot baths. The patient is in agony, and bathed in perspiration, and immediate relief is demanded.

Years ago, such a case would most likely have been relieved by a puncture of the bladder through the rectum, by such a canula and trocar as I hold in my hand. The base of the bladder would have been perforated above the prostate where it is devoid of serous covering. Possibly, after the canula had been retained in the bladder for a day or two, and matters had quieted down, the surgeon might have succeeded in passing a small catheter *per urethram*, and treated the stricture by gradual or continuous dilatation. The employment of this instrument was not without its objections and dangers, and it has now given place to the aspirator; with it the urine can be drawn off at once and without much risk. The rounded tumour must be boldly attacked by the fine, hollow needle through the linea alba, but care must be taken that the needle passes really into the bladder, and is not allowed to run down between the front of the bladder and the abdominal wall. I have seen this happen. Of course, the needle is withdrawn after the operation, to be re-introduced on subsequent occasions as often as may be necessary. And so a catheter may, after due rest, be made to find its way into the bladder. But if, after all this, the stricture (which is felt hard and cartilaginous by the perinæum) remain obdurate, or if the presence of perinæal fistulæ demands a cutting operation, the patient must be forthwith prepared for the ordeal, which will be for his constitution a trying one, on account of the long persistence of the stricture being almost necessarily associated with organic or functional renal disease.

The bowels having, if practicable, been cleared by a full dose of castor-oil, or by the administration of an

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[1] Delivered at St. Mary's Hospital, March 19th, 1884.

enema, the patient is to be anæsthetised, and a final attempt made to pass a fine-grooved staff into the bladder, which shall be a guide in the division of the stricture. This failing, the patient is to be placed in the lithotomy position, the knees being held symmetrically by two able assistants, one of them also holding the scrotum up out of the way. Then the left index finger of the surgeon, as he sits at the patient's breech, is to feel and rest against the apex of the prostate, and the point of a large scalpel is to be thrust through the perinæum, at about an inch in front of the anus, so that the point transfixes the triangular ligament and opens the dilated urethra just in front of the apex of the prostate. Then the blade of the knife is carried boldly forward through the hard and thickened tissues about the perinæal urethra, and into the base of the scrotum. This part of the cutting being thoroughly done in the one sweep; a large steel bougie with a bulbous end is to be passed through the penile urethra, and, along the depths of the wound into the bladder, and after its withdrawal, a full-sized metal catheter, No. 13, 14 or 15 (English gage), is to be introduced and the bladder evacuated, and, if necessary, washed with some acidulated solution. Bleeding having ceased—and, as a rule, it is not serious—the patient is to be returned to bed, wrapped in a blanket, with hot bottles beside him. He is to be stimulated with ammonia and brandy, if necessary. If opium be prescribed, due heed must be given to the crippled condition of the kidneys. No catheter is to be retained, even for an hour, in his bladder; if the perinæal section has been properly performed there will be no difficulty in introducing a No. 13 or 14 on the third day, and that without the need of ether or chloroform. Severe rigors are apt to follow, but, as a rule, the patients steadily improve from shortly after the operation, the perinæal wound granulates up; the catheter is passed every second or third day, and eventually the patient, having learned to pass it for himself, becomes master of the situation.

In this account there may be nothing new; but there are one or two points in connection with the operation and treatment to which I would like specially to refer as worthy of attention. In operating, no heed should be given to the median raphé, as it is not a trustworthy landmark; inflammatory adhesions or abscesses may have shifted it considerably to one side of the median line. The patient being held straight and squared upon the table the landmarks are the apex of the prostate as found by the finger in the rectum, and the middle line of the body, as traced by the eye from the anus over the pubes and up towards the umbilicus. The incision made forwards from in front of the anus and into the base of the scrotum should be bold and free. The catheter No. 14 or 15 should then be passed. When I was a student a surgeon would have shuddered at the thought of attempting to pass such a catheter, but since Otis has shown how large an instrument the normal urethra will receive without damage, it is evidently expedient that the renewed portion of the canal should be restored upon the largest scale. Fifteen or twenty years ago the passing of No. 9 would have satisfied the operator, and this instrument would have been tied in the bladder for 24 or 48 hours. At the present day no instrument is tied in, the surgeon relying on his being able to pass a No. 14 or 13 on the third day. If I pass No. 15 at the operation, I am content with No. 14 on the third day; if No. 14 at the operation, then No. 13 on third day. Then, as the wound begins to close, the patient is taught to pass 13 or 12 for himself. When he can do this easily and fearlessly he is allowed to go home, being made thoroughly to understand that his future happiness depends upon the systematic introduction of the instrument at least once a week. My advice to such a one is that he become a water-drinker; alcohol and its associations are ruin to a man with urethral stricture, even when he thinks that he has the stricture well under control.

The last point for remark is this, which I will put in the form of a question. When through the site of an impassable stricture, a urethra has been restored of sufficient size to admit the passage of a No. 13 catheter, of what material have the walls of the new channel been composed? It matters not what the operation was, Wheelhouse's, or the ordinary perinæal section as described above; the question applies with equal force if the hard tissues have been divided on a grooved staff passed through a stricture. If No. 1 or 2 only could pass before the external urethrotomy, and 12 or 13 is passed, subsequently how was the new canal made? The answer is that the canal must be established out of the peri-urethral fibrous tissues, which readily yield themselves for the purpose. Eventually the new canal becomes lined and velvety, and as little inclined to complete obliteration, as the mucous off-shoot of an anal fistula.

Case I.—G. B., aged 51, traveller, August, 1881. Gonorrhœa, twenty years ago; some months since a surgeon tried to pass a small catheter, so much bleeding followed, that his room "looked like a slaughter-house," then 40 hours complete retention; has lately passed "matter." Several colleagues tried to introduce a catheter. Perinæal section, No. 13; 40 ounces of purulent urine withdrawn, death next day from suppression of urine.

Autopsy.—Kidney pale, capsule strips off easily, cortex slightly injected, no emboli anywhere.

Case II.—W. L., November, 1881. Old stricture, several attacks of retention, urinary extravasation, perinæal section, No. 13; made complete recovery, learnt to pass No. 12.

Case III.—W. G., aged 38, painter, November, 1882. Traumatic stricture in 1868, for last six years all urine has been passed by fistula half-inch in front of anus. Admitted with complete retention, by aspiration 40 ounces urine removed, then urine appeared again through fistula, on eighth day perinæal section, rigors, sixth week discharged, passing No. 12.

Case IV.—W. T., aged 63, shoemaker, January, 1883 Gonorrhœa and gleet for past three and a half years, one year ago perinæal abscess, rigors after futile attempts at catheterisation, perinæal section, No. 13 passed. Temperature 105·8, rigor, cystitis, bladder irrigated. Last note February 11th, "No. 13 passed," patient declined further treatment.

Case V.—H. M., aged 41, stoker, September 14th, 1882. Gonorrhœa twenty years ago, four or five years ago soft catheter was passed, stricture increasing, ten days rest in bed, urine alkaline, patient uncomfortable, no catheter passed, perinæal section, No. 13; bladder irrigated; eighth week patient went home, having learned to pass No. 12.

Case VI.—J. C., aged 43, labourer, March, 1883. Second attack of gonorrhœa in 1871, lasting two months, many unsuccessful attempts to pass catheter during month's rest in hospital; rigors, perinæal section, eventually discharged, passing No. 14 easily.

Case VII.—W. S., smith, January, 1883. Gonorrhœa twelve years ago, followed by gleet and stricture; had been out-patient; two weeks in hospital, temperature rose to 104°, very ill, shiverings, diarrhœa, perinæal abscess; perinæal section, No. 13 passed; much better, then chronic pyæmia, discharged convalescent, and passing No. 13.

Case VIII.—W. C., aged 33, sailor, March, 1883. Ten years ago gonorrhœa, which lasted indefinite time. Eight years ago admitted to St. Bartholomew's Hospital for retention, but no catheter could be passed, water came away in hot bath. Within eight months perinæal abscess, now closed, retention, aspiration, perinæal

section, No. 15; rigor; discharged convalescent, passing No. 14.

Case IX.—W. N., aged 54, May, 1883. Stricture coming on since gonorrhœa 28 years ago, worse within last three years; after three weeks in hospital, stricture unyielding; perinæal section, No. 15, discharged convalescent, passing No. 12.

Case X.—T. S., aged 58, labourer, February, 1884. Gonorrhœa 24 years ago, and six months after beginning of attack, was told by a surgeon that he had a stricture. Perinæal fistulæ, tissues as hard as cartilage, bladder bulging to umbilicus, and "not been emptied for years," urine albuminous and purulent. Perinæal section, No. 14; 40 ounces smoky urine withdrawn, up and convalescent, No. 13 passes easily; still under treatment. (This man was lately in a provincial hospital, no instrument could be passed, and he was sent home with bladder engorgement unrelieved.)

Case XI.—T. H., aged 51. "May have had gonorrhœa years ago when in Royal Artillery;" stricture six or seven years, perinæal fistulæ, tissues very hard. Perinæal section, February 29th, 1884; now convalescent, but under treatment, house surgeon passes No. 14 easily; patient is to be taught the art, and to go home.

UNIQUE CASE OF CONSERVATIVE SURGERY.

By WM. JAS. SPENCE, L.R.C.P., &c.,
House Surgeon, Bradford Infirmary.

Sacrificing parts for the sake of making neat-looking flaps, or in order that recognised operations may be performed, is, in my opinion, most unjustifiable. Only parts injured beyond repair should be removed, unless the result by so doing is likely to impair the usefulness of the remainder. An unseemly stump, if useful in the slightest degree, is better than none at all. When the parts are left to granulate and heal—providing there is a covering of viable tissue—the result is seldom or never disappointing, Dame Nature does her work well.

In no part of the body is conservative surgery of so much importance as in the hand. Its extreme usefulness renders the utmost caution necessary in removing parts of it.

The principle contained in the above remarks led me to attempt to save the thumb in the following case:—

Annie B., aged 18, a weaver, was admitted to the Bradford Infirmary under Mr. Meade, on January 18th, 1884, for injury to right hand, caused by the cog-wheels of some machinery she was attempting to stop. On admission I found the whole of the hand to the ulnar side of an oblique line, extending from the metacarpo-phalangeal joint of the index finger to the middle of the carpus, reduced to a pulp; the metacarpal bone of the index finger was also irreparably injured. In fact, only the thumb with the scaphoid, trapezium, and trapezoid bones of the carpus remained uninjured.

I was at first undecided what to do. I could amputate at the wrist-joint, by taking an external flap from the soft parts covering the metacarpal bone of the thumb—an operation described by Dr. Dubrueil, in his work on "Operative Surgery." This would make a neat flap and a seemly looking stump, but the uninjured thumb would be sacrificed. Secondly, I could leave the three uninjured carpal bones with the thumb attached to granulate and heal over, but this, with the other four carpal bones away, would leave a flail-like appendage of little or no use, and only in the way.

With reference to leaving the whole or part of the carpus, Dr. Bell, in his "Manual of Surgical Operations," has the following:—"In cases of injury, where the carpus is opened, and the hand irreparably destroyed, the question arises, Where ought the amputation to be performed? To this we answer, that there appears no conceivable advantage to be gained *by leaving all or any of the carpal bones.* If successful, it would result only in the retention of a flapping joint, useless from there being no tendons to act upon it, except the tendon of the flexor carpi ulnaris. . . . ." (The italics are my own.) I was reluctant to sacrifice the thumb, and adopted the following course to retain it. I removed the remaining uninjured bones of the carpus, and the whole of the injured metacarpal bones, leaving only the thumb and its metacarpal bone. I next brought the articular surface of the proximal end of the metacarpal bone into contact with the articular surface of the radius. The soft parts surrounding the thumb formed a good covering for the ends of the ulnar and radius when united by sutures with the uninjured soft parts of the forearm. The thumb was kept in position by an interrupted splint. I was very doubtful at first whether a useful attachment would result, but I reasoned that, if unsuccessful, the thumb could always be removed, later on. The parts healed kindly, and the patient, after some five weeks stay in the hospital, was discharged cured. At first there was very slight movement of the thumb, but this has gradually improved and will, in time, I have no doubt, be considerable. The patient tells me she finds it very useful, being of great assistance in fastening her clothes, &c.

ON THE ÆTIOLOGY AND PATHOLOGY OF CHOLERA.[1]

By GEORGE GULLIVER, M.B. Oxon., M.R.C.P.,
Assistant Physician to St. Thomas's Hospital.

Dr. Gulliver said that though the mode of origin and propagation of cholera had been raised during the debate on Sir W. Guyer Hunter's Report, it was in reality a side issue, that paper being concerned only in showing that the disease was not imported into Egypt; the story of its having been so imported having no foundation in fact, and the disease being endemic in the country at a period long antecedent to the outbreak. At the request of the President he had brought forward a few of the facts bearing on the ætiology of cholera generally, without special reference to Egypt.

He thought that few would deny that cholera is a specific disease; probably no great number would object to its being called a specific febrile disease. The ordinary symptoms and pathological appearances necessary to complete the definition were not dwelt upon, as being well known to all. The value of a knowledge of the anomalous and latent cases in investigating the ætiology of specific diseases was then dwelt upon, and it was held to be a great cause for regret that we knew so little of such cases in the case of cholera, the reason for this being obvious. The consequence was that our knowledge of the ætiology of cholera was in a very much more backward condition than in the case of other specific diseases.

Assuming that cholera is a specific disease, he had no hesitation in saying that it depended on a specific poison which entered the body from without. The

[1] Abstract of a paper read before the Epidemiological Society, March 12th, 1884.

principal views on the mode of propagation of the disease were then enumerated :—Firstly, that it is contagious; secondly, that it is never contagious, and that the poison is generated and propagated independently of man ; thirdly, Pettenkofer's belief that it is contained in the excreta, but requires the soil to act as an intermediary host before re-entering the body of man; and fourthly, certain views less definite than the foregoing. Dr. Gulliver then insisted on the great importance of the predisposing and exciting causes of the disease, so great that we might almost be in danger of mistaking them for the specific poison itself. Probably the *rôle* played by them was without parallel in the history of specific diseases in which the poison enters the body from without. A comparison was made with what takes place in gout, where the exciting causes play such an important part in rousing into activity the poison latent in the blood, the difference being that in the case of cholera, the poison was not in the blood but in the surroundings, only wanting a predisposing or exciting cause to enable it to enter the system. The question of a definite particular contagium was then dwelt upon, in entering upon the discussion of the first view, which holds that the poison is communicated from man to man. For the present it was thought that we were not in a position to say that this had been demonstrated, but it was pointed out that an apparent apathy exists in the search after similar organisms in enteric fever, the reason being that the contagious nature of that disease was firmly established apart from the demonstration of any organism. Unsanitary conditions had performed for us many experiments on human beings, and it remained to be asked, whether they had not done so in the case of cholera also. It was held that they had done so, and the well-known outbreaks in Broad Street and at Theydon Bois, and other facts in relation to its spread in Europe and to America, were advanced as evidence, it being pointed out that one positive fact is worth a great many negatives.

The second hypothesis, which denies the propagation of the disease from man to man, was then passed in review, and it was pointed out that those who hold it seem to regard the poison as of an atmospheric and telluric nature, some of them apparently claiming for it an affinity with the malarial poison. That no such relation exists was insisted on, inasmuch as the one is the type of an epidemic and the other of an endemic poison. The subject of an "epidemic constitution" was then discussed, and it was freely admitted that there are cosmic conditions which at times greatly modify the character of epidemics, but this is just as true of epidemics of diseases which are virulently contagious, such as small-pox, as of those which are doubtfully so. It was further shown that no hypothesis, except that of an epidemic constitution, would account for the spread of small-pox in 1870-73 throughout Europe. No doubt such conditions played a very important part in the spread of cholera, which being admitted, prevented the writer from believing that the theory of its spread by contagion was inadequate. He thought that the difficulties in explaining outbreaks in the East arose largely from the simplicity of the manner in which the natives lived, the complexity of the problem, which presented itself to the sanitary investigator, increasing in exact ratio with the primitiveness of the customs prevailing. For this reason our knowledge of the ætiology of enteric fever would probably be still on an unsatisfactory footing if it rested on observations made in Eastern countries only.

In conclusion, the author briefly referred to the Egyptian outbreak, pointing out that, though it afforded no conclusive evidence on the question to be discussed, yet such evidence as it did afford by no means weakened the opinion that cholera was a contagious disease.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GLASGOW OPHTHALMIC INSTITUTION.

CASE OF ACUTE DELIRIUM CAUSED BY ONYX AND HYPOPION IN BOTH EYES, THE RESULT OF AN EXPLOSION—CURED BY AN OPERATION.

By J. R. WOLFE, M.D., F.R.C.S.E.,
Surgeon to the Glasgow Ophthalmic Institution, and Lecturer on Ophthalmology in Anderson's College.

In the *Practitioner* of January, 1884, the writer reported the case of Peter Campbell, quarryman, in which he transplanted conjunctiva from the rabbit for the cure of symblepharon of the left eye and formed a new eyelid on the right eye nine years ago, by transference of a skin-flap from the arm. The injury was caused by an explosion of gunpowder in blasting rocks. His brother Archibald, aged 35, was working in the same quarry and met with a similar accident on January 14th, 1884. When he was engaged in blasting a rock about thirty feet above the level of the ground, an explosion took place, injuring his face, eyelids, and both eyes. The following day he was sent by steamer to Glasgow, and arrived at the Ophthalmic Institution on the 17th. On admission, both eyes, face, and forehead were covered with powder and *débris* from the rock and the eyelids were swollen and tense. The conjunctival sacs and corneæ having been cleaned from the powder and *débris*, and atropinised castor oil applied, the patient was put to bed. The following day the swelling of the lids was found to be on the increase ; they were stiff and hard, had a charred look, could be raised with difficulty, and only by means of the elevators. Two days after admission the patient began to exhibit brain symptoms. He suffered from insomnia, with occasional delirium ; the pulse was quick, temperature 102°, the tongue was brown and parched, there was complete loss of appetite. On the following day the delirium increased ; there was constant spitting, picking of the bedclothes, and tearing his shirt. So restless and excited was he, that two men were constantly employed in keeping him down in bed. There was no ground for the idea of *delirium potatorum*, as the man had been an abstainer for ten years. The temperature had risen to 105°, the pulse could not be counted because of the patient's extreme restlessness. The swelling of the eyelids continued to increase, and was attended with a flow of tears and muco-pus. Every attempt to examine the interior of the eyes proved fruitless, and all the attention was concentrated, and the treatment directed, towards the general condition, which was considered rather precarious. He was treated first with morphia injections, then with bromide of potassium, and ice applied to the head, without the slightest effect, but, if anything, rather aggravation of the symptoms. A consultation was held with Dr. Cumming, who considered that there was considerable cerebral mischief, which was very likely caused by the accident ; and it was thought necessary to send the patient away to a general hospital. At the same time it was thought advisable, before sending him away, to examine the condition of the eyes, and to do what was necessary for them, that, in case he recovered, which appeared very doubtful, his eyes should not be completely lost. For this purpose he was put under chloroform and the lids lifted by elevators, when the right eye was found to be

suffering from a large corneal abscess and purulent infiltration, the sclerotic being marked by powder and *débris*. The aqueous chamber of the right eye was infiltrated with pus which obscured the pupil.

I punctured both corneæ and let out the pus, both eyes were very tense, and so hard that the lance could scarcely pierce them. The patient was ordered to be conveyed to the Western Infirmary as soon as he came out of the chloroform. To my great astonishment, by the time that he reached the Infirmary, his delirium had entirely disappeared as if by magic; and he spoke so sensibly to the medical officers of that institution, that, notwithstanding the medical certificate, they declined to consider it as a case of brain affection and refused him admission. Indeed, the patient at once began to improve in his general health. There can be no doubt, therefore, that the delirium was owing entirely to the process of suppuration going on in the eyes, and as soon as the pus was evacuated, the brain returned to its normal condition and function. He remained, however, perfectly oblivious of all that had taken place between the 17th and the 22nd, that period was a perfect blank to him. He made an uninterrupted recovery. The right eye suppurated; but the left recovered with a slight corneal opacity.

DENBIGHSHIRE INFIRMARY.

SURGICAL CASES.

By T. HAMMOND WILLIAMS, L.R.C.P., &c.,
Resident Medical Officer.

Extraction of a large Salivary Calculus without Incision of Duct.

An exceptional example of a large salivary calculus came under my notice, which is perhaps worthy of record.

H. J., aged 48, an intelligent man, gave the history of a swelling in the submaxillary region of three months' duration. As the gland enlarged, it became very painful, so much so that any movement of his tongue and even deglutition caused severe pain. The pain was most acute during mastication, but subsided when the process was over. On examination, I found the submaxillary gland enlarged, and painful on pressure. The opposite gland was also hypertrophied, though the patient did not complain of it, neither had he detected any fulness in its region. On applying one finger under the tongue, and another beneath the jaw, a hard lump was detected which, on pressure, gave a feeling of crepitus. There was no appearance of a cyst, and the submaxillary duct was empty. With manipulation the obstructing body, which proved to be a calculus, was found to be movable, and by a little daily pressure continued for a fortnight, it was gradually squeezed towards the mouth of the duct at the side of the frænum linguæ; ultimately after dilating the duct by means of a suitable forceps, the calculus was extracted in two pieces; its end having been broken off, probably when examining the gland, which accounts for the crepitus that was felt. The calculus was found to be oval in shape, one inch exactly in length, and three-quarters of an inch in circumference, and weighed eighteen grains.

In about a week the affected gland had diminished much in size, and the opposite one appeared to have regained its normal condition. The duct still remains thick, its opening gapes, and its canal is the size of a crow-quill. The patient now only complains of stiffness during mastication.

Remarks.—The gland opposite to the affected one, was evidently in a state of compensatory hypertrophy, which soon disappeared after the removal of the calculus. The patient stated that he had been treated for neuralgia, and various other complaints, and the case shows the importance of careful digital examination within the mouth, as well as under the jaw. No ranula was present, which is now known not to be due to any obstruction of a salivary duct, but to obstruction of mucous glands situated beneath the tongue.

Partial Dislocation of Bones of Forearm laterally.

A strong boy, aged 12, came lately under my care, who gave a history of having fallen from a wall on his side, with his arm twisted underneath him. On examining his elbow-joint, there appeared to the eye some deformity, and on measurement, the breadth and circumference of the joint were greatly increased, as compared with the opposite healthy joint.

The forearm was in a state of semi-flexion, and fully supinated. Motion in the joint was impeded, and excruciating pain was complained of in the course of the ulnar nerve.

The nature of the accident was ascertained by the circumstance of the great increase of the space betwixt the prominence of the olecranon, and internal condyle of the humerus. In addition, the cup-shaped head of the radius was found to be resting on the back and external border of the external condyle. A depression was detected just in front of the tip of the external condyle at the superior and outer part of the forearm. The external condyle was made out with difficulty, but the inner condyle presented itself as a marked prominence. When the patient was fully under the influence of chloroform, the sigmoid cavity of the ulna was found articulating with that part of the articular surface of humerus, appropriated to the head of the radius. The articular surface of the ulna apparently had passed over the prominent part of the trochlear surface of the humerus, caused, no doubt, by lateral force. Rotation of the wrist was limited and painful, and the forearm could not be further flexed.

Reduction, under chloroform, was easily done by manipulation, and the limb afterwards placed on an angular splint, with an elastic bandage. The great extent of the articular surfaces in their transverse direction, the reciprocal union of their inequalities, and especially the strength of the ligaments and muscles, give great strength to the articulation, and render it impossible to effect, by any violence, a complete dislocation laterally, unless compound. Partial luxations of both bones outwards are not common, and are much less frequent than the backward dislocation.

Chronic Mercurial Poisoning.—Two cases are reported from Nüremberg (*Berliner Klinische Wochenschrift*, No. 53, 1883) of chronic mercurial poisoning due to a simple and perhaps hitherto unrecognised cause. Amongst the artisans especially liable to the affection, mirror manufacturers have always held a foremost place, but the noxious properties of mirrors have been supposed to cease with the completion of the silvering process. In these cases, reported by Dr. Neukirch, all the well-recognised symptoms of quicksilver poisoning were present, and further, the presence of mercury in the urine was clearly established by chemical analysis. Every possible source for the poison was investigated without result, until an examination of the sleeping apartments disclosed the presence of some old mirrors in which the silvering amalgam had become soft and liquefied, and from which vaporisation of the mercury had evidently been slowly progressing. Removal of these mirrors was in both instances followed by complete recovery.

Medical Times and Gazette.

SATURDAY, APRIL 19, 1884.

But for the great function still in process at Edinburgh, the week has been singularly barren in events of medical interest. It is not every day, however, that a big University celebrates a centenary, and happening, as it does, in Easter week, the Edinburgh celebration is attracting the full attention that it deserves. The custom of holding anniversaries on the slightest pretext is not altogether an innovation—for an innovation it is, in this country at all events—which can be regarded with satisfaction. Such celebrations are often a sign of weakness rather than of strength, and are greedily seized upon, by comparatively modern and but moderately successful institutions, to advertise to the world that they have a history, if nothing else, to recommend them. Such ancient foundations as, say, the University of Oxford and Westminster Abbey, if they wished to celebrate a centenary, would have some difficulty in fixing upon what year in the century to hold it. But if ever a centenary was justifiable, it is so in the case of the University of Edinburgh, which, though but a youngster compared with our older foundations on this side of the border, has had such a remarkable career, has so influenced education throughout the world, has so attracted the love and respect of its *alumni*, and is altogether so flourishing and successful, as to stand in need of no advertisement. Her history was inversely typified in the quaint procession of students, who flung their torches together to form one monster bonfire. She has been the glowing fire at which an unending procession of students have kindled their torches, and borne them burning to the uttermost ends of the earth.

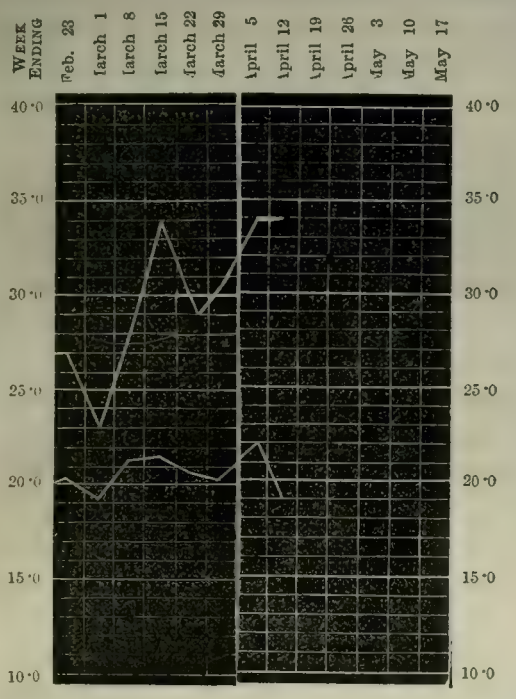
A very thin attendance of members was the not unnatural result of endeavouring to get the Pathological Society to work on Easter Tuesday. The subjects provided for the evening's entertainment were quite up to the average in interest, but an air of languor pervaded the meeting, and was not dispelled by any of the exhibits. The first specimen was one of biliary cirrhosis, by Dr. Turner, in respect of which Dr. Goodhart in vain tried to get an expression of opinion out of the members as to the reality of the existence of this special form of cirrhosis. Dr. Cayley read notes of a case of abscess of the brain, of interest from the point of view of cerebral localisation; and the field of nervous diseases was further illustrated by Dr. Carrington with some cases of cerebro-spinal meningitis. Dr. Tivy related a case of primary cancer of the liver, and Mr. Davies-Colley showed a somewhat rare specimen of congenital tumour of the back. There were a large number of card specimens on view.

In a speech which must be admitted by all to be marked by great moderation, Dr. Rabagliati pointed out, at the meeting of Elementary Teachers at Leeds on Wednesday last, what he believed to be the effects of the present educational system on the physical condition of children. After premising that the tendency of Mr. Forster's Act had been on the whole beneficial, he proceeded to enquire if it had done all the good it might have, and if it had had any results of a hurtful nature. One of the most important and interesting facts which is brought out with great clearness in his paper, is that relating to the mortality from brain disease amongst children at what may be called the school age, *i.e.*, from five to fifteen. During the first ten years that the Act was in operation as compared with the preceding ten years, the general mortality at the above age was reduced by twenty per cent., while the mortality from brain disease remained stationary, and on comparing this group of children with those under five years of age, it appears that since the introduction of the Act the mortality from non-nervous diseases has decreased by one-fifth, whilst that from nervous diseases has relatively increased by one-sixth. This increase was not to be attributed to the greater worry and bustle of modern life, which, contrary to what might have been expected, had hardly produced any effect on the general mortality of adults, nor could it be said that children inherited a greater proclivity to nervous diseases than formerly, as the mortality from this cause in children under five years has diminished rather than increased during the period under consideration. Of the other points dealt with by the author of the paper we cannot now speak, but he may rest assured that he has done good service by his thoughtful and impartial address.

A question of some importance is to be decided in Convocation of Oxford University on Tuesday week, the 29th instant. The statute, which proposes to admit women to some of the Honour Examinations for men, will be considered on that day, and it is said that strenuous opposition will be offered to its adoption. Hitherto the University has examined women through its delegates for local examinations, who have issued certificates to successful candidates. It is found, however, that these certificates, though constituting evidence of high proficiency in the subjects of examination, cannot compare for a moment with the Honours which Cambridge grants, for analogous examinations. Oxford, therefore, runs the risk of losing the share which it has begun to take in the education of the women teachers of England. To obviate this, it is proposed to open to women some of the Honour Examinations for men, but not to grant them degrees; and as in the case of men residence is only required for degrees and not for examinations, it will be dispensed with in the case of women. This would be a great boon to many women, who, for some cause or other, are unable to leave their homes. The movement is supported by the great majority of the teaching body of Oxford, but a strong opposition is threatened by Canon Liddon and others. Mr. Humphry Ward, of 61, Russell-square, will be glad to receive at once the names of those who intend to vote for the statute. It is to be hoped that the enlightened party will score as striking a triumph as they did in the case of the

vivisection vote. After granting animals the privilege of being examined at Oxford, it would be illogical to refuse it to women.

In the 28 great towns of England the general death-rate last week was 20·4, and the zymotic death-rate 3·1 per 1,000. In the 8 principal Scottish towns the general death-rate was 25·2, and the zymotic rate 4·3. The town of Paisley distinguished itself by a general death-rate of 41·0, and a zymotic death-rate of 14·3, due chiefly to the prevalence of measles. In London, as may be seen from the chart, the general death-rate has fallen considerably,



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the first two weeks of the present quarter.

from 21·9 to 19·1, while the zymotic rate steadily keeps at 3·4. There has been no striking increase of epidemic disease during the week. The number of small-pox patients in the metropolitan hospitals is slowly increasing, and has now mounted to 355, but the deaths last week from the disease were only eight—a fact of some suggestiveness. The deaths from measles and whooping-cough were considerably in excess of the average, on account, no doubt, of lung complications, and were alone sufficient to account for the high zymotic death-rate.

In giving judgment in Mrs. Weldon's successful appeal against the decision of Baron Huddleston, who nonsuited her, Mr. Justice Manisty took precisely the same view, and expressed it in almost the same terms as the opinion previously given in these columns. "If," said the learned Judge, "Dr. Winslow had it at all in his mind that she (the plaintiff) should be taken to his asylum, he ought to have told Mr. Weldon at once, 'I can take no part in these proceedings. I can take no part in obtaining the certificates or getting the order. You must get some one else to act in the matter.' But, at all events, when it was arranged that she should be sent to his asylum he was bound to take no part whatever in the matter. He, however, had instructions from Mr. Weldon to do whatever was necessary in the matter, and was paid thirty guineas for his own fees, and those of the other medical men who were to act in the matter, and whom he himself selected. . . . Now I say unhesitatingly that that was wrong. That the registered proprietor of a lunatic asylum should interfere in any way in selecting the medical men who are to give the certificates, and in getting particulars of the 'statement,' . . . . is most improper." The learned judge then went on to remark upon the method of making the "separate examinations," on which we recently commented, and asked whether that method really satisfied the requisites of the statute that medical men should be absolutely independent, and each exercise an independent judgment, and have nothing to do with the proprietor of the lunatic asylum to which the person is to be sent? The decision of the Divisional Court is an indication of what we should have thought was tolerably obvious, that medical men, as well as other citizens, should not merely act up to the letter of the law, but give a wide and liberal interpretation to its meaning and intention, and not endeavour to sail close to the wind.

Throughout the long-continued agitation for medical reform the good of the public has been put by its promoters in the front rank of the reasons for its urgent and imperative necessity. And during the debates on the present Government Medical Acts' Amendment Bill, as on previous like occasions, the argument, that the public weal demands that the measure shall pass, has been freely employed. We are not at all unwilling to admit that the argument has some real foundation; that it is not a satisfactory or desirable thing that there should be in the United Kingdom nineteen Universities and Corporations legally empowered to grant licences to practise medicine, on conditions varying in breadth and strictness much at the will of the bodies so authorised; and that the inhabitants of Great Britain and Ireland ought to be more satisfactorily protected against imperfectly educated and incompetent medical practitioners. The public themselves ought surely to greatly desire such improved protection. But can it be honestly said that they have ever shown, or do now show, any interest in the matter? Have more than a very few of our legislators even, hereditary or elected, taken any real and active interest in a Medical Acts' Amendment Bill, except politically, that is, according as they were in sympathy with or hostile to the Government that, for the time being, fathered such a measure? He would be a very bold man who would answer either question in the affirmative.

Such a state of things is very unsatisfactory; and very discouraging to all those amongst us who earnestly desire to forward every reasonable improvement in

medical education and qualification, while it affords a rea ly excuse and a kind of justification to those who say that the existing medical systems work admirably well, and that whatever defects exist can be remedied without legislation. We are, therefore, glad to note any sign of interest in matters medical that may be shown by any member of the lay press. Last week one of our evening contemporaries published a note, written by a medical man, pointing out that differences exist as to the interpretation of one of the provisions of Clause 36 of the Medical Bill—a clause that concerns "expenses and medical funds." It has been asserted, the writer states, in an article published in *Blackwood's Magazine* that in future, if the Bill passes, "one class of students, and that presumably the poorer, will be charged a higher fee than another for precisely the same examination in order to provide compensation for certain medical examining bodies who lose their fees in consequence of the new State (Board) examination." One of the medical journals, it is added, promptly denied that this is so, and said it would certainly be unjust if it were the case; while another confirmed the statement made by *Blackwood*.

The provision referred to appears to us perfectly clear; it runs thus:—"In estimating the amount of fees to be charged by each Medical Board for its final examination, a distinction shall be made between so much of the fee as is leviable for the purpose of supplying funds for defraying the administrative expenses of the Board, and so much as is leviable for the purpose of defraying the expenses of the maintenance of museums and libraries; and the fees to be paid by University graduates, or under-graduates holding certificates of having passed the examinations at their University qualifying for admission to the final examination of the Board, shall not exceed the portion of the fee leviable as aforesaid for the purpose of supplying funds for the administrative expenses of the Board." And we fail to see that this provision entails any injustice. As things now are, if a University graduate takes a Corporation diploma, the fee he pays for it goes in part towards the support of that Corporation's museum or library, or both, if any exist: if he does not choose to take such a diploma, he contributes to the support of the library and museum of his University only. But should the Bill become law, the University man will be *obliged* to pass a Board Examination. He will have no choice as to that; but he will have already had to contribute towards the support of the library and museums of his University, and it would surely be very hard on him, not to say unjust, to oblige him, when paying for the obligatory Board Examination, to pay also for the maintenance of the library or museum of a Corporation the diploma of which he may have no intention of taking? Should University graduates wish, in the future, to obtain a diploma from a Corporation in addition to the licence of a Medical Board, they will have to reckon with the Corporations of their choice.

A curious instance of how one book begets another is furnished by the bulky volume of reminiscences just given to the world by Dr. C. J. B. Williams. If certain writers in Dr. Quain's "Dictionary of Medicine," trammelled by the exigencies of space, had not omitted to mention Dr. Williams' valuable contributions to medical science, the incentive required to make him put pen to paper would have been wanting, and the profession would have lost one of the most interesting volumes of medical reminiscences that has been published for years. It is hardly to be desired, however, that every writer who finds his name and work unduly passed over, should sit down and make up for the neglect by writing a book, for we could not expect that the result would in all cases be so satisfactory as in the present one. Dr. Williams has had quite exceptional experience of men and things in his own special line, and can detail it in a happy and interesting manner, without too often diverging into those minor matters of purely personal interest, which spoil most retrospects. A due sense of proportion is not indeed a characteristic of the extremes of life, but we have not much fault to find with Dr. Williams in this respect. His sketches, both with pen and pencil, of the great Frenchmen—La Place, Ampère, Gay-Lussac, Thénard, and Laennec—whom he met in Paris, when studying the newly discovered art of auscultation, are so vivid as to cause regret that he has not rendered a similar service to their English contemporaries. It may be noted with a melancholy interest that these sketches met with the recent approval of the veteran chemist Dumas, who died only a few days ago. We shall, of course, notice Dr. Williams' volume at greater length on a future opportunity.

The gap which has been created in the ranks of men of science by the death, alluded to above, of Jean Baptiste Dumas, full of years and honours, is one not easily to be filled up. By his labours in the vast field of organic chemistry he has made for himself a name which can never die out, even though the work of others may not always confirm his results. No less than forty-four years ago he was elected a foreign member of our Royal Society, and received the Copley Medal of that society forty years since.

The Association for the Advancement of Medicine by Research have added to their series of publications an able and closely reasoned pamphlet on "The Utility and Morality of Vivisection," by Dr. G. Gore, F.R.S., of Birmingham. The author begins by showing the scope and necessity of physiological experiments on animals. He points out that the uncertainty of the results of vivisection—even if admitted—is no bar to their usefulness, for certainty is a relative quality, absolute certainty being rarely attained, even in the simplest sciences. That uncertain and contradictory conclusions are obtained, is but an argument for further experiments, as such conclusions usually arise from imperfect work and insufficient perseverance. The results of properly made experiments do not contradict each other; if they did, successful research would be impossible. The author dwells on and illustrates the fact, that apparently trivial results sometimes lead to the discovery of additional knowledge of the very greatest utility and importance. "The least answer-

able objection to physiological experiments is, not that they are useless, but that the results of them sometimes compel unscientific persons to advance more rapidly, and to change their modes of thought and action. The anticipation that the advance of science will disturb religious belief and emotional sentiment, is largely the essential and hidden cause of opposition to scientific research." In dealing with the morality of vivisection, Dr. Gore points out that the cost in pain and distress of the experimental method of physiology is in many cases vastly less than that of waiting for knowledge from simple observation of natural phenomena. "Whilst we are waiting, millions of men and other animals are suffering pain and dying prematurely." These brief quotations will, we think, suffice to show the tone and method of the pamphlet, both of which are admirable. It deserves careful reading in the profession and outside it.

If the medical men of every considerable city should follow the example recently set by those of Baltimore, and commission one of their number to compile a bulky volume containing a chronology of events connected with the progress of medicine in their special city, and a biography of all the physicians who have practised therein, with a record of their literary contributions, &c., well, the number of crumpled rose-leaves in the bed of a medical editor would be considerably increased. Here and there such a volume may be tolerated, and if every city could find such a painstaking medical annalist as Baltimore has found in Dr. J. R. Quinan, the said medical editor might welcome such an addition to his labours, in view of the help which would concurrently be given to the medical historian of the future. But though every American city is said to regard itself as the hub of the Universe, few could unrol such a blushing record of honours as Baltimore, the physicians of which were amongst the first to introduce inoculation and subsequently vaccination into America, the first in the world to establish a College of Dentistry, the first in the United States to advocate the practicability of ovariotomy, the first in the world to tie the common iliac artery (in 1812), to divide the recti-oculi muscles for strabismus (in 1822), and to successfully perform the Cæsarean operation twice in the same subject, with safety on both occasions to mother and child. Such are only a few of "the donations of the physicians of Baltimore to the profession," and other less go-a-head cities may well hide their diminished heads.

The substance of Dr. Koch's Seventh Report on Cholera may be given in very few words. The connection between localised epidemics of cholera and water-supply from tanks polluted with sewage, had long been recognised by Indian doctors; and Dr. Koch, as soon as he arrived in India, requested the Sanitary Commissioner to inform him at once in the event of the occurrence of such an outbreak. He had to wait some weeks, but at length the expected phenomenon was announced to have occurred in one of the suburbs of Calcutta. At Saheb Bagau, a locality which has been repeatedly visited by cholera during the last hundred years, numerous cases of the disease were reported, and these, on enquiry, were found exclusively in the huts situated round a certain tank. Of the few hundred people (not *one* hundred, as a contemporary has translated it) who dwelt in these huts, as many as seventeen died of cholera, though the disease was not at that time prevalent in the neighbourhood, or indeed in the whole police district of Calcutta. It was proved by the Commission that, as usual in such cases, the dwellers around the tank used it for bathing, and drew thence their drinking water; it was also elicited that the linen of the first fatal case, befouled with cholera dejections, had been washed in the tank. Several specimens of water were taken from different parts of the tank and at different times, and in several of the earlier specimens cholera-bacilli were found in comparatively large numbers, by the aid of cultivation on gelatine. Of the later specimens, taken towards the end of the epidemic, only one contained the bacilli, and that had been drawn from a part of the tank which was especially polluted. Of the whole observation Dr. Koch remarks, "It may be said that chance has thus provided an experiment on the human subject, which makes up for our want of success in the experiments on animals, and which may be regarded as providing further confirmation of the truth of the view, that the specific cholera-bacilli are the actual cause of the disease."

The Commission have also continued their researches in other directions. They have examined twenty fatal cases of cholera *post-mortem*, and the dejections of eleven cholera patients, all of which gave exactly the same results as had been obtained before. They have further been experimenting on the influence of various re-agents, such as corrosive sublimate, carbolic acid and other disinfectants, on the development of cholera-bacilli in cultivation-liquids, and also on the behaviour of the bacilli in carbonic acid gas, and when cut off from the air. Attempts to discover a persistent form of the cholera-bacilli have not met with success, and Dr. Koch concludes that the only way to preserve their vitality for a lengthened period, is to keep them from being dried up. The researches are at an end for the present year. The temperature of Calcutta, in February, had already attained such a degree, that work in the laboratory could only be carried on with the greatest difficulty, and by the beginning of March the heat had become unendurable.

At the last meeting of the Council of the Royal Medical and Chirurgical Society, it was agreed to forward to Her Majesty the Queen a letter of condolence of the death of His Royal Highness the Duke of Albany.

By the death of Mr. Payne, the office of Coroner for the City of London is once more vacant. Without in any way disparaging the late officer, we cannot but feel that the office of Coroner is one which calls for much more medical than legal learning on the part of its holder, and this is especially true in regard to the post now vacant, for the proportion of hospital to other cases is probably larger in the City than in any

of the metropolitan districts. Dr. Wynn Westcott, Deputy-Coroner for Central Middlesex, is already in the field, and we hope shortly to be able to record that the important office of Coroner for the City of London, for Southwark and the Duchy of Lancaster, has been entrusted to him or some other thoroughly capable medical man.

Compulsory sobriety—if it be not absolutely impossible of realisation—is admittedly difficult of attainment. In America, where legislation of this kind has of late moved faster and farther than elsewhere, its progress has developed drawbacks of a kind which could scarcely have been anticipated by its most earnest advocates and supporters; and the thinking men of that country are being brought face to face with "a compensating evil," which deserves the careful consideration of those extreme reformers in this country who aim at laying an embargo upon the sale of all intoxicating beverages. In the first place, it must be recognised that of no article largely used in public consumption—especially if it be an article of diet—can it be asserted that its sale is absolutely "without detriment to the public welfare." And this is a necessity, not of the article itself—which may be perfectly innocent—but of the perverting tendencies of the human consumer. Tallow candles and lucifer matches have contributed in no mean degree to the march of modern civilisation, but the records of the fire insurance companies do not acquit them of all share in the world's disasters; the potato is a sufficiently innocent esculent, but if a man will fill his stomach with whole potatoes, he may have to pay the penalty of death—as was seen in that curious instance of self-indulgence which was reported in London about Christmas-time. Similarly, alcohol, which has its uses, is a substance easily capable of very grave abuse. But, since this substance is inanimate, while human nature is capable of training and education, the real remedy for the evils induced by immoderate indulgence in the one would seem to be most satisfactorily found in a wise culture of the other.

In several districts in the United States the Legislature has attempted absolutely to prohibit the sale of all intoxicants; and a similar law is proposed for other places in the Union. Now, as the editor of the *Century Magazine* has ably pointed out, there is no practical difficulty in applying this prohibition to the sale of *beer* in hotels, bars, drinking saloons, &c., since beer possesses commercial value only as a beverage, and to stop its sale as a beverage is practically to prevent its manufacture. But the case stands otherwise with spirits. Strong solutions of alcohol are recognised requirements in several branches of arts and manufactures; and alcohol would, therefore, continue to be produced and sold—would still be an article of trade—even though the sale of the stronger alcoholic beverages, as such, were put a stop to. Under these circumstances it is difficult to see what effectual guarantee would be given by such a prohibitory law against the simple substitution of spirits for beer amongst such of the population as had any desire for, or any temptations to, the continued consumption of alcoholic liquors.

The beer shops might be closed, and the brewing and malting trades would be ruined; but the distilleries would still be running. And the spirit—sold by the wholesale producers ostensibly for manufacturing purposes—would find its way into the hands of the consumer in various forms, and under various disguises; and that without the possibility of knowing how far, and in what manner, it had suffered adulteration from a dietetic standpoint. The great majority of people would probably be none the worse for a sharp restriction in the amount of intoxicating beverages. But it would be a distinct disadvantage to the community to cut off the supply of lighter intoxicants, such as beer, with the result of substituting the stronger intoxicants, such as whisky—and these probably in a state more or less impure and adulterated.

The probable result of such a substitution (with the exception that in this case the supplanting spirit was genuine and pure) is exemplified in the case of Scotland. Many years ago, roused by the passage of that bill which, in order to give the monopoly to English brewers, practically prohibited the production of Scotch ale, the people resolved, with short-sighted patriotism, to eschew malt-liquor and to adopt the whisky of home manufacture as a beverage in its stead. The consequences are that now, while every Englishman drinks three times as much malt-liquor as the average Scotchman, the Scotchman drinks three times as much whisky as the Englishman drinks of all spirits. And, although the population of the country, which does not equal that of London, is mostly a scattered one, so that there is nothing like the same amount of terrible overcrowding and abject poverty, and grinding competition which, in so many parts of England prove such powerful temptations to drink, yet Scotland is, as all men sorrowfully admit, one of the most intemperate of countries.

A quite different illustration of the inconveniences which may attend coercive legislation of this sort comes to us from Kansas. The laws of that State, we are told, do not allow the prescription of stimulants by physicians except under circumstances of extreme need, and the prescriber has to run the risk of a jury's deciding against him on this point. Recently the following case came before one of the State courts: a person claiming to be ill went to a physician, and, after an examination, a prescription for two bottles of beer was written out. The patient obtained the beer, returned to the physician's office, and then, upon the latter's invitation, the two went to a neighbouring restaurant and regaled themselves upon some oysters and the two bottles of beer, each drinking one. After this they attended a party together, then returned to the doctor's house, and after an hour or two of conversation the patient went home.

At the trial the physician deposed that he had acted in good faith, and believed the beer to be the proper remedy; but the jury found him guilty of a violation of the statute. We could, perhaps, under the circumstances detailed, have scarcely looked for any other verdict; although our sympathies may be with the defendant, and we may believe that the prescription of a bottle of beer—even if repeated *ad nauseam*—would

be probably less harmful than that of the pharmacopœial Mist. Sp. Vin. Gallici *quantum vis.* But from whatever point of view we look at this aspect of the attempt to impose morality by legislation—whether we regard it as implying the possible infliction of a still more serious evil on the people at large, or with reference to the restriction of their personal convenience—calm and thoughtful men will feel but the more reason to endorse the famous dictum of the Bishop of Peterborough, who said that had he to decide between liberty and sobriety, he would choose the former.

It is always humiliating to be obliged to explain one's small attempts at humour, but as several correspondents have been kind enough to inform us that the homœopathic formula is *Similia similibus curentur*, and not *Similes similibus curantur*, which they profess themselves unable to translate, it becomes necessary to enlighten them as to our meaning, and to furnish the clue to the proper translation. *Similes similibus curantur* is a medical rendering of the well-known proverb, "Birds of a feather," &c., "Like doctor, like patient," "Fools go to fools to be cured," "The superstitious are to be found in the consulting-rooms of the superstitious," these and many other free renderings we could supply, any one of which will be found by the reader who cares to refer to our editorial note of last week to sufficiently explain the recondite subtlety of the jest we were then guilty of.

THE CROONIAN LECTURES.

Dr. Hughlings Jackson has once more made the thoughtful student of neurology his grateful debtor. Of the three sets of valuable lectures given this year before the College of Physicians, the Croonians doubtless afford the richest material for most of us to reflect upon. We have profited and been pleased by Dr. Allbutt's eloquence and clinical insight, and have had our mental vision cleared by the careful reasoning of Dr. Andrew; but Dr. Jackson's subject, strange though it be to the minds of many, is illuminated by the scientific use of the imagination; and the more modern forms of thought which he so ably impresses on his clinical material wear almost the aspect of new knowledge. These lectures are so wide and full and suggestive, and touch upon so many points of the first importance in psychology, that no criticism of them can be attempted in the space of a short article. They may be regarded, with certain material exceptions, as mainly a contribution to nervous physiology by a study of pathological examples, and their chief issue may, perhaps, be said to be more concerned with philosophy than with practice. In the light of the doctrine of evolution which, as interpreted by Darwin and Mr. Herbert Spencer, the reader is presupposed to intelligently adopt, Dr. Jackson studies and analyses many phenomena of nervous disease, and no little weight is added by such study to the theory of evolution as applied to nervous physiology. It is, moreover, clearly shown that in many nervous disorders the symptoms are referable, on the one hand, to the modification or abeyance of the highest or most complex parts of the nervous system, and, on the other, to the activity of those parts immediately subordinate to them. The dissolution, thus, of what Dr. Jackson diagrammatically styles the higher or latest developed "layers" of the nervous centres, leaves those on the next lower "level of evolution" to reign predominantly over the rest of the nervous system. This notion is amply illustrated in the lectures before us. As soon, indeed, as the doctrine inculcated by Mr. Herbert Spencer of the evolution of the nervous system, on the structural side, from the simple to the complex—from the more stably to the less stably organised—or, on the functional side, from the automatic to the voluntary, is fully grasped, Dr. Jackson's explication of insanity, epilepsy, and other disorders seems at once to follow as a matter of necessity. None the less, however, is he to be honoured for having usefully applied this key to the matter of nervous pathology. He is, in fact, the skilful and successful employer of the evolutional "calculus" in this confused and confusing study. And if, apart from the philosophical interest of his writings, Dr. Jackson succeeds in helping us to take a truer view of the nature of many nerve-diseases, by introducing some order into the disorder of our knowledge, and giving not only attractiveness but also stimulation to our studies, we are bound to him, even for this alone, no less than if by searching he had found out a new and true bacillus, and perhaps more than if he had discovered a novel remedy for an old disease.

The doctrine of dissolution, or the reversal of the order of evolution, as applied to nerve maladies, is at once fascinating, and completely satisfactory in many cases, and it is no drawback from either of these merits to say that it does not obviously cover all. Generally speaking, as urged once more by Dr. Jackson, when any portion of the nervous system is injured, the parts in connection with it which suffer most are those which are most highly complex and specialised in their functions; for they are at the same time less organised, or, metaphorically speaking, less firmly "set," and are the farthest removed, of course, from automatism. This is evidenced both in the case of spasm and paralysis, and good examples are afforded by the consideration of the ordinary phenomena of hemiplegia, epilepsy, and aphasia. By a process of rigid analogy this notion can be applied to the order and disorder of the highest centres of all; for there is no break in structural continuity from the bottom to the top of the nervous system; and a flood of light is hereby thrown on many of the familiar phenomena of insanity and hysteria. Dr. Jackson ably insists on, and clearly illustrates, the necessary hypothesis that all nerve-centres from the lowest to the highest are sensori-motor in their construction; that the highest "sensory and motor centres" are, in fact, the physical basis of mind or consciousness (though he does not adopt this formula, as we shall see); or, in his own words, if they are for "mind" they are for "body" too. We thus are led to see how even the most complicated organism is in relation with the world external to it, when we learn to regard it, from one point of view, as a complex aggregation of simpler reflex elements excited to action by simpler physical stimuli. The most highly developed nervous system may in this light, in its individual and hereditary constitution, be looked upon as a special reservoir of cosmic force; a subtly made

reflex machine, responding to innumerable and often undiscoverable stimuli, and consisting of a hierarchy of parts, acting in subordination, each higher centre being the co-ordinating or controlling influence over the lower; the highest of all, the co-ordinator of all, or, as it were, the microcosm of the nervous organism.

This view of nervous organisation and disorganisation is apparently the modern philosophical aspect of what has long been implied in the, perhaps, rather vague, phrase of "want of control," as explanatory and illustrative of many nervous disorders. To enter further, however, into considerations such as these would be to go over the whole ground of these lectures, which we hope will soon be obtainable in an independent and, for the sake of the uninitiated especially, a fuller form than that in which they have appeared and were delivered.

The third lecture, where the relation of consciousness to physical nerve-phenomena is considered, is of the greatest interest to all who would study psychology in the light of modern knowledge. Dr. Jackson lays the utmost stress on the importance of using physical terms in describing nervous phenomena, and rightly condemns the employment of the term "sensation," which really has a mental connotation, when all that is meant is an impression conveyed from the periphery towards the centre. His contention, again, that neither "consciousness" nor "unconsciousness"—being terms not of matter but of mind—can be called on to explain physical phenomena is not less forcible because it apparently assumes that this fallacy is somewhat more widely spread than it probably is. Consciousness is admitted by the scientific psychologist to be merely a state attending on the activity of the higher nervous centres, an accompaniment, in other words, of certain nervous efforts. When action becomes automatic, consciousness fades or dies; it comes into play in the upward struggle of the organism to adapt its existence to its surroundings. Now, although this view of the question does not, of course, explain consciousness, it tends to mark the distinction we should endeavour to observe between terms relating to mental and nervous states, and shows us clearly that consciousness can explain nothing. Very complex actions when once they have become automatic, owing to the complete organisation of their nervous structures, are generally admitted to be unattended by consciousness; and the fact of consciousness accompanying certain nervous activities must be noted by the physiologist, but in no way allowed to play any explanatory part. Consciousness, however, we most of us feel, must be correlated in some more dignified way with the activities it accompanies; and at this point Dr. Jackson is to be found outside the pale of science, and companying for a moment with the metaphysicians. In propositions, two of which are almost obvious, and none quite fresh, he lays down (1) that states of mind (or consciousness) are utterly different from nervous states; (2) that for every mental state there is a correlative nervous state; (3) that although the two things occur in parallelism, there is no interference of one with the other. "This may be called," he says, "the doctrine of Concomitance." It certainly may. But why may we not equally well, with Spinoza and Leibnitz, call the doctrine by the older and better known name of "pre-established harmony"? For Leibnitz, seeing much the same difficulty that strikes us now, taught that the body and the mind were two independent but corresponding machines, adjusted like two unconnected clocks, and so constructed that the instant one strikes the hour, the other points it. There is nothing new or very light-reflecting under the metaphysical sun. But by executing over again this little philosophical manœuvre, Dr. Jackson cleverly evades the charge of materialism, and takes up the comfortable position of a Psychological Agnostic.

It is doubtless an error in terminology to say that a volition or emotion can produce a given physical nervous state, as, *e.g.*, that fright can cause chorea; but we do not get much farther, after all, when we say that the nervous activity accompanying the emotion is the cause of the subsequent motor disturbance. It is when we come to study the actions which are least obviously reflex in character, or, to use Dr. Jackson's words, "activities of a centre unprovoked from the periphery," that we arrive at the practical and almost insuperable difficulty of intelligibly expressing the proper relation and sequence of such events as these The most practical lesson, perhaps, to be learned by medical men from these lectures is the dictum, so ably urged by Dr. Jackson, that there is a negative and a positive element in the causation of many morbid nervous phenomena. A positive condition, such as for instance convulsion or over-action, cannot be explained by a destructive lesion of a given nerve-centre. Such a condition is often best explained by the hypothesis of a setting free of previously controlled energies. And here we receive the valuable hint that we should not seek in morbid anatomy a complete unriddling of all clinical phenomena; and find a useful light thrown on many of the events of so-called "functional" diseases, as exemplified by hysteria and the various expressions of insanity. In a series of papers by Dr. Mercier, published in the *Journal of Mental Science*, the scientific interpretation of the higher nerve disorders is being further worked out with originality and admirable clearness; and we have good reason to hope that the able guidance of Dr. Jackson in these most difficult and fascinating departments of physiology and medicine will be not unproductive of valuable results to science and humanity.

THE GRIEVANCES OF ARMY MEDICAL OFFICERS.

While it is gratifying to notice the generous recognition accorded to the work of the Army doctors in the recent miniature campaign in the Soudan, compared with the unmerited stigma cast upon them after the Egyptian war, it must not be forgotten by the profession at large, that those of their brethren who have accepted the Queen's commission have still many tangible grievances to complain of. These grievances mainly resolve themselves into two; first, inequality in the distribution of rewards for distinguished service as compared with combatant officers; and secondly, inequality as regards allowance of sick-leave. We have often visited with scorn the querulous com-

plaints of civilian doctors as to the paucity of titles, and other distinctions conferred on the medical profession, and it may at first sight seem inconsistent on our part to lay stress upon the corresponding complaints of army doctors. But the inconsistency is only apparent. The ideal to be aimed at by the medical civilian, is altogether different from that which the army medical officer may properly place before himself. With the exception of those unenviable few who devote themselves to courtly service, and who are always sure of their reward, whoever they may happen to be, the profession has two ideals to strive after: the one, success in scientific research; the other, success, or at any rate the happy consciousness of work conscientiously performed, in the alleviation of the sufferings of the people. In the one case, State rewards are superfluous; in the other, they are unattainable, and in both cases the less thought about them, the better. Scientific enthusiasm, which is a thing to be cherished and fostered as the very life-breath of medicine, is in itself a sufficient *vis a tergo*, without the necessity for introducing any supplemental *vis à fronte* in the allurement and promise of State rewards. The priesthood of science should need no encouragement in the shape of spiritual peerages to keep it closely applied to the bedside and the microscope. The scientific enthusiast explores, "because he must," and it is as absurd to expect to tempt him on with the dazzle of a State reward, as it is to believe that we can improve the linnet-song of the poet by the promise of a seat in the Upper Chamber. The ordinary practitioner, on the other hand, has no hope of distinction, and must always find his sole reward in the conscientious performance of his daily work. To place any other ideal before him, to turn his eyes to the coloured buttons which so plentifully deck the coats of his Continental confrères, and to put it into his head that he is a hardly used mortal, is to do him an evil service, and to substitute a vulgar and unattainable idea for an honourable one. With army medical officers the case is quite otherwise. Distinctions form a recognised part of their reward. Their ranks are recruited from a very different class of men from those who follow medicine as a science, and the dangers to which they are exposed are very much in excess of those that threaten the ordinary practitioner. A different kind of excellence is rightly demanded of the army medical officer, from that required of the scientific physician or surgeon. There is little room for the scientific ideal in an army doctor's ambition. Courage, activity, physical vigour and endurance, and administrative skill—which last is almost as rare and admirable a gift as scientific power—are the qualities that the War Office properly looks for in those whom it delights (?) to honour. Men with such gifts are naturally and blamelessly attracted by the prospect of State distinction, and the traditions of the service properly encourage them to work for it. There is little hope of reward in other directions. They are mostly cut off, both by their own mental constitution and by the conditions of their work, from the silent rewards of science, and their pay is not magnificent enough to put them even on a level with the country practitioner. Their grievance, therefore, in being treated less liberally in the matter of rewards and sick-leave than their combatant fellow-officers, is undeniably a just one, if it can be proved.

Can it be proved? The following statement of facts will go some way towards demonstration. We will confine ourselves entirely to the campaigns of the last few years. In the operations in Afghanistan, though many medical officers greatly distinguished themselves, and were highly praised in the despatches, their services were entirely unrecognised in respect to promotion. Of these Surgeon-Major Preston, Surgeon Hull, and Surgeon Duncan distinguished themselves in action, while the following were recorded as having suffered severely from exposure and from cholera, viz., Brigade-Surgeon Porter, Surgeons-Major Wright, Wallace, Atkins, Evatt, and Ruttledge, and Surgeons Harrison and Boulton. Surgeon Le Grand was specially mentioned for his services in the cholera epidemic. It is still constantly averred as a reason why army medical officers have less claim to promotion than combatant officers, that they are less exposed to danger; but whatever force there may once have been in this plea, has been entirely dissipated by the change in the modern conditions of warfare. This especially comes out in the records of the South African campaigns. Surgeon-Major Shepherd and two civil surgeons, serving temporarily in the Army Medical Department, were killed in the Zulu War, and Surgeon Longfield, R.N., was wounded. In the same operations, we may add, Surgeon-Major Reynolds especially distinguished himself for personal bravery, but the Victoria Cross was only conferred on him after strong pressure had been applied by his University; while in the operations against the Boers excellent service was rendered by the Army Medical Officers doing duty with the beleaguered garrisons in the Transvaal; but it appears to have been officially unrecognised. The dangers to which medical officers are exposed is here again shown in the list of fatalities, which included Surgeon-Major Cornish and Surgeon Landon, killed at Majuba Hill while attending the wounded. Surgeon-Major Babington was mentioned in both Houses of Parliament, as having worked day and night in succouring the wounded after the disasters, but no other distinction was accorded him. Surgeon Ring and Surgeon M'Gann were also reported as having been in attendance on the wounded under the heaviest fire—the one at Laing's Nek and Majuba, and the other at Ingogo, and yet their valuable and perilous services passed entirely without reward.

In the Egyptian campaign, Surgeon-Major Shaw, it will be remembered, was killed while in the performance of his duties, while Brigade-Surgeon Veale, Surgeon-Major Warren, Surgeon Ray, commanding No. 1 Bearer Company, and Surgeons Prendergast and Kelsall were all reported as having done excellent work. It is true that promotion was freely given after the Egyptian campaign, but we find that for every step accorded to the Army Medical Department, there were two accorded to *regimental* officers, whilst, if the promotions of staff officers were included, the disproportion in the promotions would be much greater. The recent operations, in which the services

of the army medical officers have been fully recognised by the General in Command, have again shown that the dangers to which such officers are exposed are quite as great as those which menace combatant officers. At Teb, Surgeon Martin, R.N., and Surgeon Turner, and at Tamasi, Surgeon Prendergast and Surgeon Cross, R.N., were wounded. In this campaign there was no breakdown in the department, such as was alleged to have occurred in Egypt, and Surgeon-Major McDowell has been especially mentioned as having fulfilled his responsible duties with the highest efficiency. It is very evident from the above bald statement of facts, viz., that the medical officers of the army are distinctly neglected in the distribution of rewards, though their services are quite as important and responsible as those of combatant officers, and their exposure to danger quite as great.

The second main grievance of army medical officers is their unfair treatment in regard to allowance of sick-leave. When a combatant officer falls ill, he can obtain a year or more of sick-leave. The medical officer, on the other hand, though far more liable to contract disease while in the execution of his duty, is only allowed leave for six months, and if he is not then able to return to his duties, he is placed on half-pay. There is a manifest injustice here. The medical officers have more foreign service in unhealthy climates than any other officers, and it is just at the most unhealthy season that their work becomes the hardest. They are thus kept at their posts when combatant officers are able to go away to the hills, and it is hardly to be wondered at, that an excessive proportion of them fall ill. They ought, in fact, to be treated more liberally in the matter of sick-leave than other officers, but the cases of hardship that are constantly being brought to one's attention, show, we fear, that the War Office thinks otherwise.

Over and over again, before now, a strong case has been made out for reform in the points we have alluded to, but reform still lingers. It is not much that is asked for. The following four concessions would probably satisfy every complaint. First, let the title of non-combatant be abolished. It has been shown to be a misnomer, and if it were removed, there would be some likelihood of a more equal distribution of rewards. If it is argued that rewards are kept for personal prowess, then the answer is obvious, for personal prowess is shown quite as much, if not more, in tending the wounded under a heavy fire, as in actually engaging with the enemy. Hand-to-hand fighting is rare in battles between civilised nations, and recent events have shown that in irregular warfare the medical officer is quite as likely to find himself in the thick of it, as the combatant officer. The second reform should be the institution of a rank amongst the medical officers equivalent to brevet amongst combatant officers. At present the promotion for distinguished service of a medical officer is necessarily made at the expense of a brother officer, the higher ranks in the medical department being limited. Thirdly, good work in connection with epidemics, and especially in the case of cholera, should be recognised as giving a claim to promotion; and fourthly, the medical officers should be placed on exactly the same conditions as the combatant officers in the matter of sick-leave. We do not say that these reforms alone would be sufficient to remove all grievances on the part of army medical officers, but if at the same time, a more generous spirit were systematically shown to the department by the War Office, we would venture to prophesy that little more would be heard of these long-standing complaints.

THE GILBERT SCOTT CASE.

The Commission in Lunacy for the trial of the petition concerning the sanity of Mr. G. Scott, has been one of the most momentous events in the legal history of insanity that has happened for many years. Not only is it the first enquiry that has yet been held since the passing of the Act in 1862, but it is rendered memorable by many inherent characters, by the novelty and importance of the points raised and decided, by the admirable summing up of the learned judge who tried the case, Mr. Justice Denman, and by the promptness and unanimity with which the verdict was found. It was admitted by both sides that in July last Mr. Scott was insane. The petitioners, Mr. Scott's wife and brother, maintained that he was still insane and incapable of managing his affairs. On the other hand, Mr. Scott's counsel "did not dispute a temporary derangement, but considered that it had arisen only from drinking," and affirmed that at the present time he was sane and able to manage his affairs, in proof of which he called evidence to show that since his outbreak of admitted insanity he had been engaged in his profession as an architect, and had transacted business of a complicated nature with skill and success. The first part of this defence is of a very surprising character. It virtually enunciate the doctrine that madness is not madness if it is caused by drink. If this defence were valid, any raging maniac might take a knife and run amuck amongst his friends and neighbours, and no step could be taken to restrain him because his madness might be due to drink. Any medical man who certified him as a lunatic would lay himself open to an action at law. It is satisfactory to find that the vigorous intelligence of the judge brushed aside this absurd plea. "If a man," he told the jury, "through drink, or through excessive erotic passion, or through overwork, or anything else, becomes of unsound mind—it does not matter how he became so—it is none the less unsoundness of mind."

The second contention of the defence, that the subject of the petition was able to conduct his business of architecture successfully, was actually proved. He was shown to have recently drawn up the plans and directed the operations for building a church for the Duke of Norfolk, and the whole of this work had been well and efficiently done; the church, it was said, is greatly admired. The fact that a man can conduct his business successfully is, of course, presumptive evidence of his sanity; but it is not conclusive evidence. Everyone who has had experience of insanity knows that a man may be quite able to conduct his business and yet be insane, but to those who have had no such experience, such a statement is startling, and is usually received with incredulity. It is, there-

fore, much to the credit of the learned judge who tried the case, that he should have taken a broad, comprehensive and scientific view of the matter. In his summing up, he said that "juries had sometimes been led to the conclusion, that if a man is proved capable of doing things connected with his trade or profession, and doing them cleverly, that is sufficient to show him capable of managing his affairs." He (the learned judge) did not think this was so. He thought a man might be able to do all these things perfectly well, and yet be incapable of managing his affairs. When such a large word as "affairs" was used, he should say *it applied to the management of all the affairs of his life, of his wife, his children, and his home, and not to mere matters of business only.* This is unquestionably the true conception of insanity, from the scientific point of view, and it is extremely satisfactory to find that it is also the true conception from the legal point of view.

After this judicial dictum, we hope that we shall never again hear the leading journal demanding the life of some wretched lunatic homicide on the ground that he has been able to attend to his work up to the day of the murder. The bloodthirsty tone of the articles of the *Times* on cases of lunatic homicides is most reprehensible; and if anything could be in worse taste, or display more cynical disregard of the amenities of journalism than its articles upon the Gouldstone case, it is its leader upon the case of Mr. Gilbert Scott. It is difficult to imagine that any human being could be placed in a more painful and distressing position than this unfortunate man's more unfortunate wife. To see the man with whom her life was bound up, her husband, the father of her five children, the bread-winner of her family, attacked by the most cruel infliction to which mankind is subject, to have her own and her children's most sacred feelings outraged by him, to be compelled to separate herself from him, and to be the instrument of his incarceration, and, finally, to be obliged to drag her husband's malady and her own sorrows before the whole world; surely this is suffering enough for any woman. Surely the leading journal of the world, the representative of the cultured classes, will deal tenderly with her. In such circumstances, under such a heavy trial, in so unforeseen and unusual a calamity, a false step, an error of judgment might be looked on with a lenient eye. But she made no false step. She acted, not only with the sanction, but on the advice of her husband's brother and of his intimate friend, an eminent barrister. It is difficult to see what better course she could have taken, even had their advice been bad. But it was not bad. The course taken in getting Mr. Scott placed under supervision and under treatment at the earliest possible moment after his malady had unmistakably declared itself, was the very best, the kindest, the most judicious that could possibly have been taken. As the learned judge put it to the jury in his admirable summing up, "to appeal to the jury on the ground that it would be a cruel or shocking thing to incarcerate Mr. Scott, was to appeal to their prejudices and not to their reasons. It begged the whole question. If a man was of unsound mind, his confinement was necessary. If there was any prospect of his recovery, under proper care, it would rather be a cruelty than otherwise to refuse to confine him." Yet for this poor woman, thus tried and not found wanting, the *Times* has nothing but sneers and inuendoes, and insinuations:—"His family deserve whatever credit is due for promptitude." "It is just conceivable that a little patience might have saved his friends from having to perform the painful duty of locking him up among declared madmen." "Four days of partial (!) derangement seems scarcely strong enough evidence to warrant a step which cannot fail to aggravate the mischief should the diagnosis be mistaken." In other words, the treatment adopted could not fail to make him more mad, supposing that he was not mad at all! Certainly, in this case, the *Times* has not taken up a line which it will be able to look back upon with pride or satisfaction.

REVIEWS AND NOTICES OF BOOKS.

A SCIENTIFIC BLUE-BOOK.[1]

The magnificent second volume of scientific reports, which has recently been issued by the Imperial Board of Health in Germany, is well calculated to arouse envy and discontent in the breast of every scientific Englishman. We cannot forget that we were first in the field with State contributions to science, and that the admirable volumes yearly issued by the Privy Council under the editorship of Mr Simon, have formed the prototype of these splendid publications that come to us from Germany. But we, with all our wealth, have been far outdistanced by the Fatherland, comparatively poor as it is, and no Englishman who has the honour of his country and of science at heart, can see with equanimity another country taking up, and so strikingly improving upon, the beneficient *rôle* which we were the first to initiate. Mr. Herbert Spencer, we suppose, would regard the expenditure of State funds on the advancement of science, as only another link in the chain of "the coming slavery," but the School of Doctrinaire Radicals has had its day, if not its say, and now that the State has elected to take so much upon its shoulders that has hitherto been left to private effort, it is hardly too much to ask that some of the funds which are being so freely spent on the bricks and mortar of museums of art and science, shall be devoted to providing those metaphorical bricks and mortar on which the scientific edifice of the future must be founded. It is a disgrace to England that she almost alone amongst civilised countries has no State-supported institution for scientific research into those abstruse and difficult questions, on the successful solution of which the happiness and health of generations yet unborn must depend. No more remunerative investment could be found, we are sure, than the expenditure of a few thousands yearly on a State laboratory, in which those problems of disease, that are now so largely engaging scientific thought, could be systematically worked out by the best minds of the day. And the volumes of reports issued from such a workshop would, we venture to say, not only be welcomed with proud satisfaction by

[1] "Mittheilungen aus dem Kaiserlichen Gesundheitsamte;" herausgegeben von Dr. Struck, Geheimer Ober-Regierungsrath. Zweiter Band. Berlin: Hirschwald, 1884.

the nation, but would be pointed to by future generations, in the same way that we now point to the noble buildings of the Middle Ages, as glorious evidence of work, done with faithfulness and foresight in the interests of posterity.

The volume under review, which has been issued under the supervision of Dr. Struck, the Director of the Imperial Board of Health in Berlin, will certainly occupy a prominent place amongst the remarkable publications of the present year. If only for the papers which it contains upon the subject of tubercle and tubercular disease the book is of the highest value, and from the fact that part of the work which it records has been carried out by Dr. Koch, as a continuation of his study of the properties of the micro-organism which he discovered and announced to the medical world only two years ago, that value is not only present but also historic in character. The first volume of the series was also largely devoted to the subject of micro-organisms, but it dealt in great measure with the various methods of investigation employed in their discovery. The direct object of the present volume is the study of the causation of certain infectious diseases, and of the best means of checking their spread, by disinfection.

First in position, and probably to most readers first also in importance, stands a paper by Dr. Koch, on the ætiology of tubercle, illustrated by a series of admirably executed plates, from which alone a fund of practical information may be gained. The subject is opened by a historical account of the labours of Klencke, Villemin, Klebs and Cohnheim, in the same field, and a clearly written description of the methods of cultivation, whereby the bacilli are isolated from the material in which they have been at first developed. The chapter following is devoted to the proof of the occurrence of pathogenic organisms in tissues affected with tubercular disease, and in their secretions. The methods of staining are described with precision and distinctness, and it may be noted that after treating his sections with nitric acid, Dr. Koch advises that they be immediately transferred to alcohol, without previous washing in water. The locality of the tubercle-bacillus in the affected tissues and cells is of much importance, and a good deal of space is devoted to the subject; the relation of the bacillus to the nuclei of the giant-cell being minutely described and graphically illustrated in the plates. "One finds them (the bacilli) with the greatest certainty at those spots where the tubercular process has just begun, or is rapidly progressing." In the caseous material there are generally but few to be seen, except where the disintegrating process is taking place very quickly. The bacilli, as Dr. Koch confidently asserts, are the cause, and not the consequence, of the degenerative change. With respect to the process by which a latent tubercular centre is capable of giving rise to an active general infection, he believes that it is due to the agency of the wandering cells (leucocytes) which bear the bacilli about in the tissues, and may leave them in any spot whatsoever, being themselves brought to a standstill by their constantly increasing burden. What the next step in the process may be is at present unsettled, and remains to be determined by future investigations.

The subject of general tuberculosis in the human subject is discussed in the light afforded by the series of practical observations upon acute tuberculosis, tubercular phthisis, and tubercular disease of all the organs in their turn, which Dr. Koch has undertaken. The belief which was at first largely held in this country, viz., that the bacillus was only to be found in the later stages of tubercular formations, will be completely upset by the results here given of investigations into a series of nineteen cases of acute miliary tubercle. "In no single instance were the bacilli found to be absent. The smaller and younger the nodules, the more profuse were the bacilli contained within them, being especially numerous towards the centre." With the beginning of caseation the number of bacilli was found to be diminished. In twenty-nine cases of pulmonary phthisis the bacilli were invariably present, and usually directly proportionate in number to the rapidity of the process of disintegration. Following out the tubercular diseases of animals, through various species, the constant association of this special bacillus with the occurrence of tubercle, is everywhere demonstrated. The isolation and re-cultivation of the micro-organisms, and the results of infection experiments are each in turn considered, and the paper is brought to a close by a critical examination of the results of all the observations therein recorded, in proof of the relation of the bacillus of tubercle to the ætiology of tuberculosis.

A short paper by Dr. Gaffky contains a record of the daily fluctuations observed in the number of bacilli present in the sputa of fourteen patients, suffering from tubercular phthisis. Of 982 observations, only forty-four failed to demonstrate the presence of the micro-organisms. The subject of the "Disinfection of Phthisical Sputa" is discussed by Drs. Ernest Schill and Bernhard Fischer. The infective power of such sputa is at first equally manifest in the fresh moist secretion, and in the dry dust into which it may, in course of time, be converted. Unlike certain other bacteria-bearing matters, the tubercular tissue appears to lose its infective power after a lapse of time; dried sputa, which appeared active at the 95th day, gradually became less powerful, until on the 226th day they produced no effect whatever. A long and laborious series of experiments are here recorded, and the results obtained by the various disinfecting agents, duly tabulated. The list of contributions, each containing the results of many months of original research and experiment, which is contained in the volume, is too extended to admit of special reference to the vast number of new and interesting observations brought forward. Many of them, dealing with such subjects as the presence of micro-organisms in atmospheric air, their effect upon the air-passages of the body, and the means of lessening those effects; the ætiology of typhoid fever and of diphtheria in relation to the presence of bacteria; disinfection by chlorine and bromine, &c., must be deferred for separate consideration, as it is our intention to publish a series of abstracts of the more important articles. The work, as a whole, is admirably arranged, the printing and the illustrations being executed in a manner which leaves little to be desired.

St. Thomas's Hospital Reports; New Series, Vol. xii. for 1882. London: J. and A. Churchill.—This volume was very late in appearing, though not quite so late as the date of this notice might lead the reader to suppose. The major part of it is taken up by the reports of the medical and surgical registrars, and of the ophthalmic, obstetrical, and throat departments; the last-named, by Dr. Semon, certainly justifies the formation of a special department, and contains an account of many interesting cases, which, under other circumstances, would probably have been overlooked. We have only space to allude to one of these cases now, and we select it on account of its extreme rarity; the case was one of so-called aphonia spastica, or spasm of the tensors of the vocal cords in a seafaring man, æt. 57. Dr. Semon was able to examine him and recognise that during the spasmodic closure of the glottis on phonation, the vocal cords seemed almost to overlap one another. As is frequently the case with patients of exceptional interest, the man was not seen a second time. The 150 pages devoted to original papers are mainly occupied by the physicians. Dr. Bristowe contributes a paper on painful paraplegia, being a study of six cases of cancerous or sarcomatous disease of some part of the spine. Dr. Stone writes on "some effects of brain disturbance on the handwriting," in which he describes a curious cerebral attack he had himself undergone, during convalescence from which he had what he considers to have been a "diplographia depending on want of synchronism or parallelism between the two hemispheres of the brain." "On some clinical aspects of glycosuria" is the title of a paper by Dr. Ord, in which he treats of glycosuria as a symptom apart from diabetes mellitus, and as occurring in association with certain nerve disorders, with gout, with errors of diet, and with albuminuria. Though by no means an exhaustive article, it is a distinct addition to the literature of an important topic by one well qualified to write upon it. Dr. John Harley advocates boldness in the treatment of hydatid tumours of the liver; he taps with a large trocar and canula, and makes a permanent opening by tying the canula in. At the end of a week the cyst should be adherent to the abdominal wall; he then removes the lining membrane of the cyst wall piecemeal by sucking it up into the eye of a catheter, and then tearing it away; when all the membrane has been removed, the cavity contracts and becomes obliterated. Mr. Le Gros Clark contributes a chatty article on a great variety of diseases, the outcome of the experience of a long career, which will be read with interest and pleasure by all his former pupils. Mr. Croft concludes a short paper on the treatment of cancerous obstruction of the œsophagus by permanent catheterism with a series of propositions to the effect that the operation is a safe one in moderately early cases, that it is not intrinsically dangerous, that it may be performed where gastrostomy would be certain to fail, and with more immediate beneficial results, that it may be continued indefinitely so long as the patient lives, and that with due care the risks are but few. The other papers are, on two cases of ulcerative endocarditis following an attack of acute pneumonia, by Dr. Gulliver; on paraplegic rigidity in hemiplegia, by Dr. Hadden; on a case of fatal hæmorrhage from the internal carotid after suppurative tonsillitis by Mr. Pitts; a case of spontaneous gangrene of the toe, by Mr. Makins; one of paralysis of the serratus magnus, by Mr. Clutton; and two cases of pemphigus, by Dr. Payne. The space at our disposal does not permit us to consider these in detail, though there is much that is of interest in many of them; but we must not omit to mention in conclusion a brief obituary of the late Dr. Twining by one of the editors.

Simple Chronic Peritonitis with Effusion; by Dr. H. Vierordt. Tübingen: H. Laupp, 1884.—To determine the pathological changes which are taking place in processes of disease which invariably end in recovery, is one of the most difficult of the problems that have to be solved in the study of medicine. It is only by applying the rules of analogy that the nature of the phenomena occurring in hidden cavities can be even approximately discovered, and this very means is so beset by possible sources of error, that, in some instances, the difficulties of diagnosis have led to a kind of nihilistic despair, and authors have found it easier to deny the existence of some pathological conditions altogether, than to explain them from the symptoms alone. The subject of Dr. Vierordt's monograph may be regarded as an instance of this. Chronic peritonitis is, in the vast number of cases, a secondary condition, of which the primary cause is to be found in specific deposits in the peritonæum itself, or in some definite disease of some of the abdominal viscera; but cases occasionally present themselves in which none of these causes are present, and the only explanation of them must be sought in a simple inflammatory condition of the membrane itself. Such a condition, however, has been frequently denied; and, amongst others, by Dr. Felix von Niemeyer. In the present work we have an accurate clinical record of 28 cases of simple peritonitis, followed by a careful account of the disease, its ætiology, course and treatment, partly derived from a close study of the recorded cases and partly argumentative, in criticism of, and reply to, the writings and opinions of other workers in the same field. The importance of watching the indications afforded by the urine in these cases is more than once insisted upon. The author shows that not only do fluctuations in the quantity and density of the urine take place with the varying increase and decrease of the peritonæal fluid, but that the success of certain lines of treatment, intended to promote absorption, may be accurately gauged by observation of the signs afforded by the urine. The disease, although assumed to be a simple inflammation at the outset, is prone to be followed by other and often more grave affections of the peritonæum; and the gravity of each particular case is, therefore, dependent upon it freedom or otherwise from complications. In this respect the affection offers a striking contrast to the analogous process in the pleura, in which the simple forms of inflammation are common and in themselves serious, whilst specific deposits in the membrane are comparatively rare. This question, of what might be called the inherent tendency of the various serous membranes to become attacked by different forms of disease, is only lightly touched upon by Dr. Vierordt; nor does he do more than mention the occasional occurrence of simultaneous dropsy of all the membranes. In his account of the treatment of simple peritonitis, he lays especial stress on the value of mercurial inunctions, and other local applications, but is somewhat meagre in his account of the operation of tapping. The monograph, as a whole, is a useful contribution to the literature of a subject already well discussed, but by no means thoroughly exhausted.

Révue Mensuelle de Laryngologie, d'Otologie, et de Rhinologie. Nos. 1 and 2, 1884.—An elaborate dissertation on the phenomena and causation of hiccough, by Dr. Délie, d'Ypres, opens the first number of this year's issue. The object of the author is to call especial attention to the pharyngo-laryngeal symptoms which may accompany this troublesome affection, setting aside for the time the accepted theories with respect to the influence of the phrenic nerve in its production. The starting point in his investigations was furnished, he tells us, by those cases in which spasm of the vocal cords takes place, after local applications to the larynx, accompanied by a painful constriction of the epigastrium, both of which are at once relieved by the occurrence of noisy and voluminous eructations. Details are given of several cases in which obstinate hiccough was found to be due to some pharyngeal, laryngeal or tracheal irritation. A case of hiccough and pharyngo-laryngeal spasm is related with great accuracy of detail, the whole affection being due to hysteria, and accompanied by a great variety of symptoms. From a therapeutic point of view, however, it appeared that local mechanical applications to the pharynx itself only sufficed to check the hiccough even for a few moments, the spasm returning with the cessation of the treatment. Relief was, however, ultimately obtained under bromide of potassium. Arguing by the light of his clinical observations alone, Dr. Délie assumes that hiccough results from direct or reflex irritation of the spinal accessory nerve, and manifests itself by spasm of all the muscles supplied by this nerve or by its anastomoses. An interesting case of probable fracture of the auditory ossicles from indirect violence, is

communicated by Dr. E. J. Moure. The commencement of a paper on syphilis of the ear, in the February number of the *Revue*, is interesting from a historical standpoint. A case of epithelioma of the posterior part of the cricoid cartilage, extending into the pharynx and upper part of œsophagus, is related by Dr. G. Coupard, by whom the growth was destroyed by means of the galvano-cautery at a moderate heat, in several sittings. The chief, and at first the only, symptom produced by the tumour was an unaccountable difficulty in swallowing bread. After four months apparent freedom, the growth returned, the glands became infected and the patient rapidly sank, with all the symptoms of a cancerous cachexia. A case of what he terms scotoma of audition is published by Dr. Brunschvig. The patient, a plumber, with slight catarrh of the middle ear, was discovered to be quite deaf to sounds produced at certain distances, although well able to distinguish the same sounds when brought within, or placed beyond, the same ranges. The observation was only made on two occasions, but the results were confirmatory.

Nordiskt Medicinskt Arkiv. Band XV., third and fourth parts, 1883.—Amongst many interesting original articles in the last two volumes of this quarterly journal, the following may be specially noted. Dr. Warfvinge, of Stockholm, discusses the antiseptic treatment of infectious disease in general, and of typhoid fever in particular, from what may be termed a "bacterial" standpoint. Regarding the presence and development of lowly organisms as the essential and primary cause of the occurrence and continuance of the infective fevers, he would act in accordance with his convictions and attack the fever by attempting to destroy, or at least neutralise, the activity of the parasites which maintain it. He claims to have obtained satisfactory results in typhoid fever by means of the internal administration of carbolic acid, the temperature generally being considerably lowered, and other symptoms materially improved. His belief in the virtue of specific remedies is apparently of no ordinary kind, extending as it does to a trusting faith in the curative action of alum in whooping-cough. Contrary to the experience of other observers, he has found that the internal administration of carbolic acid does not produce reduction of temperature in healthy persons. Dr. E. Bull, of Christiania, contributes a paper on operative treatment of lung diseases. Several operations have been attempted for the permanent closure or contraction of large pulmonary cavities, but the results can hardly be yet considered encouraging. He relates particulars of one case, unsuccessful owing to a mistaken diagnosis of the nature and seat of the lesion, and points out the liability which is always present of physical signs being misinterpreted even by the most skilled observers. Dr. Ödmansson, of Stockholm, gives, at considerable length, his clinical experience and views on the subject of the excision of primary syphilitic sores. His results go far to prove that the free removal of the primary sore has a marked influence upon the subsequent development of the disease. In almost all his cases there had been already some enlargement of lymphatic glands, but, notwithstanding this fact, the subsequent phenomena were confined to the very mildest secondary signs, and in no instance followed by any grave lesions of any of the tissues. The method of excision was simple and free, ordinary curved scissors being used. A paper by Dr. Georges Asp, of Helsingfors, on the development of end-organs in nerves; and some clinical observations on meningitis in very young children, by Dr. O. Medin, of Stockholm, are also of interest.

The Diagnosis of Diseases of the Spinal Cord; by W. R. Gowers, M.D. Third Edition. London: J. & A. Churchill, 1884.—This little work well deserves the success it has met with, for it gives in a clear and succinct manner, every hint that up to the present time can be made available to aid in determining the nature of the complex group of symptoms, owning for their cause some disturbance in the spinal cord. The present edition is enriched by a few pages on the means of distinguishing between functional and organic disease, which, as every one must have often experienced, is sometimes a very real difficulty.

ABSTRACTS AND EXTRACTS.

THE SUMMING UP IN THE GILBERT SCOTT CASE.

The principles laid down by Mr. Justice Denman in his summing up in the Gilbert Scott case are so important in a medico-legal point of view that we need make no apology for republishing the *Times'* report of it.

His lordship commenced by reviewing the circumstances which led to the passing of the Act of 1862, under which this enquiry was held. After reading the words of the Act, his lordship said that the question for the jury was whether Mr. Scott was of unsound mind, and incapable of managing himself or his affairs. In order to elucidate those words, his lordship read several passages from "Blackstone's Commentaries," in definition of the term "lunatic," and in reference to the legal position of those found lunatic by inquisition. On that his lordship said to appeal to the jury, on the ground that it would be a cruel or shocking thing to incarcerate Mr. Scott was, to appeal to their prejudices and not to their reason. It begged the whole question. If a man was of unsound man his confinement was necessary. If there was any prospect of his recovery under proper care, it would be rather a cruelty than otherwise to refuse to confine him. Juries had sometimes been led to the conclusion that if a man is proved capable of doing things connected with his trade or profession, and doing them cleverly, that is sufficient to show him capable of managing his affairs. He (the learned judge) did not think this was so. He thought a man might be able to do all these things perfectly well and yet be incapable of managing his affairs. When such a large word as "affairs" was used, he should say it applied to the management of all the affairs of his life, of his wife, his children, and his home, and not to mere matters of business only. As to managing himself, it was clearly not evidence of insanity that a man is fond of drink. But if, coupled with other acts, which a jury might reasonably look upon as mad acts, there should appear an inability to control himself on occasions when it was of the utmost importance that he should control himself, that would be evidence. And if a man, through drink, or through excessive erotic passion, or through overwork, or anything else, becomes of unsound mind—it does not matter how he became so—it is none the less unsoundness of mind. It should be understood that in every case the presumption was in favour of sanity. A man must be taken to be sane until he is shown to be the contrary. But if a man was proved to be insane in June, and again in July, August, and September, and so on in each following month, and was then tried for murder in April, he (the learned Judge) would never tell the jury that it was necessary still to presume sanity as though the contrary had never been shown. If insanity had been established and had gone on for some time, then, in spite of the legal presumption, a different state of things would be raised in the minds of those who, as reasonable men, had to judge of what followed. What was the general character of the man before all this took place? The account given of him before last year might have been overcoloured. But it would be a question for them (the jury) whether the person they had seen there was not prior to 1883 a man of singularly good appearance, manners, morals, and all such things. That being the previous character of the man, they came to the date in 1881 when he brought out his architectural work. Before that time all they knew was that he had been at Eton and at Cambridge, had obtained a first-class in the Moral Science Tripos, had then taken to architecture, and no doubt succeeded his father in some of his work. Then he published his book, and about that time his wife noticed that he became excited and irritable, and was taking spirits. But, she said, he became all right again. Then we came to the visit to Wimbledon in July, 1883. (His lordship then referred to the events of July 16–20, remarking that though at first it was doubtful whether

he was suffering at this time from anything more than the effects of a series of drinking bouts, as the case went on it became indubitable that he was completely out of his mind and suffering from delusions.) A question had been suggested whether it was a wise thing to send him to Bethlem. Bethlem had, no doubt, an ugly name. At the same time, when it was suggested that there was some sinister motive in what was done, they had it sworn to that it was done on medical advice, and that the doctor who was consulted thought it was the best place for Mr. Scott. At the time he was in Bethlem it might be presumed he was looked after and his mind properly cared for. At this time he wrote letters to his wife and other people. There could be no doubt from these that down to the end of August his delusions continued. His lordship went through these letters at length, noticing his suspicion of designs against him, of the "doctoring" of cigars sent him, of his wife's fidelity, and his declarations of the sanity of the whole of Bethlem. After these his lordship read the principal letters from Rouen. Referring to the threatening post-cards to Mr. Dunkenfield Scott and Mr. Webster, his lordship said this was an act which brought him within the reach of the criminal law. Would a jury at that time have convicted Mr. Scott of threatening to murder, or would they have found that he was at that time in such a state of mind that he did not understand the quality of the act he was doing? Were these sane or insane acts, and was the man at that time in a fit state to have the management of himself or his affairs? His lordship then went at great length into the correspondence from this point down to the post-card written to Mr. Justice Day, and read the previous morning, which his lordship said was undoubtedly a very extraordinary act, though whether it was due to insanity or mere eccentricity it was for the jury to say. Turning to the evidence of the medical men, the learned judge said that as a matter of course they would find the medical men differing in opinion. On questions of fact, as to the habits and behaviour of lunatics, they might be trustworthy guides. After all, the medical men were only men of common sense, and the jury were equally men of common sense, and though it was almost impossible for a layman to say why he thinks, or does not think, a particular man of unsound mind, the opinion of laymen on such questions was often a matter of complete certainty. Doctors differed, engineers differed, and experts generally differed, and in giving evidence they naturally tried to make a case for the side by which they were called. His lordship then proceeded to read in detail the principal evidence of the witnesses on both sides. Having done this, his lordship said it was for the jury to say whether this gentleman is at the present time, at the time of the conclusion of this enquiry, of sound mind, that is to say, a person capable of managing himself, of keeping himself from doing unworthy acts, or perhaps dangerous acts, or a person capable of managing his own business, in the sense not merely of possessing first-rate professional ability, but of being one who could properly and safely be left to himself to control all that concerned himself. Or, on the other hand, it was for them to say whether he was a person who ought to be put under the care of others, that is to say, under the care of the Lord Chancellor, for the proper protection of himself, and his estate, and those connected with him. In conclusion, his lordship told the jury that a unanimous verdict was most desirable, but, as he had informed them at the outset, the law provided that the issue might be decided by the verdict of the majority. He, therefore, requested them to take a reasonable time with the view of securing unanimity, but if after reasonable consideration they found that only a majority could agree either way, it would be his duty to report accordingly.

PHARMACOLOGY AND THERAPEUTICS.

PARALDEHYDE AS A NARCOTIC.—Dr. Carl von Noorden, of Giessen, in an article on this subject, states that paraldehyde was first recommended as a narcotic by Cirullo, in consequence of experiments made on animals; he found that it produced in them a quiet sleep without any excitement and followed by no ill effects, and that it had no disturbing influence on the heart or respiration. Most of the notices hitherto published on the effects of paraldehyde on men have been from various lunatic asylums, and all have been favourable. The paper by Dr. von Noorden gives the results of the use of paraldehyde as a narcotic in a general hospital on all classes of patients. The paraldehyde used was obtained from E. Schering, of Berlin, and Merk, of Darmstadt, the dose varied from three to six grains, usually given with equal quantities of Tinct. Aurant Co. and Syrup; generally four and a half grains were sufficient, but when larger quantities were given no unpleasant results followed. The drug was usually given at eight p.m., sleep followed, as a rule, in about 30 minutes (from 15 to 45), and there were very rarely any complaints of nausea after taking it. The patients slept, as a rule, from five to six hours, the sleep was quiet and deep, and if from any noise, &c., the patients woke up, they soon slept again. Those patients who suffered merely from nervous sleeplessness generally slept quietly through the night, others who required a narcotic on account of dyspnœa, cough, or pain, were generally wakened towards morning by their complaint, and prevented by it from again falling asleep. On waking they felt refreshed, and had no bad after-effects, but sometimes noticed a smell and taste of paraldehyde, which, however, was only strong enough to be disagreeable in two cases. The drug was given about 120 times to 30 different patients, most of them only took it once, several often; but these latter alternately with morphia, opium, bromide of potassium and cannabin, in order to compare the effects of these various narcotics. It was given in cases of emphysema, bronchitis, phthisis, myocarditis, valvular diseases of the heart, spinal and other nervous affections, later stages of pneumonia, jaundice, chronic articular rheumatism and sleeplessness from rheumatic neuralgia, &c. In two cases it produced nausea and headache, probably from individual peculiarities. In cases of severe gastric disorder and laryngeal phthisis it cannot be given, owing to its local effects. Special attention was given to its influence on the organs of respiration and circulation, both in cases where these organs were diseased and where they were healthy. Respiration was not affected in any case. Patients with weak hearts bore the drug well, experienced but little diminution of arterial tension, and obtained refreshing sleep. To observe the influence of paraldehyde by day, four patients took it in doses of five grains, all had slept well the previous night and only transitory sleep was produced; in these also the respiration was not influenced, there was a slight diminution in the frequency of the pulse, and a slight diminution of arterial blood-pressure. In order to determine the arterial tension, this was estimated by a sphygmograph at short intervals, both before and after taking the drug. Three of the four were strong men with healthy hearts, in these there was a slight decrease of tension. The fourth suffered from mitral insufficiency and constriction, and for a long time had been near the stage of failing compensation; in him diminution of tension was almost absent, and the drug had less influence in this direction than in the three with healthy hearts. The decrease of tension reached its maximum from one to two and a half hours after taking the paraldehyde; half an hour after this had been reached, the tension was in all cases restored to its previous height, and a few hours later had quite regained it. These cases appear to show that paraldehyde may safely be given as a narcotic in cases of heart disease where chloral would be dangerous.—*Centralblatt für Klinische Medicin*, No. 12, 1884.

COMPARATIVE EFFECTS OF PARALDEHYDE, CHLORAL, AND MORPHIA.—Dr. Dujardin-Beaumetz publishes in the *Bulletin de Thérapeutique* (January 30th), the results of numerous trials which he has made of paraldehyde, according to M. Yvon's formula, viz., paraldehyde, twenty parts by weight, alcohol at 90° 100, syrup 75, and tincture of vanilla 5 parts. Of this solution twenty to thirty grammes (*i.e.*, two or three of paraldehyde) are given at a dose. All patients agree as to its having a less disagreeable taste than chloral, while a calm and refreshing sleep of from four to eight hours is soon produced, preceded in some cases, and especially in females, by a few minutes of excitement. On awaking there is no

headache or heaviness. There is, however, an extremely strong odour of aldehyde exhaled by the breath, especially when three grammes have been taken. As a hypnotic, it has proved itself superior to morphia and chloral; the sleep produced being more calm, waking being also more easy, and unaccompanied by the pains in the head, attendant upon opium. But while chloral, and especially morphia, will allay pain without causing sleep, this is not the case with paraldehyde, which under these circumstances is powerless. It is, however, an excellent remedy in insomnia, and that even in cases of morphiomania; its use in such a case, in the hands of Dr. Constantin Paul, having broken through the morphia-habit. It has yet to be determined whether the prolonged use of this substance may not induce disorders in the economy, analogous to those produced by alcohol, and further the stability of a substance which is an intermediate between alcohol and acetic acid, with a tendency to return to one or other of these bodies, has to be enquired into.

Desiccated Ox-Blood.—Dr. Stewart, of Philadelphia, observes (*Medical Reporter*, January 26th), that in the last edition of the *United States Pharmacopœia*, he is credited with the introduction of desiccated ox-blood, as a method of administering iron, but he wishes to state that this is neither the sole, nor even the principal use of this valuable article. It is, in fact, a concentrated nutritive tonic, prepared by drying bullock's blood at a low temperature, in shallow pans, so as to prevent the albumen coagulating. The product is in the form of thin scales. The blood may be prevented from clotting by stirring it before drying, and removing the small portion of fibrin that attaches itself to the stirring rod, or by adding a small portion of acid before desiccating. So prepared, blood has been used with benefit in wasting diseases; in various cachexiæ, such as scrofula, consumption, and syphilis; in anæmia and chlorosis, in atonic dyspepsia, after hæmorrhages and exhausting discharges; in the height of the fever process; in convalescence from fever; and as a "building-up" measure in surgical cases before or after operation. It is also indicated whenever it is desirable to give iron, but more especially, whenever the problem is to give food. If quickly dried, it is inodorous, and almost devoid of unpleasant taste. It may be prescribed with glycerine and brandy, or simply in solution in water. A good formula is, Sanguinis exsicc. ʒvi, Aquæ ʒiv, Misce et adde Sp. Vini Gall., Glycerini aa.ʒj. A tablespoonful three or four times a day. In fever cases, when the temperature is high, a teaspoonful, or more if the stomach will bear it, may be given every hour, the dejections being carefully examined, to see whether it is all assimilated. When it is not, they are stained black, but the addition of pepsin will usually remove the difficulty. A few drops of any essential oil will effectually disguise the taste. When an aqueous solution of the blood is prepared, the water must never be poured on the scales, but the scales placed in the water, stirring with a glass rod, or spatula, so as to prevent their agglomerating into a mass. The water used also must be always cold, in order to avoid coagulating the abundant albumen. Administered by the rectum, the blood is in some instances absorbed, but in others it is not so, and in these last, the addition of pepsin should be tried. Before injecting the solution, it should be only gently warmed, so as to avoid coagulation of the albumen, which occurs at 160°.

Effects of Tobacco-Smoking on the Eyes.—In a discussion which took place at the Paris Société de Médecine Publique, on the accidents produced by tobacco, Dr. Galezowski having detailed the results of his experience, as regards the effects produced on the eye (*Annales d'Hygiène*, January), terminated with these conclusions:—(1) Poisoning by tobacco-smoking may, in certain individuals, bring on serious, but curable, visual disturbances. (2) These disturbances only supervene after prolonged and immoderate use of tobacco. (3) In individuals who indulge in the abuse of alcoholic drinks, and in certain idiosyncrasies, tobacco may, even when absorbed in only small quantities, induce such disturbances. (4) For the relief of these affections of the eye, not only must the employment of tobacco be absolutely abandoned, but places where smoking is carried on must be avoided. (5) Remaining for a prolonged time in an atmosphere saturated with tobacco, may prove dangerous for the general health, as well as for the sight; and it is very desirable that effectual ventilation be provided in localities in which smoking is constantly going on, as clubs, cafés, &c.

Therapeutical Eccentricities.—Under this title the *Révue de Thérapeutique*, February 15th, states that Dr. Langenbusch, considering that the gall-bladder is often the receptacle of biliary calculi, that its development varies greatly in different species of animals, that it is absent in the horse and elephant, that its congenital absence in man is by no means absolutely rare, and that at autopsies obliteration of the biliary duct is often met with, arrives at the conclusion that its importance is of very little account in our existence, and accordingly he undertook its removal in a man, 42 years of age, who had suffered from gall-stones since 1866. The operation proved perfectly successful. Professor Vachetta advises in chronic anæmia the injection into the peritonæum of a solution of the citro-ammoniacal albuminate of iron. Excision of a portion of the stomach was performed for the first time in Switzerland by Professor Socin, of Basle, for cancer of the pylorus in a woman 42 years of age. The operation lasted two hours, and, the newspapers say, gives every hope of a successful issue. The success, indeed, is certain as far as the operator is concerned, for he will get himself well talked about; but as regards the patient, the following statistics show the results of sixteen similar operations. Fourteen proved immediately fatal, and in the two others relapse took place in two months. "One is really proud of being a Frenchman when such eccentricities are taking place amongst foreigners!"

Treatment of Albuminuria by Nitro-Glycerine and the Chloride of Gold and Sodium.—*The Boston Medical and Surgical Journal*, January 10th, contains a paper on this subject by Dr. Roberts Bartholow. He considers these remedies of great value. In acute cases nitro-glycerine should be given immediately on the subsidence of the acute symptoms. It is indicated at all periods in chronic cases, but is more especially useful if given before hypertrophy of the muscular layer of the arterioles has taken place. When it acts favourably the amount of albumen in the urine steadily diminishes. The initial dose is one minim of the one per cent. solution, and should be increased until the very characteristic physiological effects are produced; the interval between the doses should not exceed three or four hours. The double chloride of gold and sodium is indicated in the subacute and chronic cases, especially the latter. The earlier it is given the better, if structural changes are to be prevented or arrested. The usual dose is gr. $\frac{1}{30}$ twice a day, but this may be much increased if necessary. At the outset gr. $\frac{1}{10}$ may be given; in a week the dose should be lowered to gr. $\frac{1}{15}$; and, after a month, the regular dose of gr. $\frac{1}{30}$ should be steadily administered with occasional intermissions. It is usually well borne, but if it cause indigestion, gastralgia, and colic pains, nausea, or diarrhœa, the dose must be diminished. The above remedies, if employed together in the same case, should be given uncombined, and at different hours; but the nitro-glycerine may be given with amyl or sodic nitrite; and corrosive sublimate may be combined with chloride of gold and sodium. These remedies may be discontinued if they produce no obviously good effects after two weeks' administration.

Pains in the Side in Phthisis.—These pains (*points de coté*) may precede any other symptom, and then are valuable from a diagnostic point of view; but M. Rigaud, in his thesis on the subject, has chiefly in view their occurrence at later periods of the disease, when they are due to the inflammation caused by the presence of a superficial cavity. There exists a painful condition of all the corresponding region, the pains sometimes becoming very sharp when the thorax is put into motion. M. Rigaud has seen these case

very advantageously treated in M. Legroux's wards by the application of collodion. After washing and drying the part, a succession of layers of this substance is applied to it by means of a badger's-hair brush, until a kind of cuirass is formed, which offers sufficient resistance not to split during the movements of the thorax. If a fissure does occur it must be immediately repaired; and if the pain does not disappear, the procedure must be repeated. In most cases almost immediate relief is obtained.—*Journal de Thérapeutique*, December 2nd.

PROPERTIES OF KAIRIN.—Dr. Crook, of the Post-Graduate Medical School, New York, in a paper published in the *Philadelphia Medical News*, March 22nd, states that the investigations thus far made with regard to kairin justify the following conclusions:—1. It is a decided febrifuge, rapid though somewhat fugacious in its action. 2. It diminishes the frequency of the heart's action to some extent, though the pulse-rate does not fall *pari passu* with the temperature. 3. The symptoms of collapse—cyanosis, cold extremities, &c.—may be entirely or in a large degree avoided by close attention and the proper use of stimulants. 4. It is a tolerably constant diaphoretic. 5. Its action in intermittents, though not fully tested, warrants the belief that it possesses valuable antiperiodic properties, and as such should be carefully investigated. 6. Though it may not be found to possess all the properties of the alkaloid quinia, enough has been learned of its action to justify the hope that a perfect substitute may yet be found, and to inspire us with renewed confidence in the resources of organic chemistry.

IRIDIN IN THE TREATMENT OF THE SICKNESS OF EARLY PREGNANCY.—Dr. Berry Hart recommends the use of two grains of iridin in the form of a pill to be taken at night, and to be followed in the morning by a draught of Friedrichshall water, a teaspoonful of Carlsbad salts, or a doubly strong Seidlitz powder. He states that out of nine cases where this treatment was tried, eight were cured. He was led to the use of this remedy by Dr. Matthews Duncan's allusion to the probable influence of the liver in causing the vomiting of pregnancy.—*Edinburgh Clinical and Pathological Journal*, February 16th.

THE CONDITION OF THE URINE IN SULPHURIC ACID POISONING.—Hoppe Seyler describes (*Zeitschrift für Klinische Medicin*, 1883. Bd. VI., Hft. 5, pp. 478 und 479) the occurrence of an acetone-producing substance in the urine in a case of poisoning with sulphuric acid. The scanty urine, free from albumen, which was passed by a young woman on the sixth day after she had swallowed sulphuric acid, smelt of acetone, and on being tested gave the reactions of acetone. A few days later, when the vomiting and anorexia ceased and she was again able to take nourishment, the acetone disappeared.—*Centralblatt für Klinische Medicin*, January 19th, 1884.

UTILITY OF COCA.—Dr. Hicks, writing in the *New York Medical Journal*, February 23rd, expresses his surprise that this substance is so seldom employed, and enumerates the circumstances under which he has found it highly useful. These are (1) to prevent and relieve fatigue; (2) in backache, accompanied by high-coloured urine, with excess of uric acid and urates; (3) in short breathing from weakness of the muscles of inspiration; (4) palpitation, without valvular lesions, due to dilatation, or weakness of the heart-muscle; (5) it renews the vigour of the intellect, and relieves mental exhaustion, rendering the flow of thought more easy, and the reasoning power more vigorous; (6) it dissipates the "blues," leaving the mind calm; (7) it destroys the craving for alcohol, and in small doses is useful in sick headache, and headache resulting from over-exertion; (8) its habitual use as a part of the daily diet conduces to mental clearness and activity, freedom from fatigue, and sound sleep.

THE TREATMENT OF WHOOPING-COUGH.—In the *Birmingham Medical Review*, for February, Dr. W. H. O. Sankey, lauds a very ancient remedy, viz., carbonate of iron for this disease. He recommends small doses, one grain to each year of the patient up to five or six grains, to be given every three or four hours, and in order to conceal the taste, he suggests that it be administered under the guise of chocolate. He considers that the good results obtained by this treatment afford support to the neurotic theory of the disease, and the well-known beneficial effects of change of air point in the same direction.

NITRITE OF AMYL IN AMMONIACAL URINE.—Professor von Dittel observed at the Vienna Medical Society, that he had for a long time past in obstinate cases of ammoniacal urine found this substance very useful. A solution is made of three drops in 150 of water, and a tablespoonful of this is added to a litre of water, with which the bladder is washed out. The unpleasant smell of the urine diminishes immediately, and is replaced by a pleasant ether odour.—*Allgemeine Wiener Medicinische Zeitung*, January 15th.

A GOOD REMEDY FOR BURNS.—Dr. Finfrock, writing in the *New York Medical Record*, March 22nd, states that, having had during the last twenty years to treat an unusual number of cases of burns, he has found the following remedy by far the best. He first applies powdered bicarbonate of soda, in order to relieve the pain, and then dresses the parts with the following ointment, changing the dressings only when the discharge renders it absolutely necessary: ℞ Ceræ Flavæ ʒj, Ol. Lini Rectif. ʒiii, Acid. Tannic. ʒj, Bismuth. gr. xx. Melt the wax in a clean tin or porcelain vessel, add the oil, and heat to nearly boiling. Remove from the fire, and add first the tannic acid finely powdered, and then the bismuth. To be thoroughly incorporated by stirring until cold.

THE TREATMENT OF DIPHTHERIA BY PAPAYOTIN.—During the last few years Dr. Schöffer has tried most of the remedies recommended to be used in cases of diphtheria, and obtained the best results from papayotin; last summer he treated 47 cases with a five per cent. solution (of papayotin). He begins the treatment as soon as possible, and orders the patches to be painted every five or ten minutes with this solution; in a few hours the membranes are said to be removed, and at the same time the fever disappears. Ewald suggests that an active pancreatic extract should be used instead of papayotin.—*Berliner Klinische Wochenschrift.*

FORMULA FOR HÆMORRHOIDS.—Dr. B. Lee, of Philadelphia, recommends the following: ℞ Pulv. Rhei ʒiv; Pulv. Aloes ʒiii; Pulv. Myrrhæ ʒii; Sapon. Hispan. ad ʒii Ol. Cajeput ʒi. The powders are to be rubbed up together, the soap worked in, and then the oil. The well-mixed mass should be used as fresh as possible, and should be kept in air-tight bottles. Three grains of the mass make an effective pill, which is not irritating, and may be used a long while without diminishing the susceptibility of the intestines, and often with positive benefit to the hæmorrhoidal affection.—*New York Medical Record*, February 9th.

INUNCTION OF QUININE.—The *Louisville Medical News*, March 29th, quotes the highly favourable opinion entertained by Dr. Wale, of Missouri, of the great efficacy of quinine mixed in lard as a means of treatment of intermittent fever or other malarial disease in infants. Of 162 infants under twelve months, treated for intermittent and remittent, since 1830, he has only met with three failures—the amount employed being about three times that required when given by the mouth. This is mixed with a teaspoonful of lard, divided into three parts, and rubbed on to inner side of the thighs and groin, one part every two or three hours. To be effectual, the rubbing-in must be completed several hours before the expected paroxysm. If the paroxysm is not lessened, the rubbing should be repeated next day, and if lessened the amount used should be in proportion less. In only a minority of cases has a repetition beeen required, but occasionally two repetitions have been called for. For young infants many physicians give too small doses, a young infant requiring a larger dose than an older one.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON,

TUESDAY, APRIL 15TH, 1884.

J. WHITAKER HULKE, F.R.S., President, in the Chair.

Cirrhosis of Liver.

DR. F. C. TURNER showed a specimen of well-marked cirrhosis of the liver, the microscopical appearances were characteristic, the overgrowth of connective tissue being considerable, the liver cells were much degenerated, and there was a good deal of fatty change in places. Groups of dilated biliary ducts surrounded the margin of the tracts of fibrous tissue. A blood clot occupied several branches of the portal vein; mingled with the corpuscles were fragments of liver cells, and of the epithelial lining of the ducts. Laceration of liver tissue could be seen at one place where there was a similar commingling of blood and liver substance as in the portal veins. This laceration must have taken place shortly before death. No liver cells were found in the hepatic venules, probably because they would have been carried to the heart. There was some analogy to the fat embolism seen in cases of fracture of long bones when the medullary canal was damaged. The specimen was noteworthy also in connection with biliary cirrhosis. But the cirrhotic tissue in this case did not originate in an irritative lesion of the bile ducts, because the ducts in this specimen fringed the tract of connective tissue, their increased development was secondary rather than primary. There was no direct continuity between the epithelium of the ducts and the liver cells as maintained by Sabourin, Woodhead, and others. The progressive growth of bile ducts might be due to atrophy of the liver cells. He had no history of the case, but assumed that the liver had been enlarged and corresponded with the condition usually described as biliary cirrhosis.

Dr. CARRINGTON asked whether the appearances could not have been due to the preparation of the section, and what other evidence there was of destruction of the liver.

Dr. GOODHART said this case raised the question as to the nature of biliary cirrhosis. The question was a very difficult one, statements were made and accepted without question, many did not believe in its existence.

Dr. TURNER could not agree that the liver cells could have got into the portal vein by accident. He could not suggest any other explanation than the one he had already given.

Abscess of the Brain.

Dr. CAYLEY said the specimen was taken from the body of a man, aged 18. He had suffered from pleurisy and hæmoptysis. Headache and loss of power on the left side were the earliest symptoms. There was no loss of sensation and no mental impairment. Signs of disease of left lung were found. On the day after admission he had a left-sided convulsion, without loss of consciousness, commencing in the leg. After this the pupils were unequal. There were no ophthalmoscopic changes. The temperature was decidedly subnormal. A few days later death took place. An abscess was found in the right centrum ovale, with a distinct lining membrane, destroying the upper part of the ascending parietal convolution. On the left side there was an abscess in the temporo-sphenoidal lobe. There was old disease of the left lung. During life the case had been regarded as one of tubercular tumour. Had the abscess been suspected, trephining would have been easy, and probably successful.

The PRESIDENT had been interested in the continuous low temperature, he had seen the same thing also in cases of traumatic abscess of the brain.

Dr. EWART noted that both abscesses were in the course of the distribution of the middle cerebral artery. It suggested that they were due to conveyance of pus from the diseased lung.

Primary Cancer of the Liver.

Dr. W. TIVY read notes of this case. The patient was a woman, aged 51, whose illness dated from June, 1883, when she suffered from dyspeptic symptoms and enlarged abdomen. She had noticed a small lump in right side of abdomen since 1861. There wa s a family history of phthisis, and an aunt and cousin had had cancer. There was no suspicion of syphilis, and her general health had been good. She was subject to psoriasis. There was a large and hard nodulated tumour in the right hypochondrium, no ascites, and no signs of disease elsewhere. The abdomen rather rapidly increased in size. In November, having had slight mental symptoms for a few days, she had a series of epileptic convulsions, and remained unconscious till her death, a few days later. At the necropsy there was a large cancerous tumour of the liver, but the other viscera were healthy. The liver weighed 9 lbs., the right lobe was infiltrated throughout, and the left lobe contained numerous tumours, some portions of them being somewhat hard. Microscopically, in places there was very little fibrous tissue and many cells, but in other places there was a large amount of fibrous tissue. He assumed there had been a scirrhous tumour at first, which had taken on an encephaloid type. There were many points of clinical interest, especially the long duration of the disease, the non-affection of other viscera, and the absence of jaundice and ascites.

Cerebro-spinal Meningitis.

Dr. CARRINGTON said that the first patient was a Swedish seaman, aged 27. He had ailed two weeks, restlessness, insomnia, and headache were the chief symptoms. His neck was rigid, and head a little retracted. Marks of syphilitic eruption were found on the thighs and legs. A few days later, petechiæ appeared on the trunk, and herpes on the lips. The deep and superficial reflexes two days later were absent. Next day there was optic neuritis, and four days later he died. At the *post-mortem* there was a good deal of lymph on the under surface of the pons, and in the neighbourhood of this, some lymph extended down the front of the spinal cord, but not at the upper part. The internal ears were healthy. The second patient was also a Swede, aged 20, he had similar symptoms, but no history could be obtained. He also had some rigidity of the neck. There was not much eruption; there was some facial paralysis a few days before death. At the autopsy, the convolutions were flattened, and the arachnoid was sticky, the sub-arachnoid space was dilated, and the parts around third ventricle were softened, a little lymph for about two inches down the cord. Other organs healthy, internal ears healthy. He had been unable to trace either of these patients on leaving their ships. He noted that there was a large amount of pus in the first case, but very little in the second.

Mr. JESSETT mentioned an outbreak he had seen amongst some troops, and referred to a theory that the disease broke out in ships which had been used for conveying cattle.

Dr. TURNER said that two cases had been admitted into the London Hospital on March 6th and March 16th. The

first was a black sailor, who died three days after admission; he was delirious all the time, his neck was stiff, and the left leg was weak. There was purulent lymph over brain and down posterior aspect of spinal cord in each case, but not at the base of the brain. The symptoms of the second case, he believed, were similar.

Mr. Ernest Clarke mentioned the case of an infant he had seen at Lewisham about the same time, in which death occurred on the third day, there was general purulent meningitis.

Congenital Tumour of the Back.

Mr. Davies-Colley had removed this from a boy, aged 16; it had grown ever since birth, more rapidly of late. A month before he came it had begun to ulcerate. It was flat, extending from the fourth to the tenth dorsal spines, the pedicle was very short, the tumour was four inches in breadth, it was freely movable, and the skin was movable over it, the ulcer was an inch in diameter. It was of uniform firmness, lobulated, of granular feel. It was removed, and recovery was rapid. There were loculi of various sizes with thin fibrous partitions, out of them small glandular-looking bodies dropped out like enlarged lymphatic glands. The nodules had a delicate stroma with many fusiform cells, their nuclei being elongated. It was a fibro-sarcoma; but originally was polycystic, and subsequently there had been a development of fibro-sarcomatous growth. It reminded him of fibro-cystic disease of the breast. No cartilage or bone was present.

Mr. Butlin thought that Mr. Davies-Colley's case opened several points for pathological discussion. If the tumour was cystic and congenital, it was not improbably, in the first instance, a cavernous lymphatic tumour, and it was very unusual for intra-cystic growths to be developed in the interior of the cystic cavities of such tumours. The origin of the intra-cystic growths was also a matter of doubt; it seemed more likely that they grew from the material which lay between the cysts than from the endothelium which, presumably, lined the cysts. Although the structure of the tumour led to the use of the term fibro-sarcoma, he could hardly believe that the fusiform cell tissue, which appeared to be tolerably abundant, had the same signification as in a true sarcoma, for he thought it improbable that the disease would prove to be in any respect malignant.

Enchondroma of Lung.

Dr. Norman Dalton exhibited some microscopical preparations from a case of this disease. He said that the mediastinal glands were enlarged forming a hard mass. In the right lung just above its root was a tumour which towards the mediastinum was hard and white, whilst towards the lung it was softer and yellowish. The tumour was found to consist of hyaline cartilage apparently in the walls of the air-cells, the cavities of the air-cells were occupied by masses of large cells like embryonic cartilage. The mediastinal tumour showed a similar structure. There were thrombi in the veins of the right side of the neck, almost completely decolourised.

Card Specimens.

Dr. F. C. Turner. (1) Duodenal ulcer, fatal hæmorrhage, pouching of the duodenum. (2) A similar specimen. (3) Ulceration of the pylorus. (4) Spinal cord from a case of cerebro-spinal meningitis.

Mr. Lane. (1) Fracture of the hyoid bone, with deformity of the thyroid and cricoid cartilages. (2) Fracture of the seventh and eighth costal cartilages. (3) Diphtheria of larynx spreading upwards to pharynx.

Dr. Carrington. Cancer of gall bladder.

Dr. Barnes. Calculus vesicæ.

Mr. Sutton. (1) Dissection of stump. (2) Separation of epiphysis of fibula.

Dr. Hale White. Hour glass constriction of stomach.

HARVEIAN SOCIETY OF LONDON.

Thursday, April 3rd, 1884.

George P. Field, M.R.C.S., President, in the Chair.

Discussion on Scarlet Fever.

In his opening remarks, Mr. Cripps Lawrence gave out the following heads for discussion:—(1) Ætiology of Scarlet Fever; (2) Surgical Scarlet Fever; (3) Puerperal Scarlet Fever; (4) Differential Diagnosis.—(1) *Ætiology.* The virus of scarlet fever is undoubtedly specific, but while most believe it to be an organised body, as yet its existence has not been demonstrated. The specific action of the virus is manifested in the uniformity which scarlatinous blood exhibits microscopically; by the reproduction of the disease when such blood is injected into healthy animals, or inoculated into the human subject; and by the power of propagation possessed by the inoculated form. While holding the view that desquamating cuticle is one of the chief means by which scarlet fever is transmitted, Mr. Lawrence noted that this belief was not universal in the profession, and that a German authority had denied that the epidermal scales were infectious. The possibility that eczema, urticaria, pityriasis, measles, and rötheln, may be associated with desquamation, and possibly sore throat, renders it imperative to avoid precipitancy in diagnosis as well as dogmatic assertions which may injure a professional brother. The chief characteristics of the scarlatinal poison were briefly referred to, such as its volatility, its durability, and its transmissibility by unaffected persons. The speaker also dealt with Suppressed Scarlet Fever and with Recurrent Scarlet Fever. (2) *Surgical Scarlet Fever* was not a new disease. Mr. Germain Sée noticed, in 1858, following upon tracheotomy, an eruption closely allied to scarlet fever. From theses by M. Trélat and Mr. E. C. Stirling the following propositions could be gathered:—(*a*) Scarlet fever may be an immediate sequel of operations; (*b*) it exhibits certain variations; (*c*) it more or less retards cicatrisation of the wound; (*d*) a wound is a necessary condition for its production; (*e*) various eruptions, other than scarlet fever, may follow operations, wounds, and injuries. The views of Sir James Paget, of Mr. Howse, and Dr. Goodhart were quoted. Some doubt was expressed as to the possibility of a latent scarlet fever, and of an indefinite incubation. (3) *Puerperal Scarlet Fever* was a variety, having an incubation period of from twenty-four to forty-eight hours. Mr. Lawrence referred to five labours associated with puerperal scarlet fever: one mother escaped, although malignant scarlet fever deprived her of four children during the week of her labour; four mothers recovered after severe scarlet fever; one infant died, two infants escaped, and two recovered. The address by Dr. Priestley, at the Obstetrical Society in 1876, gave the results of a discussion on this topic. Mr. Lawrence noted the marked frequency of pulse which followed the third stage of labour, as an initial symptom in the cases of puerperal scarlet fever observed by him; and he enquired whether rupture of the perinæum was a constant factor in such cases. (4) The *Differential Diagnosis* was considered with reference to measles, roseola, and rötheln, in connection with incubation, eruption, temperature, and state of the tongue, cervical glands, and throat.

Dr. Broadbent concurred in the view that the disease depended upon some organic contagion. Among the ætiological moments were mentioned the varying liabilities of families, of social classes and of race. In France the name of scarlet fever inspired no terror, the disease being regarded by the public and by the profession as relatively devoid of danger. In many families an inverse relation had been observed to exist between the liability to scarlet fever and the liability to measles. With reference to surgical scarlet fever occurring in cases where no definite exposure to the poison could be traced, Dr. Broadbent suggested that the depression of vitality consequent upon wounds might produce a susceptibility for diluted doses which in health exercised no evil influence. A case was mentioned, which occurred after tracheotomy, and led to the nurse being subsequently affected. Reference was also made to suppressed

scarlet fever, and to cases in which a form of puerperal fever was the outcome of the scarlatinal poison; the appearance of genuine symptoms of scarlet fever under similar circumstances was a comparatively hopeful indication.

Dr. MAHOMED dwelt upon the fact that scarlatina was not always propagated by contact with infectious persons. He remarked upon its occasionally endemic character, and quoted cases in which it had repeatedly occurred in houses associated with other cases of septic poisoning, and was clearly traceable to sanitary defects. He thought it not infrequently a "drain disease." Although he did not believe in its spontaneous generation, yet he thought it very probable that a comparatively innocent germ or ferment could take a more malignant character; in fact, he believed in the evolution of the poison. He referred to the recent observations on the jequirity fermentation as throwing light on the relation of bacteria to disease, of which he thought we knew but little; he thought it quite as probable that the disease caused the bacteria, as that the bacteria caused the disease. He strongly affirmed the risk arising from desquamation, which he stated could not be prevented, though it might be diminished by the use of antiseptic inunctions. He had seen the infection retained and transmitted for the longest periods by slight cases in which the desquamation was fine and powdery; he had known such a case convey infection eleven weeks after the commencement of the illness. With regard to surgical scarlet fever, he regarded it as the same disease as ordinary scarlet fever, he had seen such cases transmit the ordinary disease to others. He stated that the disease in this form was generally mild, and that it ran an abbreviated course in its incubation, fever, sequelæ, and desquamation. The albuminuria occurred much earlier in such cases than in the ordinary disease. He believed that scarlatinal poison was highly dangerous to puerperal women. Its most common effect upon them was to produce a more or less malignant form of septicæmia. He regarded those cases as fortunate which, having been exposed to scarlatinal poison during the puerperal state, developed recognisable scarlet fever. Although it was possible for such cases to have the disease mildly, he believed that it was more commonly severe; he had made *post-mortem* examinations of two such, in which typical puerperal peritonitis was associated with true scarlatina. Concerning diagnosis, Dr. Mahomed held that we must be most lenient in judging of the mistakes of others. Some cases it was impossible to diagnose correctly. He had known cases with normal temperatures on the second day. He wished to know the experience of members concerning the indications afforded by convulsions during the early stages of the disease. In his experience they were almost invariably fatal. With regard to the diagnosis of rubeola, he disagreed with Mr. Cripps Lawrence as to the duration of the premonitory symptoms; he had seen the characteristic enlargement of the glands three or four days before the appearance of the rash. He did not think that rubeola ever desquamated profusely, and had preferred to change his diagnosis when cases thought to be rubeola had so desquamated. He had placed two such cases in the scarlatinal ward without their contracting the latter disease.

Mr. PEPPER, after reviewing the evidence in favour of the disease being due to the agency of micro-organisms, pointed out that it was reasonable to expect that an open wound might admit the infection, and that in such a case the symptoms would develop more rapidly by reason of the direct absorption of the poison. In some instances the period of incubation of surgical scarlet fever had not exceeded twenty-four hours. In his own experience, at the Fever Hospital, cases of surgical scarlet fever had generally done well.

Mr. W. B. OWEN drew attention to the existence of a mode of transmission hitherto overlooked but calling for serious vigilance. In a charity school six children, who sickened simultaneously with the disease, were found to have had access to a bunch of flowers, which was subsequently traced back to a house infected with scarlet fever.

Upon a motion by Mr. PEPPER, seconded by Dr. ALDERSON, the discussion was adjourned to May 15th.

THE TERCENTENARY FESTIVAL OF THE UNIVERSITY OF EDINBURGH.

DURING the present week there is being celebrated in Edinburgh an event which cannot fail to be of interest to every Briton, as well as to all those throughout the world who have at heart the propagation of knowledge, science, and general culture. The capital of the north has witnessed many pageants in its time. It has been the seat of war, siege, and revolution. It has welcomed kings, and sheltered them in their need. It has had its military glories and defeats. It has never, however, had occasion for a celebration of which it has more reason to be proud, than that which it now holds in rejoicing over the completion of its third century of academic usefulness, and commemorating the three hundredth birthday of its University. This great national institution has from its earliest foundation been actuated with the earnest belief in the beneficial effects of widespread human knowledge. It has regarded education as the first requisite for the good of society, it has sought to extend information in all directions, and there is no region of the earth that has not been fructified by its labours. Wherever Scotsmen are—and to what parts of the world do they not penetrate—there some of the good that the Edinburgh University has done will be found, and through them its beneficial influence has been universally disseminated to the advantage of humanity. It has sent culture, and healing, and scientific skill broadcast throughout the nations, and has everywhere made the name of Scotsman synonymous with energy, and knowledge, and power. If Edinburgh cannot boast of wealth, commercial enterprise, and the acquisition of those elements which characterise other large cities of this great empire, it nevertheless contributes richly to the well-being of the nation, and to the successful progress of mankind. A distinguished politician recently demanded of one of its inhabitants, "What is the chief industry of your town?" The reply was, "Our chief industry is education." This, in the absence of the mere acquisition of gain, is the boast and pride of our northern capital, and it is this noble object which has ever animated its efforts, and has attracted learned men from all quarters of the globe to offer their congratulations on the completion of the tercentenary of its University.

Although Edinburgh is the youngest of the four great educational centres which elevate and dignify Scotland, it is more completely than any of them, the production of the national spirit and genius. It is as impossible, as it is unnecessary, for us to enumerate the long roll of eminent and illustrious names which have adorned its history, or the triumphs of discovery and science which have been disseminated through its influence. The list is so long and so brilliant as to be a part of history, and is familiar to all those to whom education and culture are a source of attraction. A proof of the estimation in which the University is held by the world of learning, is now being demonstrated by the gathering which is at present taking place to do it honour. Every quarter of the civilised globe is sending representatives to testify to the respect and admiration in which it is universally held. At its festival is assembling such a phalanx of intellect and distinction as has not been superseded in past history. The most eminent and celebrated delegates are announced from all the British, foreign and colonial learned bodies. No less than seventy-two Universities are to be thus represented, and the countries outside the United Kingdom in which these are situated are France, Germany, Holland, Belgium, Norway, Sweden, Switzerland, Italy, Denmark, Portugal, Russia, Austria, Hungary, Bohemia, Poland, India, America, Canada, New Brunswick, Australia, Brazil, Chili, and the Cape of Good Hope. Besides these, there are representatives from all the leading educational and public bodies, and the literary and scientific societies of Europe. In addition, hundreds of distinguished guests are being entertained by the city, and gracing the academic ceremonial proceedings by their presence. Finally, there have gathered together from all parts of the kingdom multitudes of the alumni and students of their *alma mater*, to demonstrate the gratitude and love which they

entertain for all the benefits they have received at her hands.

This vast concourse of those interested in the pursuit of knowledge are devoting this work to a jubilee on the anniversary of their University's birth. Every day is occupied with ceremonials in its honour, and entertainments which are provided by the authorities and citizens of the town, to their guests, in commemoration of the festival. Occasion is taken to confer on a large number of distinguished theologians, and men of science and letters of all countries, honorary degrees, of which upwards of one hundred and twenty will be conferred with great ceremony, in recognition of their devotion to and success in intellectual pursuits. *Conversaziones*, receptions, and amusements of all kinds are without number, and the public bodies and private citizens of the town vie with one another in dispensing an abundant and welcome hospitality.

Although the University of Edinburgh recognises and promotes all departments of knowledge, there can be little doubt that it has been chiefly pre-eminent in the cultivation of medical science; and the long *rôle* of illustrious teachers, and the beneficial influence these have exercised on this branch of learning, has been admitted by all, and felt throughout the world. The general appreciation of this fact is illustrated by the distinguished list of our own profession who have felt honoured in receiving the complimentary degrees which have been offered them on the present occasion. Amongst those who are to receive the diploma of LL.D., we observe the names of Jenner, Gull, Paget, Bristowe, Clark, Erichsen, Balfour, Barker, Bowman, Keith, Maudsley, Marshall, Sieveking, Acland, Carus, Virchow, Helmholtz, Donders, and Pasteur.

At no period during the history of the University has its influence borne more luxuriant fruit than at the present time, and the fame of its former reputation and genius has attracted to its school unprecedented numbers of pupils. Of late years there have been nearly two thousand students pursuing a medical curriculum within its walls, thus constituting it the largest medical school in the kingdom, and the new hospital and college may rank as the most perfect and complete of their kind in the world. Long may this success in the promotion of our noble science continue to flourish, and be the admiration of all who have at heart the cultivation of its principles. We add our congratulations to those which are justly being accorded during the present week to our great national University, and we earnestly trust that it will long continue to be an enduring source of enlightenment, the promoter of knowledge, the cultivator of genius, the help of the struggling, and the pride of all men who seek to make the world better than it is.

GENERAL CORRESPONDENCE.

THE PSYCHICAL RESEARCH SOCIETY AND "CLAIRVOYANCE."

[To the Editor of the Medical Times.]

SIR,—Dr. Donkin has brought a charge of "untrustworthiness" against the tests adopted by a committee of the Society for Psychical Research in a recent enquiry. It must surely be rash to describe any method or test as untrustworthy *per se*, and without reference to some particular results and conclusions. Thus, suppose the subject of experiment to be the sensibility of the retina after hypnotisation; suppose that the test adopted is to hold up cards at a distance, and to ask the hypnotised person to name them; and suppose that twenty cards in succession are correctly named. It would then be legitimate to conclude that the retina must have *retained* its sensibility; and with reference to that conclusion the test would be trustworthy. But now suppose that under the same conditions the hypnotised person fails to name the cards. It would not, then, be legitimate to conclude that the retina must have *lost* its sensibility; for there are other possible reasons (*e.g.*, mental torpor, or a wish to mislead) which would equally account for the failure; so that with reference to that conclusion the test would *not* be trustworthy. This example sufficiently shows that the trustworthiness of a test is not an independent quality, but must have reference to some conclusion to which the application of the test has led. Now the conclusion to which the committee has been led in the present instance cannot possibly be known to Dr. Donkin.

But Dr. Donkin's rashness has gone further than this. His representation is, that in these experiments, which were on a case of alleged clairvoyance, untrustworthy tests in the way of blindfolding were applied by the committee, and that then the power of vision remained; but that an expert, being introduced, applied trustworthy tests, and that after that the power of vision ceased. It follows that by trustworthy tests Dr. Donkin means, in this instance, tests which effectually bar all power of vision. It is unfortunate, therefore, that the particular tests which he commends as trustworthy by no means fulfilled that condition. For on subsequent occasions, not only these, but decidedly more stringent and complete methods of blindfolding were adopted—methods involving all the points of Dr. Donkin's trustworthy tests, and several others besides—and vision turned out to be still perfectly possible. But, what is more—vision turned out to be possible not only to the alleged clairvoyant, but to a member of the committee, whose eyes were plastered up and bandaged in the precise manner which it seems that Dr. Donkin would have hastily concluded to be efficacious. And—yet one further surprise—the particular additions to which Dr. Donkin attaches such virtue, the old expedients of a pad of cotton-wool and a penny fixed over each eye, so far from barring vision were found actually to facilitate it; for while they afford no security against the presence of minute crevices, the additional darkness and the pressure on the eyeballs seem to give a double chance to the faint rays of light which the crevices admit. Information of this kind can only be obtained by our plan of testing the efficacy of blindfolding from *inside* instead of from *outside*; and this was the essential feature of the method of enquiry which Dr. Donkin so contemns. Not, of course, that the standard of efficacy thus obtained is absolute. A practised person might succeed in performing feats with his eyes which could not be imitated by an amateur; and this supposition seems specially applicable to the case of a hypnotised "subject," inasmuch as he naturally keeps his eyes in a position which is favourable to seeing upwards through crevices, and which is a most strained and fatiguing one to a person in a normal state. But though not exhaustive, the method was, at any rate, amply sufficient to show that the tests represented by Dr. Donkin as trustworthy were thoroughly untrustworthy; for they failed to block even quite unpractised powers of vision.

From such tactics as Dr. Donkin has here pursued, those whom he attacks have everything to gain. The only person likely to complain is the "expert," whose description of a fragment of our proceedings seems (I am sure without his intention) to have inspired the attack. For through no fault of his own, the request which he has courteously renewed, to be allowed to assist at some more of our experimental work, has been made by his friend's indiseretion extremely difficult to grant. Is there a laboratory in England where the chance would be given a second time for a course of experiments to be attacked before its results have been recorded, on the strength of a casual description of one of its inchoate stages?

I am, Sir, yours, &c.,

April 13th, 1884. EDMUND GURNEY.

THE MERCHANT SHIPPING BILL.

[To the Editor of the Medical Times.]

SIR,—Having recently (*Land and Water*, March 22nd) written at length on the Merchant Shipping Bill, in this paper I need only give very briefly a few of the more glaring conspicuous errors of omission and commission of the Bill now before Parliament. For obvious reasons I shall deal principally with the "living machinery," to which little or no attention has been paid by the President of the Board of Trade.

1. Scurvy, which seems to be a veritable *bête noir* to the officials at Whitehall, is not even mentioned; from this one might naturally infer that the disease is no longer met with. Such, however, is not the case, as may be gathered from the last report of the Seamen's Hospital Society, in which it is stated that the number of cases admitted during the year 1882, though lower than those of the ten preceding years, contrasts very unfavourably with the returns of 1873; and in an official report issued by the Marine Department of the Board of Trade, it is shown that the average number of scurvy outbreaks reported since 1875 has been 86, whilst in 1869 and 1870 only 22 cases had been recorded. Notwithstanding the increased prevalence of the disease, I learn with regret that "it is not at present considered desirable to insert a statutory scale of diet in the articles of agreement with crews serving on long voyages, though it may possibly be necessary at some future period." Such "masterly inactivity" on the part of the Marine Department of the Board of Trade, in thus compelling year after year our merchant seamen "to stew in their own juice," cannot be considered very commendable, the more especially when it is remembered that an obligatory dietary scale, as I have so repeatedly pointed out in the *Times*, would be the means of completely "stamping out" the disease. On this point all authorities are agreed.

2. The inspection of provisions is the second point to which I would draw attention. The emigration officers are *supposed* to inspect the provisions on board vessels taken up to convey emigrants, but only the stores for the use of emigrants, and not those for the crews. Re-shipment of provisions should be prohibited; a stop should also be put to the plan of provisioning first-class merchantmen going long ocean voyages with the surplus stores of the steamship companies. It is not at all uncommon for stores to be taken twice to the Antipodes before being consumed; they are thus subject to constant change of climate, &c., which it is obvious cannot improve them. Tinned provisions, so universal on shore, would be a wholesome change for the salt beef and salt pork, varied only by salt pork and salt beef. One word with regard to alcoholic beverages. "Jack" likes his glass of grog, and at certain times, *e.g.*, when exposed to wind and rain, hour after hour, it should not be withheld. Total abstinence on board ship has, I think, been pushed a little too far. That wine "gladdeneth the heart of man" is approved on the highest authority, and that it is a true food was stated by Dr. Druitt, and proved beyond "the shade of a shadow of a doubt" by Dr. Parkes in his experiments at Netley.

3. The total abolition of all permissive clauses relating to the inspection of seamen, in order to ensure efficient manning and safety of vessels.

4. An extension of the Contagious Diseases Acts to the waterside parishes of the chief mercantile ports.

5. The appointment of legally qualified medical men on every ship bound to carry a surgeon. As this is a subject to which you have very recently drawn attention, I need not further expatiate upon it.

Such are a few of the short-comings of the Merchant Shipping Bill, of which the Marine Department of the Board of Trade does not appear to be cognisant, and, although I have for years past persistently drawn attention to the subject, believing with George Eliot, "That it is not only laying hold of a rope, we must go on pulling," I would remind these officials that—

> "Omission to do what is necessary
> Seals a commission to a blank of danger;
> And danger, like an ague, subtly taints
> E'en when we sit idly in the sun."

I am, Sir, yours, &c.,

W. DOMETT STONE.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

[To the Editor of the Medical Times.]

SIR,—I shall be obliged if you will kindly permit me to make known through your columns that an Association is being formed for the purpose of promoting the interests of Members of the Royal College of Surgeons of England. The whole government of the College is in the hands of the 1,100 Fellows, the 16,000 Members being absolutely precluded from expressing their views except through the medium of the public press. Speaking generally, the objects of the Association will be to obtain a voice in the management of the College, by securing a General Meeting of the Fellows and Members of the College every six months; to promote the dignity and value of Membership of the Royal College of Surgeons of England; and to concern itself with the welfare of members and of the profession at large. I shall be glad to receive the names of any members who may be willing to co-operate.

I am, Sir, yours, &c.,

JAMES ROCHEID FORREST.

59, *Lowden Road, Herne Hill, London, S.E.*
April 16th, 1884.

MEDICAL NEWS.

RUSSIAN MEDICAL LITERATURE.

DR. MAX BACH, writing in the *Deutsche Medicinische Wochenschrift*, of the 28th February, observes, that it is scarcely known in Germany, that a noteworthy Russian medical literature exists. Only a few journals have of late years began to report on Russian works, and in the great medical retrospects, such as Hirsch and Virchow's Jahresberichte, we may look in vain for any account of a Russian medical work, or with few exceptions, any reviews of the Dorpat dissertations, although these are written in German, are accessible in the University libraries, and are declared by Hyrtl to be classical productions, as regards minute anatomy. On the other hand, every small production in Swedish, Danish, or Polish medical literature is carefully registered, and reported upon. The natural conclusion would be that Russian medical literature is so insignificant, that the Germans incur little loss by not being furnished with any notice of it. But this is far from being the case. The Russian monthly journal, *Medicinische Rundschau*, gives a list of the journal articles which appeared during 1882, and the first half of 1883, but unfortunately this does not include the transactions of medical societies, several of which are published periodically, and contain numerous excellent articles. According to this statement, Russia possesses seventeen medical journals, a few of which are confined to special subjects, such as psychiatry, and neurology, medical jurisprudence, military hygiene, &c. In 1882, they contained contributions from 477 writers, and in the first half of 1883, there were 292 authors. If we add to these the transactions of several medical societies, and numerous excellent theses, besides independent works and brochures, we may certainly assume that nearly a thousand independent medical productions are annually printed in Russia. Admitting that many of these publications are taken from French or German journals, and that others are of but little value, yet there are hundreds of communications of importance, of which neither Germany, nor the medical world at large, knows anything whatever. This omission is so complete, that the Russian translators of English, French, or German manuals, are compelled to add long appendices, in order to include the Russian contributions.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of the Examiners on the 10th instant, and when eligible will be admitted to the pass examination, viz:—Messrs. W. H. R. Rivers, H. J. Fylden, C. J. Davenport, W. H. Hamer, H. C. O. Schofield, and B. W. Quartley-Papaflo, of St. Bartholomew's Hospital; J. J. Clarke, of St. Mary's Hospital; G. C. W. Wright, H. M. Doyle, C. F. Wright, and William Parker, of London Hospital; William Goos, W. J. Colborne, and Edward Edwardes, of Charing Cross Hospital; W. A. Furmstone, H. L. Williams, and W. R. Clay, of Middlesex Hospital; J. F. Calvert, and H. P. Helsham, of St. Thomas's Hospital; and H. W.

Drew, of Guy's Hospital. Four candidates having failed to acquit themselves to the satisfaction of the Board of Examiners were referred to their studies for three months. Passed on the 15th instant:—Messrs. F. W. Green and G. L. Turnbull, of St. Bartholomew's Hospital; J. T. Thomas and L. A. Bidwell, of St. Thomas' Hospital; A. J. Gedge, A. E. Richardson, J. Godding, C. F. Fenten, and A. B. Roxburgh, of London Hospital; A. Buckell, S. E. Holder, C. W. Jeeks, and S. P. Hosegood, of University College Hospital; H. R. Davies, L. Remfry, and G. de V. Belson, of St. George's Hospital; C. F. Routh Fisher, of Guy's Hospital; W. R. Ackland, of Charing Cross Hospital; W. H. B. Moore, of King's College Hospital; and H. B. Brackenbury, of Westminster Hospital. Three candidates were referred for three months. The following candidates passed their primary examination on the 16th instant:—J. H. Tonking, C. T. Quiller, E. C. Stabb, H. J. Smyth, of St. Thomas's Hospital; A. C. Richards, H. J. Hawthorn, H. G. Lys, L. C. E. Calthrop, of London Hospital; F. H. Andrews, of St. Bartholomew's Hospital; J. O. Tunstall, F. S. Toogood, of University College Hospital; T. W. Gibbard, G. C. Jones, A. E. Hensley, of King's College Hospital; H. S. Cooper, of Westminster Hospital; C. W. Hogarth, H. V. Rake, of Guy's Hospital; and H. E. Mann, of St. George's Hospital. Six candidates were referred for three months. The following condidates passed their primary examination on the 17th instant:—S. A. Tidey, of St. Mary's Hospital; J. S. W. Chitty, of Charing Cross Hospital; C. C. Burt, of Westminster Hospital; F. F. Burghard and G. Black, of Guy's Hospital; A. W. Pearse and S. B. Cook, of St. Thomas's Hospital; A. J. Macnab and R. J. Stephens, of King's College Hospital; P. J. De Nyssen, of St. George's Hospital; N. R. Howse and W. D. Calvert, of London Hospital; and W. P. May and A. J. Lang, of University College Hospital. Two candidates were referred for three months, and one for six months. 256 candidates presented themselves for the examination just completed, as compared with 222 at the corresponding period of last year; of this number 45 were referred to their anatomical and physiological studies for three months, and three for six months, making a total of 48 referred candidates.

Royal College of Surgeons.—It is stated that nearly 250 candidates have just entered in their names for the final examination for the diploma of membership of this institution.

The Library of the Royal College of Surgeons.—This library will be closed to day (Friday, April 18th) for the purposes of the examinations.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 10, 1884:—

McCarthy, Philip Augustine, Victoria Road, Battersea Park.
Russell, Robert Hamilton, King's College Hospital.
Vernon, Fredk. Wm., Manor House, Poplar.

King and Queen's College of Physicians in Ireland.—At the monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 10th, 11th, 12th, and 13th, 1884, the following candidates were successful:—For the *Licence to Practise Medicine*—Henry Bullen Beatty, Dublin; John Craig, Dublin; Godfrey Oldfield Cuppaidge, Kingstown, Dublin; Robert Hickson, Kingstown, Dublin; Benjamin Rigby Johnston, Ambleside, Westmoreland; Christopher Peter Kelly, Navan, Co. Meath; Margaret Morier, Aberdeen, N.B.; Henry Ross Todd, Dublin; George Robert Williams, Larne, Co. Antrim; Samuel Richard Wills, Rathkeale, Co. Limerick. For the *Licence to Practise Midwifery*—Henry Bullen Beatty, Dublin; Godfrey Oldfield Cuppaidge, Kingstown, Dublin; Robert Henry, M.D., R.M.I., Donaghadee; Robert Hickson, Kingstown, Dublin; Benjamin Rigby Johnston, Ambleside; Margaret Morier, Aberdeen, N.B.; Patrick Neary, Ardee, Co. Louth; George Bobert William, Larne, Co. Antrim; Samuel Richard Wills, Rathkeale, Co. Limerick. The undermentioned Licentiates in Medicine of the College, having complied with the by-laws relating to membership pursuant to the Supplemental Charter of December 12th, 1878, were duly enrolled members—John Christal, *Lic. Med.* 1876, Cootehill, Co. Cavan; Charles Scovell Grant, *Lic. Med.* 1877, Gold Coast Colony, West Africa.

At the monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday and Thursday, April 7th, 8th, 9th, and 10th, the undermentioned Candidates were successful:—For *the Licence to Practise Medicine*—Thomas George Drake, Clonskeagh, Dublin; George Albert Dreaper, Castlecomer, Co. Kilkenny; Michael Edward Keating, Enniscorthy, Co. Wexford; Richard Murphy, Balbriggan, Co. Dublin; William Edmond O'Connor, Ferenure, Co. Dublin; Joseph Arthur Purdon, Belfast; John Robinson, Kilrathmurray, Co. Kildare; Frederick Joseph Wetherall Stoney, Cloughjordan. For the *Licence to Practise Midwifery*—Thomas George Drake; George Albert Dreaper; Michael Edward Keating; John E. McCraith, Smyrna, Asia Minor; Richard Murphy; Joseph Arthur Purdon; Frederick J. W. Stoney. The following candidate was examined and passed in the subjects of the First Professional Examination:—Frederick Mandel.

At a meeting of the President and Fellows, held on Friday, April 4th, 1884, the following were unanimously elected Honorary Fellows of the College:—Henry W. Acland, M.D. Oxon, C.B., Regius Professor of Physic in the University of Oxford, and President of the General Medical Council; Thomas Crawford, M.D. Edin., Director-General of the Army Medical Department. On the same occasion, the undermentioned Licentiate in Medicine and Member of the College was elected a Fellow:—William Josiah Smyley, M.D. Dub., Gynæcologist to the City of Dublin Hospital.

Royal Medical Benevolent College.—A third Perpetual Presentation to the Royal Asylum of St. Anne's Society, in favour of the orphan daughters of medical men, has been established by Mr. J. F. France, the right of nomination being vested in the members of the Council of the Royal Medical Benevolent College, who will immediately proceed to fill it up. Application should be made to the Secretary, at the office of the College in Soho Square.

Naval Medical Department.—The following appointments are announced:—Staff-Surgeon—William H. Stewart, to the *President*, additional, for temporary service at Victoria Yard. Surgeons—James Porter, to the *Alexandra*, additional, for service with the Marine battalion (appointment in lieu of Street, to the *Euryalus*, additional for such duty); John Wilson, M.D., to Sheerness Dockyard, *vice* Lynch, to the Malta Hospital; James B. Clibborn, to the Plymouth Hospital, *vice* Wilson; W. G. Jack, to the *Lord Warden*, *vice* Lennox. Inspector-General of Hospitals and Fleets, James N. Dick, has reported at the Admiralty his arrival in England, from Malta, on promotion.

Dermoid Cyst suspected from Microscopical Examination of the Urine.—The patient was a female, aged about 50. Every two, three, or four weeks she had, for many years, passed an enormous quantity of whitish lumps with her urine, suffering at the same time from excruciating pains. This urine appeared "flocky," and presented a glassy shining appearance. Under the microscope it proved to be composed almost entirely of horny epidermal substance, with a comparatively large number of crystals of sodic urate in the form of sheaves. Its composition, taken in conjunction with the symptoms, was believed to indicate the existence of a dermoid cyst, which, from time to time, discharged its contents into the pelvis of the kidney. With the exception of chronic laryngitis, and, at times, of hæmorrhoids, the patient was otherwise in good health.—*New York Medical Journal*, January 12th.

St. John Ambulance Association.—With the concurrence of the Principal Medical Officer, Devonport Garrison, classes for the troops have recently been held in connection with the St. John Ambulance Association, attended by officers, non-commissioned officers, and men of all ranks. Surgeon W. B. Allin, M.B., A.M.D., acted as lecturer, and Surgeon-Major Alex. Turner, A.M.D, as examiner. The latter has forwarded to St. John's Gate a most eulogistic report on the excellence of the knowledge displayed,

especially as regards practical work, and the first treatment of the wounded. This is shown by the fact that the whole of the candidates for examination, which took place in the presence of the Principal Medical Officer, are recommended for certificates, the members being as follows:—Royal Marines, 6; 2nd Batt. South Lancashire Regt. 22; 2nd Batt. Highland Light Infantry, 34; and Commissariat and Transport Corps, 12. Among the officers are Lieut.-Colonel S. J. Graham, C.B; Major H. J. L. Norcock; Captain R. H. Hall; Lieut. E. A. Snow, and Assistant-Commissary-General J. A. Scott.

Sir Patrick Dun's Hospital, Dublin.—The number of in-patients admitted last year was 1,262, and of out-patients treated 5,626. During the last five years 7,850 accident cases have been treated. The average daily expense of each patient during 1883 was, food, 12·1 pence; medicine and appliances, 2·5 pence; stimulants, 0·8 pence.

Glasgow Dispensary for Skin Diseases. — The annual meeting of this charity was held on the 9th instant. The medical report showed that during the past year 1,208 new cases were treated, of which 90 of the most serious were transferred and treated in special wards in the Western Infirmary. Since the opening of the dispensary in 1861 the total number treated amounted to 27,073. The financial statement showed that during the year the subscriptions collected were £268, and that the ordinary expenditure was £348; the debt on the house property had been reduced from £1,054 to £761.

Glasgow Royal Infirmary.—At a meeting of the directors of the Royal Infirmary, held on the 10th instant, it was resolved to increase the number of surgeons in the institution to six, owing to the large number of surgical wards, and to reduce the number of physicians to four. There are twelve medical wards, and this arrangement gives three wards to each physician.

Glasgow Hospital and Dispensary for Diseases of the Ear.—The annual meeting was held on the 9th instant. The report shows that the institution is in a most prosperous condition. During the past year 2,600 cases were treated, many of them being of a serious nature. After paying all expenses, a balance of 250*l.* remained in hand. An expression of regret was recorded, that owing to infirm health, Dr. Cassel's had been compelled to retire from the appointment of aural surgeon to the institution.

A Hospital for Newbury.—The scheme for establishing a hospital at Newbury, which has been instituted and earnestly pushed by Dr. Douglas, is now in a fair way towards realisation. Contributions amounting to upwards of 3,000*l.*, have been promised, and on Wednesday the 9th instant, Earl Carnarvon, who has accepted the office of President, presided over a large meeting, convened for the purpose of placing the proposal on a sound footing.

Netley Hospital.—On vacating the post of Governor and Commandant of the Royal Victoria Hospital, Sir C. Pearson issued an order in which he says:—"In taking leave officially of the officers, non-commissioned officers, and men belonging to and connected with this hospital, he begs to assure them that he does so with sincere regret, and, he hopes, with feelings of mutual regard and esteem. To the heads of departments, past and present, and to all who have been associated with him in administering the affairs of the station, Sir Charles Pearson desires to offer his warmest thanks for their assistance and friendly co-operation; nor can he part from the members of his own clerical staff without recording in this, his last Station Order, his sense of their uniform soldierly bearing and admirable conduct. That every success may attend the Army Medical Department, and that the future organisation of Netley Hospital may be of benefit alike to the army and to the medical service, is the earnest wish of their very sincere friend, its last Governor and Commandant."

Hospital Nomenclature.—The Metropolitan Asylums Board has forwarded circular communications to the various local bodies of the metropolis, informing them that in future the board's hospital at Hampstead will be known as the North-Western Hospital, that at Fulham as the Western, that at Stockwell as the South-Western, that at Deptford as the South-Eastern, that at Homerton as the Eastern, and that the proposed hospital at Winchmore-hill will be known as the Northern Hospital.

The Blind, Deaf-Mutes, and Idiots in Italy.—The *Annali Universali di Medicina* for March publishes a long statistical report on the distribution of blindness, deaf-dumbness, idiocy and cretinism in Italy. We have only space for the general results. At the census of 1881, the population numbered 28,495,628 (14,365,383 males and 14,194,245 females). Of these there were returned 21,718 (12,147 males and 9,571 females) as *blind*, viz., 76 per 100,000 (85 males to 67 females). The *deaf-mutes* amounted to 15,300 (8,707 males and 6,593 females) in number, or 54 per 100,000 (61 males to 46 females). Of idiots and cretins there were 19,671 (11,573 males and 8,098 females) or 69 per 100,000 (81 males to 57 females). Thus, in all these conditions the male sex largely predominates. In blindness and deaf-mutism the numbers have decreased as compared with the two preceding censuses; and with respect to deaf-mutism the dimunition has been constant and very great. The number of idiots and cretins have, on the other hand, slightly increased as compared with the census of 1871.

Hydrophobia in Paris.—On depositing at the *Académie de Médecine* a copy of his *Rapport sur les cas de Rage Humaine qui se sont produits dans le Département de la Seine pendant les années* 1881-83, Dr. Dujardin-Beaumetz observed that it contained the analysis of the 34 cases of hydrophobia which have occurred in Paris during the three years in the following proportion, viz.:—21 in 1881, nine in 1882, and four in 1883. All means of treatment that had been tried had, as heretofore, proved useless; but the vigorous action of the police in regard to stray dogs had proved most effectual in diminishing the number of cases.—*Bullétin de l'Académie*, April 8th.

Alcoholism in St. Petersburg.—The *St. Petersburger Medicinische Wochenschrift*, of April 5, quotes from the Russian Medical Journals some interesting figures in respect to the number of cases of alcoholism in the St. Petersburg hospital. Thus Dr. Nikolajew furnishes the results observed at five of the largest civil hospitals during eight years (1877-82)—including under the title alcoholism, delirium tremens, periodical drunkenness, and acute and chronic alcoholism. The entire number of cases amounted to 5,396, with a mortality of 6·1 per cent, the maximum number of cases occurring between July and September of each year. The cases rose as high as 1,048 in 1877, and 1,092 in 1879 (the beginning and end of the Turkish war), and fell in 1881 to 590, to rise again in 1881 to 930. Dr. E. Bary deriving his material from the Marien-Magdalenen Hospital, furnishes a table of 1,652 cases which were treated therein during 30 years, most cases occurring during the warmest months of each year, the maximum month being August. This circumstance Dr. Bary explains by the gains of the working classes being greater in the summer, while during the light warm evenings they indulge in greater excesses. Great differences in the numbers of different years are accounted for by the variations in social and political circumstances.

The Bacillus of Typhoid Fever.—The Council of the Linnean Society of New South Wales are offering a prize of 100*l.* for the best original essay on the above subject. The author must confine himself to facts which he has himself observed under methods which are to be clearly explained. Each essay must be in English, must be distinguished by a "motto," accompanied by an envelope containing the author's name, and must be delivered at the Society's house, Phillip-street, Sydney, on or before December 31st, 1884.

Syphilis Returns from the Royal Navy Health Report for 1882.—Of this disease in the primary form, 1,941 cases were under treatment during the year 1882, and in the secondary form 775, the former being in the ratio of 44·64 per 1,000, and showing a decrease of 3·69 per 1,000 when compared with the preceding year; and the

latter in the ratio of 17·82 per 1,000, and being an increase equal to ·55 per 1,000. On the Home Stations, it is to be gathered from the returns, there was a decrease of primary syphilis amounting to 2·28 per 1,000. On the Mediterranean, a decrease of 22·95 per 1,000; on the North America and West Indies, an increase of 16·08 per 1,000; on the South-east Coast of America, a decrease of 17·38 per 1,000; on the Pacific, an increase of 13·01 per 1,000; on the West Coast of Africa and Cape of Good Hope, an increase of 6·04 per 1,000; on the East India, an increase of 2·81 per 1·000; on the China Station, a decrease of 7·02 per 1,000; on the Australia Station, a decrease of 2·5 per 1,000; and in the Irregular Force, an increase of 3·22 per 1,000. Twenty-two persons were invalided for primary, and fifty-four for secondary, syphilis, during the year under notice.

Cremation.—A model of the crematorium used for the first cremations in England in modern times has recently been added to the Parkes Museum of Hygiene. The Council of the Parkes Museum propose to organise a representative collection of models of drawing apparatus used for cremation during the coming summer. Any persons willing to lend such models are requested to communicate with the Secretary at the Museum, Margaret Street, W.

Presentation to Mr. Hird, F.R.C.S.—A numerous gathering of friends, colleagues, and former pupils of Mr. Francis Hird, F.R.C.S., took place on Tuesday, week at Charing Cross Hospital Medical School, on the occasion of a presentation to him of a testimonial upon his retirement from the office of Dean, in recognition of his valuable services to the Medical School, extending over a period of forty-five years. Professor Huxley, P.R.S., presided, supported by Sir Joseph Fayrer, and Sir Guyer Hunter, all of whom were former pupils of Mr. Hird, at Charing Cross Hospital. The testimonial consisted of a service of plate, and an illuminated address on vellum.

The Distribution of Bacteria in Water.—The much-discussed question, says *Nature*, as to the purification of water in rivers "by itself"—that is, by the mere fact of its motion—seems to have entered into a new phase. Dr. Pehl, at St. Petersburg, has recently made a series of bacterioscopic measurements on the waters of the capital, which are summed up in the last issue of the *Journal of the Russian Chemical Society*. The water of the Neva itself appears to be very poor in bacteria, namely, 300 germs in a cubic centimetre. After heavy rains this number rises to 4,500, and to 6,500 during the thawing of the river. The canals of St. Petersburg, on the contrary, are infected with bacteria, their number reaching 110,000 in a cubic centimetre, even during good weather. The same is true with regard to the conduits of water for the supply of the city. While its chemical composition hardly differs from that of the Neva (by which they are supplied), the number of bacteria reaches 70,000, against 300 in the water freely taken from the river; and the worst water was found in the chief conduit, although all details of its construction are the same as in the secondary conduits. Dr. Pehl explains this anomaly by the rapidity of the motion of water, and he has made direct experiments in order to ascertain that. In fact, when water was brought into rapid motion for an hour, by means of a centrifugal machine, the number of developing germs was reduced by 90 per cent. Further experiments will show if this destruction of germs is due to the motion of the mass of water, or to molecular motion. The germs, among which Dr. Pehl distinguishes eight species, are not killed by immersion into snow. As the snow begins to fall, it brings down a great number of germs, which number rapidly diminishes (from 312 to 52 after a three hours' fall of snow, on January 21st, 1884), while their number on the surface of the snow increases, perhaps in consequence of the evaporation of snow, or of the condensation of vapour on its surface.

Mortality in Russia.—The paucity of medical men in Russia, and the habits of the rural population combine to make the Russian death-rate the highest in Europe. Excepting the two capitals, where there are many German physicians, there is no district in the empire sufficiently supplied with doctors. According to the latest returns the average duration of life in Russia is only 26 years. The mortality among infants is frightful. More than 60 per cent. die before they reach their fifth year. Nearly 2,000,000 children perish every year. Of 8,000,000 boys only 3,770,000 attain the age of military service, that is to say, their 25th year; and of these at least 1,000,000 are found, by reason of shortness of stature and weakness of body, unfit for military duties.

APPOINTMENTS.

Ashmead, George, L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer to the Kingswinford No. 4 District, Stourbridge Union.

Babst, Charles T. U.—Medical Officer to the Howden District, Auckland Union.

Hunt, G. A., L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer to the South Hornsey District, Edmonton Union.

Mason, A., L.R.C.S. Ire., B.M. Dub.—Assistant Resident Medical Officer to the Workhouse, Chorlton Union.

Matthews, Arthur, M.R.C.S. Eng., L.S.A.—Medical Officer to the Cleaton District, Whitehaven Union.

McLauchlan, T. G., M.B., C.M., Edin.—Medical Officer to the Halesowen District, Stourbridge Union.

Pritchard, S. E., L.R.C.P. Lond., L.S.A.—Medical Officer to the First District, St. George-in-the-East Parish.

Pughe, T. W. O., M.B., M.R.C.S.—Honorary Medical Officer to the Liverpool North Dispensary.

Westby, George, M.K.Q.C.P.I., &c.—Honorary Assistant Surgeon to the Liverpool Hospital for Cancer and Skin Diseases.

Wholey, T., L.R.C.P., M.R.C.S.—Resident Accoucheur to the London Hospital.

VACANCIES.

Birmingham General Hospital.—Resident Surgical Officer, &c. (*For particulars see Advertisement.*)

Cheshire County Asylum, Parkside, Macclesfield.—Medical Superintendent. Salary, £500 per annum, with furnished house, &c. Candidates must be duly qualified and registered Medical Practitioners. Full particulars can be obtained on application. Applications and testimonials, with 30 printed copies of the latter for circulation among the committee, to be sent to Mr. A. C. Procter, on or before May 3rd.

Gateshead Union.—Medical Officer for the East District, in succession to Mr. Douglas, resigned. Area, 1,060 acres. Salary, £50 per annum.

Liverpool Infirmary for Children, Myrtle Street.—House Surgeon. Salary, £85 per annum, with board and lodging. Applications, with testimonials, to be sent on or before April 19th.

Okehampton Union.—Medical Officer for the North Tawton District, in succession to Mr. Norman, resigned. Area, 24,560 acres. Population, 4,050. Salary, £62 10s. per annum.

Parochial Board of Kirkcowan.—Qualified Medical Practitioner. Salary, £52 per annum. Unmarried candidates preferred. Applications, with testimonials, to be sent to Peter Gordon, Inspector of Poor, on or before May 1st.

West End Hospital, 73, Welbeck Street, London, W.—Out-Patient Department Physician. Applications, enclosing not more than three recent testimonials, to be sent to the Secretary before April 21st.

DEATHS.

Bond, Harman Reed, Surgeon-Major, retired, Bengal Army, at Teignmouth, on April 7th, in his 73rd year.

Joseph, Thomas Morgan, M.R.C.S., L.R.C.P., late of Gladisville, near Sydney, Australia, on April 3rd, in his 41st year.

NOTES, QUERIES, AND REPLIES.

THE HIND FUND.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—Dr. Clement Godson, £2 2s.; H. Royes Bell, Esq., £1 1s.; Dr. Cooper Crawford, £1 1s.; R. Maitland Coffin, Esq., £1 1s; John Deane, Esq., £1 1s.; T. F. Gandar, Esq., £1 1s.; T. Lawrence Read, Esq., £1 1s.; Dr. Henry J. Strong, £1 1s.; W. Baylie, Esq., 10s.; W. Jeyn, Esq., 5s. The fund is now closed.

University of Edinburgh.—The following congratulatory address of the Royal College of Surgeons of England was presented on the 17th instant to the above University, viz.:—"The President, Vice-President, and Council of the Royal College of Surgeons of England hereby offer their warmest congratulations to the University of Edinburgh, on its attaining the three hundreth year of its existence. They avail themselves of this auspicious occasion to acknowledge the great public benefits rendered in the past by

this ancient University in the promotion of education, the encouragement of learning, and the cultivation of science. They desire especially to accentuate their acknowledgment of the prominent position held by the University in whatever relates to the accumulation and diffusion of medical and surgical knowledge. They trust that in the centuries to come, the University of Edinburgh may, with other like institutions, long pursue its honourable career, and fulfil its high destiny."

C. J. Egan, Esq., King William's Town, South Africa.—Letter and enclosure received with thanks.

Dr. John Drysdale, Port Chalmers, Opago, New Zealand.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

The Editor, Sanitary Engineer, New York; The Registrar-General, Edinburgh; Sir Edmund Lechmere, London; The Editor, British Medical Journal, London; The Secretary, Apothecaries' Society, London; Dr. Ewart, London; Dr. Williams, Llandudno; Dr. Larmuth, Hackney; Dr. Jones, New Orleans; Dr. J. H. Clarke, London; Dr. J. B. Jardine, Chatham; Mr. Ruspini, Knutsford; Dr. George Harley, F.R.S., London; Mr. Edmund Gurney, London; Mr. Taneyhill, Baltimore; Dr. Fowler, London; The Editor, The Schoolmaster; Mr. T. M. Stone, London; The Hon. Secretary, Hunterian Society, London; Dr. Willoughby, London; Dr. Hughes Bennett, London; Mr. Robert Freeman, London; Mr. J. R. Forrest, Herne Hill; The Secretary, Royal Institution, London; The Secretary, Royal Medical and Chirurgical Society, London; The Hon. Secretary, Clinical Society, London; Dr. Norman Kerr, London; The Secretary, Medical Faculty, University of Aberdeen; Dr. Domett Stone, London; Dr. J. W. Moore, Dublin; Messrs. G. Street & Co., London; The Hon. Director, Anthropological Institute of Great Britain and Ireland, Dr. Sturges.

BOOKS RECEIVED—

Die Diphtheritis und ihre Behandlung, von Dr. Hübener—Epidemics, by G. Waters—Transactions of the Medical Association of the State of Missouri—Contagious and Infectious Diseases Measures, by J. Jones, M.D.—Annual Report of the Wilts County Asylum for 1883—Clinical Aspects of Cerebral Syphilis, by H. C. Wood, M.D.—The Utility and Morality of Vivisection, by G. Gore, LL.D., F.R.S.—Address, by W. T. Gairdner, M.D., LL.D.—Anatomy of the Inguinal and Femoral Regions, by Edward L'E. Ledwich—Corpulence and its Treatment, by Dr. Wilhelm Ebstein—Year-book of Therapeutics, by R. W. Amidon, M.D.—Year-book of Surgery, by C. H. Knight, M.D.—Annual Report of the Staffordshire County Lunatic Asylum for 1883—Report, &c., of the Port of London Sanitary Committee—Opinions of the Press on the London Municipal Government.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt fur Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Record—The Journal and Hospital Gazette—New York Medical Journal—Students' Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—The Planet—Weekblad—Maryland Medical Journal—The Glasgow Medical Journal—Medical Annals of Baltimore—The Journal of Anatomy and Physiology—The Australian Medical Gazette—Revue des Sciences Médicales—Bulletins et Mémoirs—The Southern Clinic—The Hampshire County Advertiser, April 9th—The Essex Telegraph, April 12th—Revue de Médecine—Revue de Chirurgie—The Journal of Nervous and Mental Diseases—The Journal of the Vigilance Association—The Canada Lancet—The Dublin Journal of Medical Science—The Journal of the British Dental Association—The Canadian Practitioner—The Practical Confectioner.

APPOINTMENTS FOR THE WEEK.

April 19. *Saturday* (*this day*).

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

21. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London.—Dr. Whipham, on "Suppurative Disease of the Stomach;" Dr. Joseph Ewart (Brighton), on "The Treatment of Simple and Sloughing Dysentery by large doses of Ipecacuanha, given morning and evening only." At 8 p.m. Mr. J. Sampson Gamgee (Birmingham) will show "A New Sponge to abolish Sponge Infection."

22. *Tuesday.*

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute of Great Britain and Ireland, 8 p.m.—First Meeting in the New Rooms, at No. 3, Hanover Square. The following will be the order of business:—The Marquis of Lorne, K.T., G.C.M.G., &c., "Exhibition of a Collection of Ethnological Objects from Canada;" Sir Reginald Owen, K.C.B., F.R.S., "Note on a Portrait of an Aboriginal Tasmanian;" Prof. A. H. Keane, B.A., on "The Ethnology of the Sudan." The Chair will be taken by Prof. Flower, LL.D., F.R.S.

Royal Institution, 3 p.m.—Dr. Klein, "Nerve and Muscle."

Royal Medical and Chirurgical Society, 8.30 p.m.—Mr. F. B. Jessett, "An Enquiry into the Cause of the Increase of Cancer in England and Wales;" Mr. C. Macnamara, "Epiphysitis;" Mr. F. J. Gant, "A Pelvic and Parietal Tumour of the Abdomen; Removal by Operation and Recovery."

23. *Wednesday.*

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Hunterian Society, 8 p.m.—Dr. Hughlings Jackson, "Case of Charcot's Joint Disease in Locomotor Ataxy;" Dr. Fletcher Beach, "On Atrophy of the Brain."

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution, 3 p.m.—Prof. Dewar, "Flame," &c.

25. *Friday.*

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society of London.—A Meeting will be held, but no Agenda Paper has yet been issued.

Royal Institution, 8 p.m.—Mr. W. Besant, "Art of Fiction."

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The Medical Times *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES

AND GAZETTE.

No. 1765. LONDON, SATURDAY, APRIL 26, 1884.

LIVERPOOL MEDICAL INSTITUTION

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ON THE CHOICE OF ELECTRIC BATTERIES.

By G. V. POORE, M.D., F.R.C.P., &c.,
Physician to University College Hospital.

The question, "What kind of battery do you advise?" is so frequently put to me by medical friends that I feel prompted to say a few words on the principles which should guide us in the choice of batteries. When a practitioner buys an electric battery, he wants, above all things, a reliable instrument, an instrument which will work effectually, even though it may have been lying by, disused, for months. To attain this end, the battery must be of the simplest possible construction, and must be furnished with elements which are constant in action, and not liable to deteriorate quickly by evaporation.

I do not advise the combination of Galvanic and Faradic batteries in the same box, and mainly for this reason, that the combination adds to the complexity of construction; that the liability to get out of order is increased, and that if one part needs repairs the owner is obliged to send the entire apparatus to the instrument maker. The advantages of having the two instruments combined are not materially greater than having them side by side, and for purposes of transport the combined instrument offers few real advantages.

First, as to the *galvanic battery*. The best elements are the Leclanché elements, or one of the modifications of them which are now made. The elements should be small, and the case which contains them should be strong and light, and furnished with a strong useful handle, such as can be *comfortably* held in the hand. This last desideratum is not possessed by any battery with which I am acquainted.

It is not necessary to have more than 20 or at most 30 elements in the same box. For myself I now always buy twenty-cell batteries. These are sufficient for the great majority of cases, and, if more power is needed, it is easy to connect two or three batteries together.

Avoid accessories in combination with the battery. The current reverser and galvanometer should be purchased as separate apparatus, and placed in circuit when required. The reason for this is obvious. The risk of failure with batteries is very largely in proportion to the number of *junctions* which occur in the circuit. In the ordinary battery, with the ordinary accessories, there are four junctions for the reverser and two junctions for the galvanometer, and if these apparatus be permanently in circuit they afford at least six serious obstacles to the passage of the current, and it need not be said that delicate apparatus made with metal easily corrodes and spoils when exposed to the fumes of a battery, or, indeed, to the gas-laden atmosphere of London or other large towns. I have long regarded the galvanometers which are usually sold in combination with batteries as *worse*

than useless. For graduating the strength of the current two methods are in common use, viz., (*a*) placing resistance in the circuit by means of a rheostat; (*b*) varying the number of cells in circuit. Now a good rheostat is an expensive piece of apparatus, and costs far more than the battery, and although for physiological purposes, when great exactness is absolutely necessary, a rheostat may be advisable, it is neither necessary nor advisable for ordinary clinical purposes. All the cheap rheostats which I have tried are very nearly worthless. A cheap and reliable rheostat is a great desideratum, and would tend to simplify the construction of batteries by making two points of connection alone necessary for even the biggest batteries. The number of cells in circuit may be varied in many ways. The common dial collector is, perhaps, the commonest method. A dial collector is most convenient and handy when it is new, but when it gets dirty or oxidised, when the spring of the revolving arm gets loose and loses its tension, and when the connections with the cells begin to oxidise or get loose, it become a vexation rather than a comfort. A dial collector increases the number of junctions in the circuit, a thing to be avoided where possible. Thus for a battery of 30 elements, a dial with 30 metal points is necessary. Each cell has to be connected with the under surface of the metal point of the dial (one junction). The arm of the dial has to be brought into contact with the upper surface of the metal point in connection with the end cell of the number used (two junctions). This junction is a mere contact junction, and a very small amount of grease or dirt or rust increases the resistance enormously. The central point of the revolving arm of the dial forms a junction with its socket (three junctions), and this, again, is a junction of an imperfect kind, very liable to get loose or otherwise deranged. The central socket has to be connected with one of the terminal poles of the battery (four junctions). Of these four junctions, all sources of inefficiency, three are unnecessary, and if these three can be dispensed with, the permanent utility of the battery will be increased.

There is another disadvantage which, in my opinion, more than counterbalances the convenience of the ordinary dial collector, and it is this: that in using the battery the first cells in the series are always in circuit, and necessarily lose their efficiency with a rapidity proportioned to the amount of use to which they are subjected. If, out of a battery of 30 cells, 15 is the average number used, then, with the ordinary dial collector, the first 15 are the ones upon which the work falls, and there is no possibility of using the whole or any part of the last 15 in the series, unless the first 15 be employed as well.

It obviously favours the working durability of a battery, if we are able to throw any individual cell or group of cells, at pleasure, into circuit. If any one cell is always of necessity in circuit, then if that one cell becomes inefficient or its connections damaged, the efficiency of the whole battery is destroyed, because no current will pass through the damaged cell.

Faulty junctions and connections are the great causes of failure in batteries, and these causes of failure exist equally in the conducting wires and rheophores. The ordinary conductors made of plaited metal thread, covered with wool or silk, are abominations not to be tolerated. They offer great resistance to the passage of the current even when new, and when they become wet the wire oxidises and breaks. These conductors are fastened to the battery at one end, and to the rheophore at the other by means of flat metal hooks or plugs, and the junction between the conductor and the hook or plug is, as a rule, flimsy and loose.

Now, if we consider the passage of a current in an ordinary battery, provided with the ordinary accessories and conductors, we shall find that the number of connections is very large indeed. First, there is the connection of the carbon plate of the element to the conducting wire (1); the attachment of the wire to the current reverser (2); two contact junctions in the reverser (3, 4); the junction of the reverser with the continuation of the conducting wire (5); two attachments to the galvanometer (6, 7); the attachment to the stud of the dial collector (8); the contact junction between the upper side of the stud with the revolving spring arm of the dial (9); the junction at the central end of the revolving arm of the dial (10); the junction between the socket of the dial and the positive pole of the battery (11), which may take the form of a socket or screw; the junction between the positive pole of the battery and the plug or hook of the conductor (12); the junction between the hook or plug of the conductor and the conducting wire (13); the junction between the conducting wire and the plug or hook of the rheophore (14); the junction between the plug or hook and the rheophore itself (15); the junction between the rheophore and its sponge or carbon (16); the junction between the sponge or carbon of the positive rheophore and the patient (17); the junction between the patient and the negative sponge or carbon (18); the junction between negative sponge or carbon and rheophore (19); between rheophore and hook or plug of conductor (20); between hook or plug and the conducting wire (21); between conducting wire and hook or plug (22); between hook or plug and the screw or socket of the battery (23); between screw or socket and the conducting wire in the battery (24); and between conducting wire and zinc plate (25). If we leave out of consideration the two contact junctions with the patient, there are 23 junctions *inseparable* from the ordinary form of battery, even when one element alone is used, and to this must be added two junctions for every additional element in circuit, and two dial-collector junctions for every few elements (three, four or five, as the case may be). A fault occurring at any one of these 23 junctions (and it is, as has already been said, at the junctions that faults are most liable to occur) may render the battery useless, or may so increase the resistance in the circuit, that no appreciable current can pass through it. It is not to be wondered at that the majority of batteries are vexatiously unreliable.

How can we reduce the number of junctions? If the reverser and galvanometer be omitted from the battery, the number will be reduced by 6, leaving 17.

I have long since abandoned the dial or any other form of collector as being, on the whole, more bother than it is worth, and I am now contented to have the elements connected with screw terminals in the manner to be hereafter described. In this way three more junctions are abolished, leaving 14. Lastly, if telegraph wire (copper wire covered with gutta percha) be used instead of the ordinary conductors, then the bright end of the wire may be united directly with the battery and rheophore, and thus four more junctions in the circuit are avoided, thus reducing the number to 10, in place of 23.

Telegraph wire (costing 1*d.* or 1½*d.* per yard) is infinitely preferable to the ordinary conductor. It offers far less resistance to the current; is not injured by damp; if the end breaks off, it is easy to lay bare a fresh piece and make a new connection; the cost is not more than one-tenth of the price charged by instrument makers for "conductors," and the necessity for connecting hooks or plugs is dispensed with. Telegraph wire allows of great latitude in making connections with rheophores. When the copper is laid bare, it may be twisted round anything, and rheophores of various kinds may be extemporised of catheters, spoons, probes, &c., as occasion may require. The only form of con-

nection which is permissible in a battery is the screw terminal, by means of which the end of the conducting wire is tightly clamped between the two sections of a screw. The two faces of the screw, which are in apposition, keep clean; and if the wire be bright when it is inserted in the clamp, the connection is as perfect as any temporary connection can be. The plug-and-socket junction, on the other hand, is thoroughly bad.

I have said that, if the elements be connected with screw-terminals round the rim of the battery, dial collectors may be dispensed with, and thus a saving of expense is effected, and the risks of failure lessened.

In a battery of twenty cells, I have nine screw-terminals. The first five cells are each of them connected with a screw-terminal, as well as the tenth, fifteenth, and twentieth; and the terminals may be thus marked: "+1, 2, 3, 4, 5, 10, 15, 20." It will be found in practice that the conducting wire is easily shifted with one hand from one screw to another, and that this arrangement, infinitely simpler and safer than a dial, is almost as convenient. It allows of very complete graduation of the current, as it is evident that any number of cells from 1 to 20 may be included in the circuit. Thus, if six cells be needed, all that is necessary is to connect with 4 and 10. If eleven cells be needed, connect with 4 and 15. If nineteen be needed, connect with 1 and 20, and so on. It allows also of any group of cells being used. The last five, or the middle groups, may be employed as readily as the first; and since the finely graduated group is needed for delicate diagnosis, it is well to avoid using it for mere therapeutic purposes.

With a battery arranged in this way, it must be remembered that when the connections are made the lower of the two numbers is always *positive* and the higher *negative*.

If a battery is to work well, it is necessary that the permanent junctions, in the battery itself, should be very well made. The soldering must be firm, and all the connecting wires and junctions must be very carefully and thoroughly coated with insulating material. I have seen batteries sent out by first-rate firms of instrument makers in which the soldered connections were bright and bare and exposed to the fumes and moisture of the battery. Such ignorant and careless workmanship as this renders the battery quite unreliable, although it may prove to be a sort of annuity to the instrument maker who repairs it.

It is always most necessary when purchasing a battery to look to see that the connections between the individual cells and between the cells and screw-terminals are properly made and thoroughly insulated and protected. In a battery there are two kinds of workmanship required—the proper setting of the galvanic elements, and the making of the accessories—and it often happens that the skill expended on these two is very unequal. I have seen batteries in which the accessories (collector, reverser, &c.) have reached the perfection of workmanship, but in which what I may call the electrical work was so execrable that no current worth speaking of could be generated. On the other hand, I have seen the electrical work admirable, while the accessories have been so vile that not even the strongest currents could force a passage through them.

If the electrical elements and the accessories be kept separate, as they should be, each may be purchased of the manufacturer who shows the greatest care and skill.

As regards rheophores, I think that, on the whole, moist sponges are the best, and the best pattern of sponge-holder is that designed by Kidder, of New York, in which the sponge is securely fastened.

I may sum up what I have said, by giving the words in which I am accustomed to order a battery from the manufacturer, viz.: "*A twenty-cell medical Leclanché battery, without accessories, with nine screw-terminals, with twenty yards of telegraph wire and two Kidder's rheophores.*"

For nineteen out of twenty cases a twenty-cell battery is big enough, and if greater power is needed, it is easy to join two batteries together. For patients the above form of battery is admirable from its simplicity. It is obvious that any form of accessories may be used with these batteries, if it be desired, but the accessories and the battery should be quite independent of each other.

With regard to *induction coils*, it is not necessary to say much. I am not so wedded to the Leclanché element for induction coils, although it answers very well. The bichromate element is a very good one for induction batteries, and excellent induction batteries are made with the bichromate elements.

All that I have said with regard to junctions, insulators, conductors, and rheophores, applies to induction batteries equally with galvanic batteries.

An induction battery to be of any use, must allow of perfect graduation of the current. The most perfect way of doing this, is the old one of allowing one coil to slide over the other. Attempts have been made to graduate the current of an induction battery by means of a cheap rheostat, but I cannot recommend induction batteries of this pattern. The graduation by allowing one coil to slide over the other is simple and perfect, and allows of exact record. An induction battery to be of any use for diagnostic purposes, must be able to furnish a current of an intensity from *nil* upwards.

LUPUS VULGARIS—ITS TREATMENT BY THE LOCAL APPLICATION OF SULPHUROUS ACID.

By HERBERT COLLIER, M.D. Brux., L.R.C.P. Lond. M.R.C.S. Eng.

Once again has the subject of lupus been brought prominently before the profession by a paper recently read at the Medical Society by Mr. Jonathan Hutchinson. The author does not consider that the term "lupus" should be employed in its present restricted sense, but that it ought to have a wider signification, and be made to include a whole group of diseases possessing natural and close affinities.

Mr. Hutchinson also contends that the definition of this term should be a clinical one, and supports this view with considerable power, and with his rich store of practical knowledge. Yet from a purely clinical standing-point how difficult is it to assume that so many different types, presenting such diverse characteristics in their clinical history, should possess a common ætiology, and differ from each other only on account of the individual diathesis of the subject attacked.

Thus from a purely clinical study of these diseases, how impossible would it be to prove, or fairly contend, that the rapacious and destructive lupus exedens, which in the course of a few weeks may destroy by its ravages the greater part of the nose, lips, cheeks, and forehead, and continue this career of spoliation, unchecked by the most powerful chemical applications the most heroic surgical interference, the most subtle therapeutics, and fire itself in its many and different modifications, owns the same ætiology with the insidious lupus erythematosus, which almost imperceptibly attacks its victims, and only declares its wolf-like nature when its pernicious effects are but too complete.

From a purely clinical study of these two types, I say would it not be most difficult to assume that they differ only on account of the peculiarity of the soil on which they are placed?

Is it not by a pathological light, rather than by a clinical investigation that we have ascertained the links of connection between the several types of lupus?

In the present immature state of our knowledge of the true nature of this disease, would it not be better, then, to accept a pathological definition, perhaps the following:—a new growth of the skin or mucous membranes, accompanied by active congestion, and followed by exfoliation, degeneration, and interstitial absorption or ulceration, and terminating in scar formations. Now, although for the sake of pathological accuracy this definition is made to include "mucous membranes," it is most important to bear in mind that these tissues are never primarily affected, but always become implicated by extension.

I cannot help laying great stress upon the significance of this latter point, as of much diagnostic value in discriminating between true lupus, and certain of its so-called allies, more especially those associated with tertiary syphilis; and, as a most interesting illustration of this point, I may be permitted to cite the following case.

Margaret A., aged 25, was brought under my notice in March last by a medical friend, who supposed her to be suffering from lupus vulgaris. His object in calling my attention to her case was to kindly afford me an opportunity of testing the value of the treatment I am about to suggest for this disease, which, in two most obstinate examples, he had seen effect rapid cures after all other recognised methods had been tried with complete failure.

In this case there had been extensive and deep ulceration of the nostrils, lips (the upper one being almost entirely destroyed), cheeks, and forehead, where the left margin of ulcerated surface was very considerably thickened, and covered with rough congested skin. In addition there were swellings over the sternal end of the right clavicle and right acromio-clavicular joint; the former about the size of half a walnut, covered with thin congested skin, had some semi-fluid contents, and the latter, about twice as large, was excavated by ulceration similar to that on the forehead. There was also a large and irregular perforation of the palate.

Her family history was good; no indication of syphilis or lupus in any other member. Her parents were in a respectable position. At the age of sixteen she paid a visit to Hull, and some weeks afterwards the sight of the right eye began to fail, apparently from the formation of a cloud over its centre; the left eye shortly afterwards became similarly affected, and for some time she was blind, although light was still perceptible. After treatment for five months, her sight began to return, first in the right eye, then in the left. She was under hospital treatment throughout.

About four years afterwards, when she was twenty, a swelling grew in the palate, burst, and ulcerated into the nose. There was no history of previous sore throat, skin eruptions, loss of hair, or tender spots upon the head or skin. Since then she had been perpetually ailing, and the ulceration had spread to the face, committing the ravages already alluded to.

Feeling confident that the case was one of syphilis, we ordered large doses of iodide of potassium, with bark and ammonia. This treatment was followed by rapid subsidence of all lupoid action, and the patient gained rapidly in health and strength. At the present time her deformities alone mark where the disease has been.

In this case, although we had a history of keratitis at the age of sixteen, four years before the disease had declared itself, we had nothing else particularly indicating the existence of syphilis but the mode of onset, the *spreading of the disease from a mucous to a cutaneous surface.*

My chief object, however, in obtruding myself upon the notice of the profession, is not to offer any special comments upon the subject of Mr. Jonathan Hutchinson's most interesting paper, but to present to the profession what I must humbly consider, at all events in my own experience, and (what is far more important) in the estimation of one decided authority, Mr. James Rouse, to be one of the most successful methods of treatment yet brought to light for lupus vulgaris—the local employment of sulphurous acid to the ulcerated surface.

To the above-named gentleman is due, I believe, the honour of first having employed this form of treatment, although as early as the autumn of 1876, I treated and cured my first case with it; but at that time I was not aware that this method had already been adopted.

Mr. Rouse informs me, that in nearly every case in which this form of treatment has been carried out carefully under his direction, some improvement has occurred, although, in not a few, the patients' premature discharge from hospital precluded the possibility of treatment being continued to a successful issue.

The experience of Mr. Rouse exactly accords with my own; for in nine cases treated by the local application of sulphurous acid, I am able to record five distinct cures, three in which great improvement was effected, but which, unfortunately, passed from my hands before a cure could be concluded, and only one in which a negative result was obtained—this last being under treatment for fourteen days.

And this form of treatment will, I am sure, be not the less acceptable, because it is free from the usual modifications of cutting, bruising, burning, &c., now so generally resorted to, and consists simply and wholly in the employment of a slightly irritating application to the ulcerated surface of the disease.

Sulphurous acid has long been recognised as a valuable disinfectant and parasiticide, and has been in frequent use for most of the local skin affections, connected with the presence of living organisms. It has also been much advocated by various authorities for such general affections as tonsillitis, malignant sore throat (scarlatinal and laryngeal), diphtheria, croup, influenza, and chronic phthisis, locally applied, and internally administered, whilst in typhus and typhoid it is in great repute abroad, its advocates claiming that by its employment in large doses, these fevers are diminished in both severity and duration.

I am not, however, aware that any very exact explanation has yet been offered of its physiological or therapeutic actions when taken by the mouth.

Recognising its powerfully destructive effects upon some forms of micro-organic life, it will not be difficult to conceive how its curative results may be produced in lupus vulgaris, if we assume that the bacillus associated with this disease, exerts some distinct influence in keeping alive the obstinate ulceration (perhaps by preventing the formation of healthy granulations), but is incapable of existence, growth, or activity in the presence of sulphurous acid. Besides this germ-destroying influence, sulphurous acid also exerts a powerfully stimulating action when applied to the surface of open wounds, and I have particularly noticed its excellent effects upon certain indolent ulcers, which have resisted the influence of many other modes of treatment, including carbolic acid. In fact, my experience of its use, in these particular cases, compels me to consider that it is preferable to the latter in most forms of simple ulceration. It is far less irri-

tating, and consequently may be employed where carbolic acid would certainly do harm. Its stimulating influence may account then, to some extent, for its beneficial effect in lupus vulgaris. In gonorrhœa its effects, as an injection, are most happy, and I shall shortly publish the notes of 120 cases of this disease treated by its local employment.

In the local employment of this remedial agent, it may be applied in the form of a lotion, or an oil, or in the gaseous state. The last-mentioned modification is most useful, when its application is required to parts distant from the respiratory organs, and can readily be obtained by burning sulphur in a jar or open-mouthed bottle, and allowing the rising fumes free contact with the surface to be treated; the frequency and duration of these fumigations will mainly depend upon the progress made during its employment, but, as a rule, two applications daily, each for about twenty minutes, will be found sufficient to produce the healing effect of the remedy.

The lotion is best obtained by the use of the pharmacopœial preparation of the acid, either alone, or diluted to relative strengths of one in two, one in three, or one in four; the last preparation is the weakest which should be employed. It is a clean and simple mode of application, and can be applied to any part of the face without causing disagreeable effects; the great objection to its use being that it has to be constantly repeated, and evaporates much more quickly than when employed in the form of an oil.

This last-named method is my favourite form of applying the remedy. It is best made by dissolving the anhydrous acid (which may be procured at all druggists in the shape of a concentrated alcoholic solution) in castor or olive oil. I may state that I consider the former to be preferred as a vehicle, as it holds the acid in more complete solution, parts with it less readily, and forms a more perfect covering to the surface of the wound. The anhydrous acid, mentioned in connection with the sulphurated oil, may also be employed proportionally diluted as a lotion.

In conclusion, I may be permitted to record the notes of those cases which I have treated most successfully by this method up to the present.

Case I.—Emily H., aged 13, was suffering from an ulcerated lupoid patch, the size of a shilling, which involved the right ala of nose and adjacent part of cheek. Nothing of interest in personal or family history. Has always been delicate. When eleven years of age, scratched herself with a thorn. This gave rise to a small sore (which has never healed), and lately has been getting larger.

Child pale and thin. Tongue coated. Breath offensive. Several enlarged, but painless glands behind the right sterno-mastoid muscle. Viscera healthy. An indolent ulcer with raised edges, and surrounded by thickened dusky-coloured congested skin, occupying the above-mentioned position. She has been treated on and off since the sore was first noticed.

She was placed upon a mixture of soda, rhubarb and diluted hydrocyanic acid, and a solution of sulphurous acid in glycerine (at first one to six and ultimately one to three) was kept constantly applied to the surface of the whole patch.

In three weeks the wound had entirely healed, the patch itself assumed an almost healthy aspect, and the enlarged glands could no longer be felt.

Case II.—H. S., aged 15, had suffered from an open sore affecting his lower lip and chin for a "long time, certainly more than two years." Does not remember when or how it first came, but it has been getting rapidly larger during the last six months. The mother says that she first noticed it a few weeks after he had scratched a pimple off his chin. It was then very small.

Father died of consumption at the age of forty-two. Mother alive, and in good health. One sister died in infancy of "diarrhœa," and one at the age of seventeen in a "rapid decline." Three younger brothers all alive and healthy. Has had scarlet fever, measles, and whooping-cough, but all very slightly. Viscera all healthy.

Occupying the chin and lower lip is a large irregular and somewhat excavated ulcer, the size of a two-shilling-piece, surrounded by congested and thickened skin. The lower edge more prominent and somewhat everted.

Cod-liver oil, steel wine, and arsenic were first administered, and although the general health improved markedly, the local disease underwent no change for the better.

Glycerine solution of sulphurous acid in equal parts was now applied, and from its first employment great benefit was derived.

In ten weeks the wound had healed, and treatment terminated.

Case III.—Miss H., aged 33, consulted me upon the subject of a small indolent ulcer, situated upon the left ala of the nose. Does not remember how it first appeared, but is quite sure that she has been troubled by it for more than three years. It has not increased in size for nearly a year. Her general health is good. The ulcer does not give rise to much pain.

Occupying the edge and outer surface of the left nostril is a lupoid patch, the size of a sixpenny-piece, presenting towards its upper aspect a smooth indolent ulcer, surrounded by thickened, congested, and shiny skin.

Sulphurous Acid, in the form of an oil, composed of ʒi. of Herring's alcoholic solution of sulphurous anhydride, with two ounces of castor oil, was applied.

In ten days the ulcer had completely healed.

Case IV.—Clara G., aged 22, came under notice on account of a large lupoid ulcer, involving the forehead, above the right eyebrow.

Three months before, a "very small knot had appeared, become painful, and burst." It increased rapidly as a "spreading ulcer," and she states that she can see it "grow larger every day." She has been always healthy up to this time.

Two uncles died "in decline." Father and mother are both alive and healthy. There were no other children.

Involving nearly the whole of the right half of the forehead, is a large oval lupoid patch with its lower edge running parallel with, and half an inch above, the right eyebrow. The patient appears to be suffering from disordered digestion, and is in a low, depressed and feeble state of health. There is slight dulness over both apices of the lungs, breathing in the right apex is jerky and distant, in the left harsh and irregular. The patient states she is losing flesh, and suffers from slight attacks of sweating every morning about five.

She was placed on a mixture of soda, aloes, and strychnine; and when digestion improved, cod-liver oil, iron, and arsenic were substituted The local disease was not treated specially, but simply dressed with dry lint. All the general symptoms improved, and the patient rapidly gained strength and weight. Still, although the local symptoms did not increase, there was no indication of improvement.

Sulphurous acid was now applied, at first with equal parts of glycerine, and subsequently in the form of the oil mentioned before.

At the end of seven weeks the patient was quite well, and expressed herself as feeling stronger than she ever remembered to have done before.

Case V.—Amelia W., aged 20, has been affected with an "eating-away ulcer" on the right cheek, for the last three years.

The disease had first appeared in the form of a small hard lump, which was slightly tender and painful, but

*

in other respects gave rise to no inconvenience. In this state she was treated by a general practitioner, who painted it with iodine, but without producing any improvement. Subsequently it burst, and she then entered Norwich Hospital as an in-patient.

The disease was first treated by the local application of an ointment, it was afterwards scraped, the patient being under the influence of an anæsthetic, but no benefit followed this, and she was discharged at the end of five months, the disease having steadily increased.

A month before her entrance into Norwich Hospital, a small pimple appeared on the forehead, above the right eyebrow; this remained stationary for a few weeks, and then broke, and a small indolent ulcer formed, but did not extend very rapidly. It was treated during her residence at Norwich Hospital, and after having been "scraped, rapidly healed." She was also taking medicine during the whole time she was in hospital.

The patient states that in respect to the disease on her cheek, she was discharged incurable. Remained under no treatment for a month, and then went to the London Hospital as an in-patient. After taking medicine for about a fortnight, the "ulcerated surface was burnt with an acid." She was discharged at the end of two months, the ulcer in the meantime having increased very much in size.

She now returned to her home at Gorleston, and placed herself under the general practitioner who first attended her. He ordered her cod-liver oil, iron, and arsenic, with iodoform locally applied. The disease, however, steadily increased; it was at this stage that she was brought under my notice.

The patient was much emaciated, with feeble pulse, coated tongue, offensive breath, and disordered digestion. Her medical adviser informed me that the disease had certainly progressed since the local employment of iodoform. There was hypo-resonance over the apices of both lungs, and the breathing was coarse and deficient. The temperature, when first seen, was 100·5°. She complained of nocturnal sweats, chills, and heats, and was said to be growing weaker every day.

Occupying the right cheek, and involving the tragus of the ear, and two inches and a half of the adjacent surface of the face, and extending from the hair above to a point three inches and a half below, was a large irregular excavated ulcer. This was limited by everted and undermined edges, and surrounded by a zone of thickened and congested skin.

The whole surface of the ear was also the seat of superficial ulceration—this latter condition had only developed since the application of the iodoform.

The patient was placed upon a mixture containing soda, aloes, nux vomica, and diluted hydrocyanic acid, and equal parts of glycerine and sulphurous acid were applied locally. At the end of a week the ulceration of the ear had healed, and the whole surface of the lupoid sore had assumed a healthier aspect, it certainly had not increased; the patient felt much better in her general health.

At the end of a fortnight, small healthy granulations sprang up all over the surface of the ulcer, which now presented a more even surface.

From this time, the patient steadily increased in health and strength, and at the end of fourteen weeks, from the first commencement of treatment (during which time iron, strychnine, and cod-liver oil had replaced the soda and aloes mixture, and the sulphurated oil had been substituted for the glycerine application), her cure was complete. This occurred last October twelve-month, and since that time she has enjoyed excellent health, and has had no return of the local disease.

SPONTANEOUS RUPTURE OF HYDROCEPHALUS.[1]

By ALAN REEVE MANBY, M.R.C.S.

On May 20th, 1873, I was summoned to a primipara, who had been in labour 24 hours, and was suffering from too much inertia to deliver the head, which I accordingly did for her, with the forceps. The child was an unusually fine male, but had a large spina bifida of all the lumbar, and one or two of the lower dorsal vertebræ, the integuments of which were so thin and transparent, that the vertebral canal was distinctly visible with its contents, some of the fibres of the cauda equina ramifying just beneath the skin. There was also a peculiar deformity of the right foot, which was flat, like a negro's, with the heel projecting nearly as far back as the toes did forward. The child was dressed with the usual abdominal bandage, the pressure of which caused suppurative inflammation, and thickening of the surface of the tumour, so that by August of the same year nothing remained but a fleshy mass, pressure on which caused no discomfort to the child. About this time, however, the mother noticed that the head was "getting bigger," and that the child "stretched itself out and turned blue, as if convulsed, when she dressed it." When I saw it on October 1st, the child being then eighteen weeks old, it was decidedly hydrocephalous, but otherwise so well that no treatment was suggested or permitted. By Christmas, the head was so large and cumbrous that, when at home in London, the mother showed it to Mr. Jonathan Hutchinson, at the London Hospital, and I lost sight of the case till the evening of January 24th, 1874, when the father came to tell me that the "head had burst, and that pints of water were squirting away," as indeed they were, for seven and three-quarter pints of slightly bloody serous fluid were collected in a pail, besides a great quantity which must have been lost on the floor, and in the mother's clothing, which were sodden, as she nursed it. The child seemed relieved by the discharge, and slept better than usual, taking and crying for the breast naturally, but it died in its mother's arms at 10·30 next morning, or seventeen hours after the oozing was detected.

The only measurement that had been taken during life was the width from ear to ear, across the crown, and which was 27 inches.

Mr. Amyot published a very similar case (*Medical Times and Gazette*, 1869), which lived 24 hours; and a case, aged ten and a half months (reported briefly in the *Medical Times and Gazette*, April 14th, 1869, p. 421), soon after this, by Dr. Frederick Brown, of Rochester, died 96½ hours after bursting, and the discharge of two quarts of coffee-coloured fluid, on which the head "fell in, looking like broken pottery."

I was only allowed to make a very incomplete inspection, and by no persuasion or bribery could I induce the parent to part with the body for a museum. The aspect of the child was typical, according to Prescott Hewett (*London Medical Gazette*, 1844, or Watson's "Practice of Physic," fourth edition, vol. i, p. 473), of intra-ventricular fluid, the facial skin being drawn upwards and outwards, arching the eyebrows, and rendering the supra-orbital ridges prominent, the pupils of the eyes turned down, leaving

[1] Read before the Norwich Medico-Chirurgical Society.

the upper part of the conjunctiva exposed. The skull presented the appearance of a large bowl, with jagged edges, the scalp having collapsed completely, an appearance Trousseau somewhat poetically describes (Trousseau, "Clinical Medicine," New Syd. Soc., vol. i, p. 474), as "like the petals of an opening flower," but which Dr. Brown, with more truth, calls "a horrible and sickening sight." It measured, without allowing for the in-squeezing of the bones, as it was held, 23 inches round the edges, and half-an-inch more a little lower down, in circumference; probably, for the age of the child, it is one of, if not, the largest on record; for a child of three years old, which Dr. Gardner, of New York (*Medical Times and Gazette*, 1861, p. 259), exhibited in 1861, as having the largest head but one, "in or out of any museum," measured but 23 inches from the tip of one ear to the other, and 37½ inches from the junction of the nasal bones to the os frontis, to the base of the occipital bone he also gives the horizontal diameter as 32 inches, but as that would imply a circumference of more than eight feet, and as, moreover, he speaks of circumference further on, we must conclude that he means horizontal circumference. The scalp was thick and elastic, covered with large veins, and seemed to be structurally natural, with the exception of a rough reddened patch, the size of a shilling, about the middle of the left half, in the centre of which was a small pin-point hole, through which the water had passed; on enlarging this, and raising the scalp, air rushed in with a whistling noise, and a little more water passed out. The brain was unrolled, and spread in a thin, coarsely reticulated layer over the inside. Ulceration and thinning of the membranes was evident beneath the red spot which had given way in the centre, as before described.

Cases of spontaneous evacuation of the hydrocephalic fluid may be found here and there in medical literature, but, excepting Dr. Brown's and Mr. Amyot's cases, none resemble mine. Mr. Greenhow, of Newcastle, published a case in 1852 (Newcastle Pathological Society, November, 1852), in which the fluid exuded through the scalp, without any definite opening, during the child's straining efforts, and cases of fatal and non-fatal rupture through the ethmoid bone and nares are mentioned by Trousseau (New Syd. Soc., vol. i, p. 477); Leonard Sedgwick (*Medical Times and Gazette*, March 15th, 1856, p. 259), and others.

A curious case, the converse of mine, was shown at the Pathological Society in 1857, by Mr. Hutchinson (Pathological Society, *Medical Times and Gazette*, March 17th, 1857), in which the head decreased, while a spina bifida in the sacral region oozed. The child ultimately died, and at the autopsy, the central canal of the spinal cord was found dilated to the size of a crow quill.

Chronic Dysentery with Pseudo-Polypi in the Large Intestines.—Dr. J. H. Musser recently showed to the Pathological Society of Philadelphia specimens illustrating this condition from two patients who had suffered from dysentery. In the *American Journal of Medical Sciences* for January, 1881, Dr. Woodward described the mode of origin and development of these polypi as dependent on (1) a granulating ulcerated surface of the intestine, (2) numerous islets of mucous membrane on this surface. "The formation of cicatricial contractions commenced in the infiltrated submucosa constricting the margin of the islets of mucous membrane, which were further transformed by hyperplastic inflammatory processes, until ultimately they acquired the form of pedunculated excrescences, and projected into the lumen of the intestine like so many little polypi," being pushed out by the contraction of the connective tissue.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING CROSS HOSPITAL.

CASE OF DOUBLE POPLITEAL ANEURYSM, WITH REMARKS.

By RICHARD BARWELL, F.R.C.S.,
Senior Surgeon to Charing Cross Hospital.

William S., aged 31, a booking clerk, in the employ of the London Steam Boat Company, was admitted into Charing Cross Hospital, under my care, on November 24th, 1883, having been sent to me by Dr. Steggall, of Queen Square, who had diagnosed a popliteal aneurysm.

History.—About seven weeks ago he first noticed a small swelling in the left popliteal space, to which his attention was drawn by a sense of throbbing. This swelling pretty rapidly increased. Fifteen years ago he had a sore on the penis; as no symptoms of syphilis ever appeared, this probably was merely a chancroid. For the last few weeks he has been falling into a low depressed condition.

State on Admission.—The man is somewhat anæmic and weak. He complains of numbness and formication from a little above the knee downward, also of pretty severe pains running chiefly down the back of the leg to the inner ankle, sometimes in front. These, which are worse at night, he has called sciatica. Examination revealed in the left popliteal space a tumour of considerable size, nearly as large as a goose's egg, the long axis lying obliquely in the space. Its pulsation was evident to both sight and touch; it appeared very close to the skin, and was very characteristically expansile. Pressure on the femoral artery at the groin eliminated the pulsation, the tumour becoming quite small and flaccid. On releasing the vessel, the aneurysm at once regained its size and hardness, pulsation becoming immediately visible and sensible. There was not the slightest *bruit*, nor even the faintest murmur. A rather exaggerated pulsation existed also in the right popliteal space, but the most rigid examination could discover no tumour.

November 30th.—I ligatured the left superficial femoral artery with ox-aorta ligature. While on the table it was discovered that a tumour had during the last few days developed in the right popliteal space, of the same character as the one on the left side.

December 1st.—Patient quite comfortable this morning, no pulsation in tumour; temperature of left popliteal space was 4° higher than right, during the night. At present they are of the same temperature, *i.e.*, normal.

December 11th.—Wound quite healed, the aneurysmal tumour is smaller and quite hard; there is not the least pulsation.

December 12th.—Non-continuous digital pressure was begun to-day on the right common femoral, as it lies on the pectineus, by relays of dressers. They begin at 10 a.m. and leave off at 8 p.m. One applies the pressure on the femoral, while the other tests its efficacy by keeping his fingers on the tumour and seeing that the pulsation in it ceases.

December 13th.—Digital pressure continued, but without any material difference in the pulsations.

December 14th.—Digital pressure brought to a close, as evidently of no avail.

December 21st.—Patient went home to-day.

January 8th, 1884.—Patient returned to hospital to-day. The tumour in the right ham has increased slightly in size, and the pulsation seems closer beneath the fingers.

January 17th.—I tied the right superficial femoral artery with ox-aorta ligature. The wound was dressed antiseptically; an ox-aorta drainage tube was used.

January 19th.—Last night at 9 o'clock the patient's temperature suddenly rose to 102·2°, he complained of intense headache and great thirst; an ice bag was ordered to the head, and he was given ice to suck. This morning the temperature was down to 100°.

January 21st.—Feels much better to-day; headache gone. Complains of slight pain in wound, and some shooting pains in calf of leg. No pulsation in aneurysm. Temperature 98·4°.

January 24th.—Dressings removed to-day, they were slightly stained with discharge. The wound was healed along the upper half of incision, but pressure released a quantity of pus from the lower half; the drainage tube had become absorbed. Temperature 99·2°.

January 29th.—Wound looks healthy. Aneurysm solid and pulseless; no pain. Temperature normal.

February 4th.—Complains this morning of pain in wound, which was found to be inflamed on removing dressings. Lower end open and discharging pus, without smell. Re-dressed, much to patient's relief.

February 11th.—Wound not looking very well; was ordered to be poulticed. Temperature normal.

February 18th.—Still poulticing the wound; it looks quite healthy and clean this morning; general condition good. Aneurysm very much smaller and quite solid. Temperature normal.

February 22nd.—Poultices discontinued. Edges of wound brought together with plaster, and simple dressing applied over all.

February 27th.—Patient got up to-day for first time since operation. Complains of feeling very weak on his legs, which, with his feet, are cold.

March 6th.—Has been getting up every day since last note. Gaining strength fast; no pain anywhere; feet and legs warm, and can walk fairly well.

March 25th.—Discharged.

Remarks.—Several points are of interest in this case. The left aneurysm was, when the man presented himself at the hospital, very large, the sac being thin and lying close to the skin. Hence the special points of diagnosis were demonstrable with great clearness to the class. Absence of *bruit* is, in my experience, so very common in aneurysm that it can never be taken to negative the aneurysmal nature of any tumour, although when present, clearly and distinctly, it will assist diagnosis if the fact be recollected that certain other tumours, especially if they lie upon bone or other hard substance, may transmit a sufficiently loud, though generally a confused and more or less continuous murmur. It is, however, especially important to teach how very little reliance is to be placed on the absence of murmurs or *bruits* in the diagnosis of aneurysm.

Of far more value, as pathognomic symptoms, are the empty, flaccid condition of the aneurysm produced by occluding the artery above, especially on releasing the vessel that sudden bounds to its former size, and the instantaneous resumption of rhythmic expansile pulsation. In order to teach my class more fully to recognise this expansile sensation, I made use of a device, which was suggested to my mind by the very character of this aneurysmal pulse:—I procured two india-rubber ball syringes, each holding an ounce, and connected their nozzles by means of about two feet of tightly fitting india-rubber tubing, taking care to keep them both full. One of these the teacher places in the pupil's hand, or between the opposing fingers of both his hands. Holding the other himself, he alternately squeezes and releases it in synchronous rhythm with the pulse, causing the ball which the pupil holds to expand and relax in a manner precisely like an aneurysm. When the character of expansile pulsation has thus been learned, the teacher, ceasing that manipulation of his own syringe, takes the nozzle of the other, and impels it in alternating little jerks against the pupil's hand, thus giving him the idea of "communicated pulsation."[1]

Reverting to the patient's condition; the very thin walls of the large tumour first described representing an aneurysm devoid of any lining by clot, devoid therefore of any tendency to spontaneous cure, showed that treatment by any form of pressure would not only probably fail, but might prove dangerous by causing expansion, even perhaps rupture of the sac. Reid's method appeared to me of all forms of pressure, in this particular case, the most hazardous. I, therefore, decided to tie at once, using the ox-aorta ligature: the aneurysm rapidly solidified, and I have nothing further to say about that, the left, one.

But there are some interesting circumstances connected with the condition of things in the right popliteal space. As is well known, popliteal aneurysm is not unfrequently double. I have endeavoured elsewhere[2] to account for this peculiarity. In this case, when the man first came under notice, the right popliteal artery beat with unusual force, yet did not present any enlargement that could be verified as aneurysmal. After a week's rigid confinement to bed, this forcible pulsation had developed into a distinct aneurysm. The left femoral was tied, and then, after another fortnight's complete rest, the right aneurysm had attained a considerable size. If this case stood alone, it might be taken to show that obstruction of the one vessel, first by aneurysm then by ligature, produced over-fulness of blood in its fellow of the opposite side, and thus conduced to the formation of the second aneurysm. But we must read with this case one published by Professor Humphry. He tied a right femoral artery for popliteal aneurysm, and after a time another aneurysm in the opposite popliteal space was developed,[3] but not from any local plethora produced by obstruction of the right artery; for the man was, on account of reiterated secondary hæmorrhages, very exsanguineous, and the action of the heart was very weak. I presume, that in both these cases the original lesion of the inner and middle coats had occurred prior to surgical observation; the subsequent development of aneurysm, even under perfect rest, and in Humphry's case with severe bleedings, was a mere question of time. If this be so, the cases would militate against the value of rest-treatment, and of Valsalva's method, at all events in external aneurysms. The mode of pressure-treatment employed was experimental; had during its continuance any, even the slightest, sign of benefit appeared that treatment would have been continued. But such signs were not merely absent; I believed that the aneurysm under the use of pressure increased more rapidly, the pulsation was certainly nearer the surface. As also the man's health was a good deal affected by it, I deemed it wise to discontinue that treatment, and to substitute deligation.

[1] The expansile pulsation may be further demonstrated by placing the pupil's syringe on a table, and covering it with a thick cloth or some layers of wadding, to represent a deeply seated aneurysm.

[2] See my article on "Aneurysm" in the *International Encyclopædia of Surgery*, vol. iii, p. 380.

[3] *British Medical Journal*, 1876, vol. i, p. 599.

Medical Times and Gazette.

SATURDAY, APRIL 26, 1884.

Two papers of much laryngological interest were brought before the Clinical Society at its last meeting. Dr. de Havilland Hall described the sequel of a case of perichondritis of the larynx previously communicated to the Society, and Dr. Percy Kidd contributed a case of tubercular tumours of the larynx which were under observation for a period of nine months, during which time no disintegration of their tissue had taken place. They had attained their full size in the larynx before any symptoms of pulmonary disease could be discovered. The occurrence of such tumours is certainly to be reckoned among the rarer phenomena of laryngeal disease, and Dr. Kidd was only able to quote the experience of one other observer, to show that his own case was not absolutely unique. Several speakers, however, were in a position to prove that laryngeal inflammation, undistinguishable from the tuberculous form, might precede the development of the same disease in the lungs.

The subject of operative treatment in cases of rectal cancer was introduced in a paper by Mr. Harrison Cripps, giving details of several cases in which he had performed the operation of excision. The discussion was chiefly confined to the individual experience of operators in such cases, and the general opinion of the value of excision of the rectum as a remedial, if not absolutely curative measure, was not questioned by any of the speakers. The President, however, expressed some doubt as to whether it could be shown that life was prolonged in any cases beyond the limit which might possibly be attained without any interference; a view which was promptly combatted by Mr. Cripps in his reply. There can be no doubt that the operation has of late years gained much favour, but there can be equally little question of the fact that much yet remains to be devised in order to overcome the troublesome sequelæ of anal constriction and fæcal incontinence, which would appear to have been present after most of the operations hitherto performed. An interesting case of tubercular meningitis in an infant, by Dr. Angel Money, gave rise, owing to the lateness of the hour, to less discussion than the subject merited. We append elsewhere a list of the living specimens exhibited to the Meeting.

At the Royal Medical and Chirurgical Society two papers of great interest were read and discussed. The first was on the Cause of the Increase of Cancer in England and Wales, by Mr. Jessett. After analysing the Registrar-General's statistics and showing the increase, the various possible causes were discussed. The author thought that much good would result if the medical profession were to set their face strongly against the inter-marriage of those persons with an hereditary tendency to cancer. He did not believe in the local origin, nor in the neurotic theory of origin alone; though both these causes might prove effective in persons hereditarily predisposed. The second paper, by Mr. Macnamara, on Epiphysitis, gave rise to a spirited but one-sided discussion. The author proposed the term Epiphysitis for various diseases of bone, which he claimed to be allied by reason that they all commenced at the epiphyseal junction, viz., diffuse ostitis, osteo-myelitis, suppurative periostitis. He recorded cases giving the symptoms, pathology, and treatment, and also showed the patients. Mr. Holmes, while agreeing as to the interest and importance of the cases, differed *toto cœlo* in their interpretation; he thought it very unwise and inappropriate to group together such divers cases, and more especially to give them the term Epiphysitis, seeing that the epiphysis was in no way implicated in the disease, and had nothing whatever to do with it. Mr. Thomas Smith followed, and agreed with Mr. Holmes. Indeed, all the speakers condemned the use of the term for such cases. In his reply, Mr. Macnamara supported his own view, reiterating his chief point as contained in an abstract of his paper, which we publish elsewhere. We hope that such an expression of opinion as to the unsuitability of the term for these various forms of disease—each having an entity of its own—will induce the author to carefully re-consider his position, and lead him to adopt either a more appropriate collective term, if he thinks it desirable to group them; or to leave the subject where it was before. An adequate account of these various diseases remains to be written, as a glance at our text-books will quickly show; but it must be undertaken only by one who has a very wide field of observation, since the diseases appear to differ as greatly in respect to age as to ætiology.

Dr. Bristowe, in his paper on the use of hospitals as training schools for nurses, at the meeting of the Hospitals' Association on Wednesday last, dwelt at some length on the gradual development of the nursing system now in operation at St. Thomas's Hospital, and showed very clearly the benefits which have accrued to all concerned by its adoption. He is of opinion that the demand for skilled nurses will in future be greater than that for medical men, hence the facilities for training them must be increased, this he would accomplish by multiplying small schools throughout the country, rather than by means of large schools. Every hospital and some of the better infirmaries, should have each their own nursing school. He regards the existence of a nursing school at a medical school as a distinct advantage to all parties, and would never hesitate to give a nurse as full information on a case, as he would to a student. The nursing school ought to be under the immediate control of the committee of management of the hospital, a view that will be shared by many who have not forgotten the effects of an opposite system last year. As usual, the question of pounds, shillings and pence has to be thought of, and Dr. Bristowe pointed out some ways in which he thought that this difficulty might be met; they included voluntary support from the public, payment by the friends of those who are to be trained, and the suggestion that the probationers might live with their friends and come to the hospital every day.

The paper which followed was by Miss Lückes, matron of the London Hospital, and is marked throughout by sound common sense and a complete grasp of the subject. In the course of her remarks she gave vent to sentiments with which we find ourselves in entire accord, for instance, in speaking of the permanent staff of nurses in a hospital, she said that the fully trained workers should be allotted to, and kept in, their respective wards, without any idea of being transferred from one to another, unless under exceptional circumstances, to be approved by all concerned; it would, indeed, be well for the patients if all matrons of hospitals held the same views and acted upon them. "No one could deplore," said Miss Lückes, "more strongly than I should do any attempt to sacrifice the efficiency of the nursing of a hospital by an *undue* enlargement of its training school. Under no circumstances could it be desirable to take unlimited numbers of inexperienced women, and reduce the regular staff to an extent that would be inconvenient to the medical staff, injurious to the patients, and deteriorating to the quality of the training given." Miss Lückes has no sympathy with amateurs in the wards, all who take up nursing must be in earnest, and have the same duties, and be treated exactly alike. The training should be as far as possible thorough, so that at the completion of it a nurse should be fit to deal with a case which presented both medical and surgical features. The long hours which are so often imposed upon nurses were alluded to, and the truth and importance of the statement may be freely admitted, but the only conceivable remedy would be to enlarge the nursing staff, and that in the present embarrassed condition (financially speaking) of most of our hospitals is simply out of the question. In conclusion, Miss Lückes could see no difficulties to prevent the harmonious working of a training school for nurses and a medical school, no confusion could arise n practice, except from a failure to appreciate the elative positions of doctors and nurses.

The old-fashioned practice of giving a complete estimation of the mineral constituents of a water, which has of late fallen into disrepute, and been to a great extent superseded by the rival processes for calculating the organic matter present, more or less indirectly found an able advocate in Dr. Ashby, at the meeting of the Society of Medical Officers of Health, on Friday last. He showed that analyses of water from wells, the sources of pollution being evident, gave results very different from what might have been expected, and that the inferences drawn from them by many analysts would have been far wide of the facts. While we must say that he went too far in his contempt of microscopic examination, it was refreshing to listen to his outspoken ridicule of arbitrary standards of purity and demonstration of the uncertainty surrounding "albuminoid ammonia," &c. His main theses were that the *normal* chemical composition of the waters in any particular *geological* area must first be known; that any appreciable deviation from this local standard indicates the addition of something from without; that since in practice the pollution always consists of excreta, &c., and not of pure albumen or other unmixed organic matter, and the organic admixture is inevitably accompanied by inorganic substances; and since these can be estimated quantitatively with precision, while the former assuredly cannot, and are, moreover, more characteristic of the particular source of pollution, it is obviously safer to take as our guide the whole of a fixed and definite, than an unknown part of an uncertain and ever-changing substance. The phosphates almost always derived from organic pollution and the sulphates, if in excess of the normal of the locality, afford at least as valuable indications as the chlorides and nitrates, while albuminoid ammonia, free or saline ammonia, nitrites, and nitrates are but various forms of organic nitrogen, representing different stages of decomposition and oxidation, and will be found in varying and generally inverse proportions in the same sample of water at successive periods. Of course, he referred to the researches conducted by himself and Mr. Otto Hehner on nitrification which, as he has shown, is evidence of active bacterial agency actually going on, and not of *previous* in the sense of *remote* contamination, since it proceeds most energetically when the soil, sodden with sewage, is converted into a nitric bed. Again, since the disease germs, the organisms, whatever they may be, to which the dangerous consequences of organic pollution are really owing, are living bodies, it follows that *some* of the most refractory organic matter is more injurious than *any* of the more unstable, dead, and decomposing matters can possibly be; but that since they appear in the same form of albuminoid ammonia as fresh and undecomposed animal or vegetable matters only in infinitesimal quantities, the evidence afforded by this test is of the most uncertain kind. The salts, too, are more uniformly diffused than the organic and organised matters can be, so that, in short, since wherever we have sewage and similar pollution we may have specific or non-specific germs indistinguishable from one another, and we shall have organic matter in one of its Protean forms, none of which can be wholly estimated, and which will probably be unequally distributed, we shall always have a certain number of salts uniformly diffused, capable of precise estimation, and in excess of those natural to the water. When, then, the original values are deducted from the quantities found, we have positive and sufficient evidence of organic pollution, and a fair clue to its nature and source. An obvious moral that Dr. Ashby drew from these considerations was that provincial medical officers of health should be the local water analysts, as by making themselves acquainted with the normal characters of the waters of their respective districts they would be better able than strangers to recognise deviations therefrom.

The President and Council of the Medical Society of London have issued invitations to a *conversazione*, to be held at the Society's Rooms in Chandos Street on Monday, May 5th. The annual oration will be delivered at 8.30, by Dr. Charles Theodore Williams, an announcement which will be received with pleasure by the profession, as proof that the orator has fully recovered from the effects of the severe illness by which he was so recently prostrated.

The spring meeting of the Medico-Psychological Association will be held at Bethlem Hospital on Tuesday, May 6th, at 4 p.m., when Dr. Hayes Newington will read a paper on "Unverified Prognosis"—a subject which might be usefully considered more often than it is in connection with other specialties; and Dr. Bonville Fox will read a paper on "Exaltation in Chronic Alcoholism." The important practical subject of the "Transference of Lunatics of Foreign Nationality to their own Countries" will be introduced by Dr. Mercier, who will submit some resolutions in connection with it to the members of the Association.

The Association of Medical Officers of Schools, which was founded last week, appears to be starting under sufficiently favourable auspices. Amongst those who attended the preliminary meeting were the medical representatives of the larger schools of every class from all parts of the country. The interest and appreciation which the movement has already excited is shown by the fact that although it was possible in the first instance to address only a limited number of medical officers of schools, in the strict sense of the term, favourable replies have been received in the proportion of nearly forty to each fifty circulars sent out. The constitution of the Society is more liberal than its title might seem at first sight to indicate: *all* medical men whose special work lies or has lain in dealing with the ailments of children and young persons, are eligible as members, whatever be their nationality; and it is hoped that much valuable knowledge may thus be gathered in from all quarters, and made at once available for practical application to the good of the rising generation, with a rapidity and method which no other machinery could so easily or so certainly assure. The outside public is already roused to a widespread if not too intelligent interest in hygienic matters; and it will be quick to see that the practical hygienic care of its growing sons and daughters is something which—if duly carried out—bears an immediate pecuniary return, in addition to a store of future health and happiness. But hygiene is a subject as wide as the human nature with which it has to deal; and any means by which the required information may be sooner gained, better sifted, and more certainly applied, should be welcomed and supported by all who are interested in the mental, moral, and physical welfare of the generation which will succeed to their responsibilities and which will judge how these have been hitherto discharged.

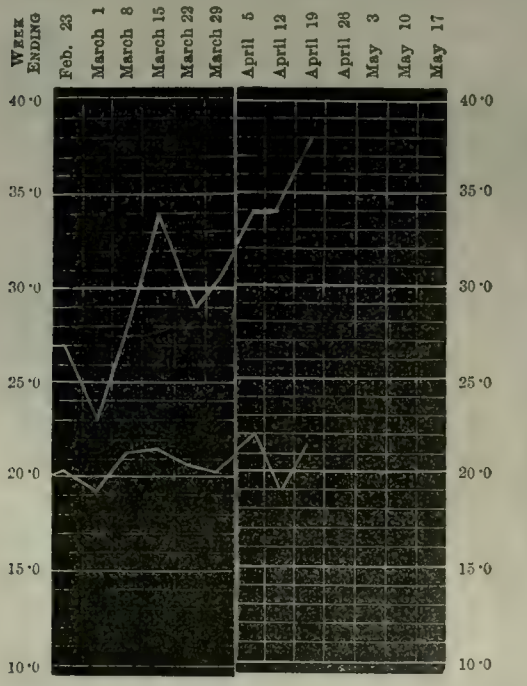
The American Medical Association will hold its Annual Session at Washington the week after next. In the Section of Practice of Medicine, of which Dr. John V. Shoemaker, of Philadelphia, is the chairman, several interesting subjects will be considered. These will include—(1) A discussion on "A Contribution to the Clinical Study of Epilepsy," opened by Professor William Pepper, of Pennsylvania. (2) A discussion on the "Clinical Study of the Heart Sounds," opened by Professor Austin Flint, sen., of New York. (3) A discussion on "Tuberculosis," opened by Dr. Henry F. Formad, of Pennsylvania. Many interesting contributions are also promised, including papers by Dr. Austin Flint, jun., on the "Dietetic Treatment of Diabetes Mellitus," by Dr. Griswold on "Irregular Apoplectic Attacks from Other Causes than Hæmorrhage and Embolism," and by Dr. H. O. Marcy on "The Germ-Theory of Disease."

During the Congress the Association of American Medical Editors will hold their annual meeting, when the annual address will be delivered by President Leartus Connor, M.D., on "The American Medical Journals of the Future, as indicated by the History of American Medical Journals in the Past," and Dr. N. S. Davis will open the discussion on "How far can Legislation aid in elevating the Standard of Medical Education in this Country?"

If it were desirable to add another to the many societies which exist in this country in connection with our calling, we might, with considerable advantage, follow the American example and start an association of medical journalists. We cannot, perhaps, boast of the immense journalistic activity that distinguishes our transatlantic brethren, but there are few physicians and surgeons of eminence who have not been at one time or another connected with a medical journal, and most would probably admit that the literary discipline and encouragement afforded by such work have had no small share in promoting their later success. This journal itself has at different times reckoned among its staff many of the men who are now regarded as the most eminent in the profession, and it would be a great advantage to those of us who are at present striving to the best of our power to follow in their footsteps, and to gather up and disseminate the best thought of the profession, if we had from time to time the opportunity of meeting these past masters in the art, and receiving from them encouragement, instruction, and advice. There is one weak point in connection with medical journalism, regarded from the purely literary point of view, and that is that by the time that a writer has trained himself into habits of accurate thought and happy literary expressions, he is almost invariably compelled to give up his journalistic work in favour of that more remunerative if not more honourable employment, which is the natural goal of all medical practitioners. We do not know that we would have it otherwise. The formation of a larger special class devoted to medical journalism would no doubt have the effect of raising the standard of literary composition, but it would lessen the influence of the journals, because the reader would no longer be able to feel that they were written by men with the same practical interests and experience as himself. If, however, there existed some mechanism which would enable those engaged in medical journalism to meet and discuss topics of medical interest, to hear the criticisms, and the larger and more settled views of older men, and to receive from them encouragement in their work, the difficulty we have above alluded to would be in some measure surmounted. Such help is now in many cases secured informally; to establish it as a recognised principle would do more than anything else to raise

the tone of medical journalism in this country, which, with all due respect to our contemporaries and ourselves, is not beyond the bounds of possibility.

Last week the general death-rate of London rose again to over 21 per 1,000, viz., to 21·4, and the zymotic death-rate sprang up to 3·8 per 1,000, by far the highest rate recorded for weeks. But though the



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the first two weeks of the present quarter.

number of zymotic deaths, 292, were 52 above the ten years' average, the total deaths were still as many as 89 below the average. Of the zymotic diseases, measles, whooping-cough, diphtheria, and enteric fever were more fatal than usual in the corresponding week of the year; and small-pox, scarlet fever, and diarrhœa less so. Eighteen fatal cases of diphtheria were registered during the week in London, compared with only six registered in the other 27 great towns. The deaths from measles and whooping-cough have steadily increased during the last five weeks, the numbers in the successive returns being as follows: measles, 49, 56, 60, 63, 79; whooping-cough, 101, 112, 125, 124, 129. The first appearance of warm weather may be expected to send down the zymotic death-rate with a run.

The meeting of the Medical Congress which has taken place during the present week at Berlin will be noteworthy, apart from the intrinsic value of its own work, for the peculiarly fitting opportunity which it has afforded for the celebration of the Jubiläum of its President, Professor Theodor von Frerichs. Occupying the position of Professor of Clinical Medicine for twenty-five years, Dr. von Frerichs has so thoroughly associated his name with that department of study that it may be pardonable if the younger generation of scientific men have come to look upon him only as a great clinician, and have left out of sight the labours of his earlier years which paved the way for the greater works of his maturity. For the twelve years preceding his call to the University of Berlin in 1859, Frerichs had in turn distinguished himself in general and ophthalmic surgery, pathology, therapeutics, and chemistry. In the last-named subject especially, his published works on the changes taking place in organic substances before their excretion in the urine, amongst others the presence and importance of leucin and tyrosin in acute yellow atrophy of the liver, were, and still remain, of the highest scientific value. His later works on the processes of digestion, on Bright's disease, and on diseases of the liver, have become standards of medical teaching, even in other countries than his own. The influence of his clinical method upon the numerous students of all nations who have for many years past been privileged to attend the daily work of his Klinik, cannot be estimated at the present time; but there can be no doubt that the habits of close observation, of thoughtful investigation, and careful experiment which have characterised his labours throughout, must have exercised a powerful influence for good, an earnest zeal for worthy imitation, in very many of his pupils now actively following in his footsteps.

We suspect that but few of our medical brethren, and indeed that not many of the public, are aware that so long ago as in the first days of February, a Bill for the regulation of Cremation was introduced in the House of Commons by Dr. Cameron, Sir Lyon Playfair, and Dr. Farquharson, and was read a first time. It is very important that the Bill should not come on for its second reading before the Members of the House have been well instructed as to its aims and defects, and we, therefore, propose to notice its chief provisions. The measure has two objects: "to provide for the regulation of cremation, and other modes of disposal of the dead"; and the latter of these two objects is dealt with first. Clause 4 provides, that it "shall not be lawful to bury, or procure to be buried, the dead body of any person until the death of such person has been registered, and a certificate of registration has been issued in accordance with the provisions of the Registration Acts." And by Clause 5 it is further provided, that whenever it is proposed to register a death without the production of a legal medical certificate of the cause of death, the registrar shall delay issuing a certificate of registration, and shall at once give notice to the medical officer of health, who shall proceed to ascertain the cause of death. If this officer is able to give the required certificate, the registrar will be obliged to issue his certificate of registration; but should the medical officer of health be obstructed in proceeding to ascertain the cause of death, or be unable for any reason to certify the cause, he is to give notice to the coroner, who is to proceed to hold an inquest upon the body, as in a case of sudden death; and it is proposed that the medical officer of health shall be entitled, for the discharge of these duties, to a fee of *five shillings* from the person requiring the death to be registered.

These clauses of the Bill, if workable, would no doubt be sufficient to secure that no corpse shall be buried without the production of the medical certificate of the cause of death; but it may be questioned whether the fee proposed to be given to the medical officer of health is sufficient for the work required of him; and whether it will always be possible for him to obtain the fee from the person made liable for it. And it may be suspected that the promoters of the Bill are doubtful whether the clauses quoted will be workable, as they propose that they shall not apply, "except in the case of persons dying within any urban sanitary district in England or Ireland, or any burgh in Scotland, containing according to the last-published census for the time being a population of five thousand and upwards."

Two special provisions are proposed for the purpose of securing the second—and it may be supposed the main—object of the Bill, viz., the due regulation of remation. Clause 7 provides, that it shall not be lawful "to burn or dispose of, otherwise than by burial, or procure to be burned or disposed of otherwise than by burial, the dead body of any person (1) until the death has been registered in accordance with the provisions of the Registration Acts, as amended by Clause 8 of the Bill; and (2) except in a place licensed for that purpose by a Secretary of State, and in accordance with regulations which shall, from time to time, be made by a Secretary of State." Clause 8 provides, that in all cases in which "it is intended to burn or dispose of, otherwise than by burial, the dead body of any person," a special form of certificate of the cause of death, signed by one or more registered medical persons, shall be produced to the registrar of deaths; and this special form of certificate commences thus: "Knowing that this certificate is desired with a view to the cremation of the body of the deceased person to whom it relates, and knowing the responsibilites imposed upon registered medical persons granting such a certificate"; then follows the form usual in certificates of the kind; and, finally, the granter certifies "that the evident cause of his (or her) death was ———; and that there is no doubt in my mind that the death took place from natural causes, and no reason whatever to suspect that it was caused or accelerated by any criminal act."

Will this new certificate of death really make the legalisation of cremation, as a mode of disposal of the dead, a safe proceeding? Will it effectually take away from cremation the reproach, that it may be used to cover, and to for ever destroy the proofs of a crime? We trow not. Would a Palmer, a Smethurst, a Pritchard, or a Lamson, have felt the slightest hesitation in filling up and signing, in the most orthodox manner, such a certificate in the case of any victim to their skill? No one can believe its formal and particular declarations would have the very slightest deterrent effect with such men; while, on the other hand, honest practitioners will always use as much care and consideration in filling up the old and simpler form of certificate, as they would employ in supplying the cremation-certificate, if we may so call it by way of differentiation. The only value we can credit the latter with is, that it might in some perplexing and suspicious cases encourage a conscientious practitioner, and strengthen his hands in demanding a *post-mortem* examination. Is the other safeguard offered by the Bill, the regulations to be drawn up from time to time by a Secretary of State for the management of the crematorium, and endorsed by the Houses of Parliament, likely to prove of any greater value? No one can say, until the possible scope of these regulations is known. If they are intended only to regulate the arrangements of the place licensed as a crematorium, and the management of the process of cremation, they will avail nothing to make cremation, from the point of view of the public safety, a perfectly safe and desirable process of disposal of the dead.

We will add one more remark before leaving the subject for the present. It has been suggested to us that if all bodies were duly encoffined as now, and then stored for three months in dry vaults or chambers, they might then be cremated without the slightest hesitation, as suspicions as to foul play would have arisen by that time, or would never arise. Perhaps such a precaution might be accepted as partly satisfactory, or very nearly so; but would there not be a serious difficulty in cities of any great size, in storing, temporary and carefully, the mortality of three months? The average mortality of London for three months would be over 16,000, we imagine. Then, when is the funeral service to be performed? Nobody could endure postponing it till three months had elapsed; and few, we suspect, would entertain the dea of having the service at the usual time, and then leaving the body with the knowledge that the burial by fire would only take place three months later. We do not think that this suggestion offers an acceptable solution of the real difficulty in the adoption of cremation.

We recently adverted to some proposed changes which the Council of the College of Surgeons have in contemplation, as well as to others which were suggested to them by the Fellows and Members in public meeting assembled. We suggested that the proposed changes were just to the Fellows and Members at large; that they would be advantageous to the College, and conducive to its general prosperity, and as a secondary result would tend to engender a feeling of *esprit de corps* in a large and important Corporation of scientific men. There now is abundant evidence that the subject of a revision of the Charter is attracting considerable attention, and that there is a determination among Members of the College to secure for themselves a more adequate consideration at the hands of the Council than has hitherto been considered necessary by that body. Apart from the proposed Association of Members, which is in process of formation, there is among Fellows also a feeling that the Members should have some say in College management; the idea once started and backed up by the additional weight of such an opinion on the part of the Fellows, its early realisation is but a matter of time. We can only hope that these matters will receive the fullest and most unbiassed consideration of the present Council at their next meet

ing, when the report of the recent meeting of the Fellows and Members will be on the agenda. Our contemporary, the *Lancet*, has published letters from Mr. Charles Hawkins and Mr. G. D. Pollock, dealing with the subject in a very broad and liberal spirit; we would commend them to the Council, as a basis on which to legislate; for we can hardly doubt that half measures will give rise to a feeling of dissatisfaction, which will find practical expression in one way or another.

On Monday last a deputation of the Governors and Medical Staff of the so-called Government hospitals in Dublin waited upon Lord Spencer, to bring under his notice the dilapidated condition of the Richmond Surgical Hospital, one of the institutions under their charge. This building, which is over two hundred years old, and was never intended for a hospital, is in a most deplorable condition; its walls are crumbling, its sanitation is described as abominable, and the surgical staff are constantly complaining that they have the greatest difficulty, after successful operations, in bringing their patients safely through the period of convalescence from the want of proper ventilation and of an improved system of drainage. It is supported by a Government grant, but the Governors have no power to employ any of this grant in the maintenance of the building, which has therefore gone from bad to worse. The Government have more than once refused to increase the grant, and the Board of Governors do not propose to ask for further annual contributions from that source. All they ask for is a loan, for the purpose of putting the hospital in repair, and they propose to repay the loan and interest out of the present grant. The Lord Lieutenant doubted whether this would be possible, and he suggested, as an alternative, that the annual grant should be commuted and the Governors thereby placed in such an independent position, that they would be more likely to obtain voluntary support. When the Government grant was made it was expected that the hospital would be partially supported by voluntary contributions; hitherto Government support appears to have dried up the spring of private benevolence. That is the one argument against State subsidies.

The Managing Committee of the Glasgow Royal Infirmary which, be it remembered, is the chief hospital in the third largest city in the United Kingdom, have not in past times won a very high reputation for their show of deference to the feelings and opinions of their medical coadjutors, even on points on which at all other hospitals such deference is shown as a matter of course. Only a few months ago, in the chloroform controversy, the Chairman of the House Committee of the Infirmary attempted to ride rough-shod over the medical staff, with the most cynical indifference to their feelings. And now, again, the same thing is happening in the question of dimishing the number of physicians to the Infirmary. Last year the Chairman was compelled to send in his resignation, but a peace was subsequently patched up, and in consideration of his great services to the Infirmary he was allowed to resume office. We received for publication at the time some able communications, containing forebodings of further troubles; but, faithful to our principle of favouring temperateness of speech and kindliness of feeling, which are essential to the successful working of such a complex institution as the Glasgow Royal Infirmary, we suppressed them, and allowed ourselves to hope that the difficulty would not recur again. We were too sanguine; within the last few weeks we regret to hear there has been a recrudescence of the same old despotic spirit. Again, a question in which the opinion of the medical staff and the medical members of the Managing Committee is entitled to the greatest weight, if it may not claim absolute finality, has been decided against them by the lay members of the Committee in deference to the dictation of the same one-man government that was at the root of last year's difficulty. In this case we are informed the medical staff were not even consulted on the subject before the resolution was passed. Surely, if there is one point in hospital administration on which professional opinion ought to be received with due deference, it is as regards the amount of work and responsibility which may fairly be apportioned to each member of the medical staff. If, as is the case at Glasgow, the medical members of a committee are all but unanimously of the opinion that there ought to be such and such a number of physicians to undertake a definite amount of work, that opinion should be the main factor in influencing the votes of their lay colleagues. But this principle, it appears, is not recognised at the Glasgow Royal Infirmary, where the number of surgeons has been increased at the expense of the physicians' appointments, altogether in the teeth of the wishes and well-weighed opinion of the medical supporters of the charity. No institution can expect to prosper where such a cynical disregard is shown for the judgment of those on whom its efficiency is mainly dependent, and we make bold to say that in no other hospital or infirmary in the kingdom would the lay authorities have considered it decent so to over-ride the wishes of their medical colleagues.

The fact that the Committee of the Glasgow Royal Infirmary has for the second time proclaimed its revolt from the tacit understanding, by which all other similar charities consider themselves bound, forces one to ask whether there exist in the conditions of medical practices at Glasgow such exceptional circumstances as will account for this exceptional treatment. Past experience has shown that when the medical profession has been slighted, it has almost invariably had itself to thank for it. Is it so in the present case? Do the medical profession in Glasgow pull together with that firm loyalty to each other, which is to be expected of those practising under the shadow of a large and flourishing University, and in one of the wealthiest centres in the country? Do they all and always by their speech and conduct claim that deference from the community to which their culture and position entitle them? Do they demand in exchange for their professional services such remuneration as their brethren in other parts of the country have decided to be the fair wages of skilful and faithful work? The question of fees may seem at first sight to be altogether

foreign to the matter under consideration; but in a commercial community like Glasgow the tendency is always to value a thing at the price that it can be bought for; and if a merchant can purchase the best professional opinion for the price of a bottle of champagne, or a pair of gloves, he is to be excused if he comes to think that the opinions of medical men on other points are worth even less than that. In many fields of study Glasgow practitioners are doing scientific work that will bear comparison with that done in any other centre of medical activity, and yet some of these same practitioners, we are told, allow their richest patients—who can well afford to pay the fees demanded elsewhere for medical services, and who, when they happen to be elsewhere, pay them without a murmur—to fix the scale of payment themselves, and to remunerate the services of their medical advisers with as much or as little as it may be convenient to them to pay. Such a system, if it prevails, renders it impossible for the members of the profession to claim due weight for their opinion on any point. A medical man ought to be able to live on a scale of comfort bearing some proportion to the expenditure of those amongst whom he lives. If he cannot, then there is something wrong in the relation between supply and demand, or some disproportion between the profits of his profession and those of other callings. It may be said that this is a commercial view of the question, and that science and culture ought to be duly valued, even if they were reduced to living in the tub of Diogenes. Possibly it is a commercial view; but, remember, it is meant for application in a commercial community.

The scientific knowlege and literary skill of the medical profession is to be largely drawn upon in the compilation of the handbooks which will be published in connection with the International Health Exhibition. Dr. Acland will take "Healthy Villages," a subject to which he has devoted years of thought, and on which he has given frequent lectures to young men and maidens at Oxford. Dr. Poore will impress on those of his readers who are householders, their moral obligations in respect to the sanitary state of their holdings. Prof. Corfield and Mr. Watson Cheyne will take a more technical line in their "Laboratory Guide to Public Health Investigation." Dr. Duclaux, who is to write on fermentation, will be introduced to the British public in a preface by M. Pasteur. Dr. Arthur Gamgee, who needs no such introduction, will deal with the physiology of digestion. Mr. Wynter Blyth will write a handbook on Food, and Dr. Cheadle will contribute a preface to Miss Wood's pamphlet on "Cookery for Infants and Invalids." Other medical writers are Mr. Charles Paget, "Healthy Schools;" Mr. James Cantlie, "Accidental Injuries, their Prevention and First Management;" and Surgeon-Major Evatt, "The Ambulance." Altogether the scientific propaganda of the Exhibition may be said to have been placed in very competent hands, though we should like to have seen Sir William Gull, Sir James Paget, Sir Henry Thompson, and Mr. Pridgin Teale amongst the contributors. A handbook, too, by Sir Andrew Clark on "Diet for Dyspeptics, with some Notes on Tea-making," may be regarded as a desideratum.

An exceedingly good *resumé* of the present state of our knowledge of the action of hyoscyamin, is to be found in the American *Journal of Neurology and Psychiatry* for November, 1883. It is written by Dr. Brower.

An interesting discussion on pneumonia recently took place at the Liverpool Medical Institute, a full report of which is given in another column. We have so lately discussed the question of the contagiousness of pneumonia, that it is unnecessary to re-open it again. The evidence before us is as yet too meagre to warrant dogmatism on the subject. We must wait for more research, and meanwhile keep an open mind. One point of the highest importance, however, was brought out in the Liverpool discussion, viz., the great fatality of pneumonia in adults. Some teachers in London, misled perhaps by the comparative harmlessness of the affection in children, have taught of late years that pneumonia is, under rational treatment, a disease with a low death-rate, and have been inclined to attribute the fear with which their predecessors regarded it as due in large measure to the murderous results of blood-letting. They are wrong. Pneumonia in adults is almost as fatal as typhus in adults. It kills not far off thirty per cent.

We publish in another column a letter from Dr. A. H. Jacob, criticising our last week's note on University students and the support of the Corporations' museums and libraries. In this connection the important question seems to be what are the University examinations which an under-graduate must have passed, according to Clause 36 of the Bill, before he can obtain admission to the final examination of the Board. Dr. Jacob may have had better opportunities of knowing what was in the mind of the draughtsman of the Bill than we have, and if it is intended that a student should be able to obtain exemption from the higher scale of fees simply on his showing that he has passed a preliminary and an insignificant Arts examination, we willingly admit that the clause will work an injustice. If, on the other hand, it is intended, as we believe, that the under-graduate, in order to obtain admission to the final examination of the Board, must have passed all the medical examinations of his University, though his graduation for some reason or other may have been deferred, then we submit it would be as unfair to the Universities, as in the other case it would be unfair to the Corporations, to make him pay for the support of the museums and libraries in addition to the heavy fees he has already paid his University. It is hardly likely that these University fees will be less than the small proportion of the Board fees which will go to the support of the museums, so that in no case would University students obtain the right to practise for a smaller expense than other students. Take the case of the University of London, if Dr. Jacob will permit us to use the term. This University has to support a library and extensive buildings, including laboratories and dissecting rooms, on a scale necessary to the thoroughly practical character of its examinations. Hitherto it has had the privilege of granting the right to practise, and though it has been

able to charge comparatively high fees, these fees have never anything like covered the expenses of examination. It is now required to give up this privilege, and Dr. Jacob asks, in addition, that its graduates shall be in future compelled to pay towards the support of libraries and museums, which they now need have nothing to do with. As a matter of fact, the great majority of London graduates do take a diploma in Lincoln's Inn Fields or Pall Mall, and so contribute to the support of the Collegiate museums and libraries. But there is all the difference in the world between voluntary and compulsory support. Dr. Jacob would have found a much more popular cry, and one that we should have heartily joined in, if he had suggested that the State should have solved the difficulty by itself undertaking to support the museums and libraries, the completeness of which is certainly a national interest.

Mr. Knowsley Thornton removed a cystic spleen, by abdominal section (median incision), at the Samaritan Hospital on Thursday, the 22nd inst. The patient was a single girl, aged nineteen, and the tumour had been growing slowly for two years. Latterly it had increased much more rapidly, and caused much pain. Up to Thursday morning the patient was progressing quite satisfactorily. During the tying of the pedicle the patient suffered severely from shock, and for some minutes her life was in great danger; but she revived immediately the tumour was cut away and the drag taken off the pedicle. The specimen will be shown, and the further progress of the case reported at the Pathological Society.

Our Australasian brethren are at present engaged in opposing a Medical Bill which has recently been introduced into the New South Wales Parliament. Their disapproval of the Bill does not surprise us, nor will it surprise our readers when they learn what one of its clauses proposes to do. Clause 7 proposes to admit to the ranks of the profession two classes, viz., those who state that they have had medical study of not less than four years' duration, and those who have practised in the colony for not less than five years. As to the first class not a word is said as to the kind of hospital at which the study is to have been carried on; and as to the last class we are told that they will have to pass an examination at which "the candidate shall be required to show an acquaintance with the structure and functions of the human body"; and also to show "a competency to treat ordinary cases of accident or illness." This is, indeed, a minimum standard; but the Bill proposes a yet lower one: in that by the next clause it is to be enacted "That all unqualified persons who have been in practice in the colony ten years are to be placed on the Register." No wonder that two meetings of the profession were held, at which resolutions were passed condemning the Bill, and that an influential deputation represented their views to the Colonial Secretary. We trust, that in the interest both of the public and of the profession, the Bill, in its present shape, will never become law.

In illustration of the singular way in which the financial affairs of the Paris hospitals are managed, Dr. Richelot, the editor of the *Union Médicale*, tells a curious anecdote (April 10th). We recently gave, from the same source, some examples of the "pound-foolish," and here is one of the "penny-wise." A man having fractured his spine by a fall from the fortifications, and the hospital to which he was brought not possessing the mechanical bed requisite for his treatment, the *chef de service* went to M. Quentin, the Director of the Assistance Publique, and endeavoured to explain to him that the bed was not an object of luxury but an absolute necessity for a hospital. The Director replied, "you must not think of it, it is too dear, you must hire one." In vain was it represented that to hire the bed would in the end be more expensive than to buy it outright, the Director was obdurate, and the bed had to be hired whenever it was wanted. It had always to be waited for, and if used only for three days a month's hire had to be paid, so that between December, 1882, and April, 1884, the maker received 287 francs, that is to say, twice the value of its original cost. If this is to continue, the Assistance instead of paying a little more than 100 francs for its purchase will have to expend 215 francs (5,521 francs at 3 per cent.) per annum for this bed, which will soon become famous. "Paying for an object about thirty-six times its value, and yet never having it at hand, is a fashion of economising which calls for no remark." The same *chef de service*, having requested of the administration a box of instruments, to cost 120 francs, was refused on the plea that the budget of the hospital was exhausted.

Two most important appointments in connection with the study of pathology are now vacant, and will be filled in the course of the next few weeks. The Royal College of Surgeons are ready to receive applications for the post of conservator of their museum, which has just been vacated by Professor Flower. The appointment has hitherto been held by men of the highest scientific attainments, and is one which offers exceptional facilities for study, though but limited opportunities for original research. There will be no lack of candidates, and the decision of the Council of the College will not be an easy one. The electors to the other vacant post—the new professorship of pathology at Cambridge—will probably find their task equally difficult, though for different reasons. They have, in the first place, to decide what manner of man they want. Do they wish to have a teacher of pathology, who will be able to send up their students to the London hospitals well-grounded in the elements of pathology and prepared to make the best use of the rich material which will be placed before them in the hospital *post-mortem* rooms? Or will the electors prefer a pathological investigator, whose researches may win fresh fame and lustre for his University, but who will regard his teaching functions as a secondary matter? If the electors have the interests of the medical school at heart, there can be no doubt that they ought to give the preference to a man who has shown himself a skilful and conscientious teacher. For important as scientific research is, if it is to be subsidised, it ought to be paid for as what it is, and not

under the shadow of something else. But whatever ideal the electors may have formed of the future Cambridge professor of pathology, they will, no doubt, be able to gratify it from the strong list of names which will be presented to them. Dr. Roy of the Brown Institute, Dr. Creighton, Dr. Coats of Glasgow, Dr. Hamilton of Aberdeen, and Mr. Charles Stewart of St. Thomas's Hospital, are said to be candidates for the chair. Several of them have obtained high reputation for independent research, but as an experienced and successful teacher of pathology, Mr. Stewart has a record which none of his competitors can match. His very success in this field has alone been the cause of his not being more publicly known, and we feel sure that there is not one of his past or present pupils—many of them University graduates—who would not sincerely congratulate the Cambridge Medical School on the addition of such an earnest worker and enthusiastic teacher to the ranks of its professors.

"SANITARY ASPECTS OF LONDON GOVERNMENT."

A RESPECTED contemporary published last week a leading article with this attractive heading, but unfortunately the writer having excited the curiosity of his myriad readers, to hear something of "sanitary aspects," forgot to gratify it, and confined his attention entirely to a general criticism of Sir William Harcourt's Bill. And yet if there is one class of considerations, which would alone provide an ample argument for the reform of London Government, and which should fire the imagination of a medical writer, and speed his pen, it is those very sanitary matters which have slipped out of the purview of our contemporary. We will attempt, as far as our own dull imagination and stumbling stylograph will permit, to take up the matter where he left it, and to set down the few common-place thoughts that we owe to the suggestive title we have borrowed. Sanitary questions are of very different qualities. Some appeal to the meanest capacity, while others, more abstract in character, require for their intelligent appreciation the highest order of intellect and culture. A common vestryman in the presence of a raging epidemic will appreciate the necessity of withstanding it by an extra expenditure of funds and energy ; but the more abstract considerations connected with the prevention of such crises will fail to make the slightest impress on his sparse and torpid brain-cells. Such considerations appeal in all their strength only to men with statesmanlike foresight and broad habits of thought. Nothing is more disappointing to the members of the medical profession than to find views with respect to disease prevention, which appear to them, with their special training and experience, most vital in their importance and most impressive in their truth, failing to rouse an equal echo in the minds of even highly trained thinkers, bred in other schools of thought. The medical view of insanity, and the medical view of vivisection, which appear to all medical men, with but a handful of exceptions, so entirely reasonable as to be beyond the possibility of contravention, are but grudgingly—if at all—accepted even by the more cultured of the laity ; and the same is true of many articles of sanitary belief. Even now, the most important measure that could be undertaken in the interests of the health of posterity—the establishment of a State institution for scientific enquiry into the causes of disease—would if proposed in the House of Commons be, to a certainty, pooh-pooh'd by the Government, and laughed down by its supporters. Thus while there are points in the Sanitary Evangel which appeal with irresistible force even to Bumbledom, there are others which are as yet almost too abstract for Downing-street. Between them there are questions of every degree of abstractness, and—we now come to the practical application of this exordium—the higher the class of mind that is drafted off to the every-day business of sanitation, the more hope we have that the vital sanitary interests of such a hive of men as London will meet with due appreciation.

The most admirable feature of Sir W. Harcourt's Bill is that, if passed, it will in all probability take the sanitary administration of the metropolis out of the hands of petty shopkeepers and place it in those of a better class of men, who, though they may not prove themselves capable of appreciating and carrying into practice the higher teachings of sanitary science, may at any rate be expected to introduce a less short-sighted policy, and a more dignified mode of procedure, than those for which the present vestries have distinguished themselves. We have an earnest of this in the spirit which the Metropolitan Board of Works, the London School Board, and the Asylums District Board have brought to their responsible labours ; and the new council of London ought to show itself as much in advance of those Boards, as the members of those Boards have shown themselves in advance of the vestries. The task that will be placed before them—the health and prosperity of no mean city—is one that offers scope for the highest human abilities, and the questions that are looming in the future in connection with the sanitary administration of London, are scarcely of less importance than many that engage the Imperial Parliament. The housing of the poor involves questions which—let the Royal Commission settle what it may—will have to be dealt with in a statesman-like manner and with a strong hand. The great smoke-abatement problem, on the successful solution of which the health and comfort of so many future millions yet unborn will depend, is another question involving the gravest issues. Add to these the questions of water-supply, sewage disposal, the provision of open spaces, school-sanitation, food inspection, the notification of infectious diseases, and hospital control, and it is manifest how important it is that the highest order of intellect should be enlisted in their settlement. All this has been for years apparent to every thinking man, and if anything was needed to convert those still unconvinced, it would be found in the ludicrous proceedings in the Common Council last week. If such speeches as were then delivered represent the spirit of the fathers of the City, which at present is admittedly the best governed section of the metropolis, what else could one expect in outlying parishes, but the petty personal strifes and cock-pit manners, that have reigned at one time or another in so many of the vestries. Happily their doom is sealed, and sooner or later, by a liberal or a conservative administration

they will be swept one and all into that crowded limbo into which so many time-honoured abuses have already disappeared.

The questions we have mentioned above are of an order to engage the attention and demand the decision of the Central council, but there will still remain many details of sanitary administration which will necessarily come within the province of the local boards. Principles once settled it will not be difficult to carry out details, but it must be remembered that it is upon the faithful and conscientious work of local administrators, that individual health and comfort must in the last resort depend. The wisest regulations will fail in their effect, if laxly carried into practice. There are many minor flaws in the sanitary administration of London which appeal for the reforming hand. To take one instance, the present system of refuse-removal is a scandal to a wealthy metropolis like ours. In the best parts of London the refuse of weeks is left festering under the dining-room windows until it suits the pleasure of the dust-contractors to remove it. Uncovered dust-carts are allowed to traverse the streets in the busiest hours of the day, scattering their contents broadcast over the passers-by at every swirl of the East wind. How long-suffering we Londoners have been to put up with this scandal all these years, when for no sensible increase of expense this refuse of each day could be put out and removed before we were out of our beds the next morning! Then there is the crossing-sweeper nuisance. We tolerate a crowd of lazy mendicants, supported by voluntary contributions, when for a tithe of the money so expended, we could have every crossing systematically swept by regularly paid sweepers, and not only those which lead to fashionable churches and other places where the wealthy and charitable resort. These are little matters, but how much of our daily comfort, if not of our health, depends on them!

One more consideration. London is our chief of cities, and the reform of its government is confessedly being undertaken by the ministry as the prelude of changes to be introduced in local administration throughout the country. Upon the success of the experiment in the metropolis, the interests of many other centres of population throughout the country will depend. London will set the example to many cities which are now even less fortunate in the matter of local adminstration than herself. If the new Central Council take up a bold and broad policy, if they give due heed to sanitary teaching, and determine to neglect nothing which can conduce to the health and convenience of their constituents, the same line will be followed in a hundred towns scattered up and down the country London will set the fashion, and it will depend upon the fashion she sets, whether the hard lessons of sanitary science shall be learned and followed with good will and enthusiasm, or shall need to be forced upon reluctant authorities by the pressure of the Central government. All these considerations show that there will be scope enough in the future administration of a united metropolis for the highest grades of intellect; scope, too, for that public spirit and willingness to labour unpaid for the public weal for which the more cultured classes of our countrymen have always been honourably distinguished.

THE GRIEVANCES OF JUNIOR OFFICERS OF THE INDIAN MEDICAL SERVICE.

We have received a pamphlet of some sixty pages, entitled *An Appeal from the Surgeons of the Indian Medical Service*, which appears to have been printed during the current year at Lahore. The title sufficiently expresses the character of the publication, but it hardly prepared us for the wholesale abuse of almost everything and everybody officially connected with India. Much as we sympathise with the grievances of Indian Medical Officers, and we have satisfied ourselves by considerable enquiry in various quarters that there are grievances of a serious character, we nevertheless cannot avoid expressing our sincere regret that such a publication as this should have been distributed by a body of officers holding commissions in one of our military medical services. Allowance should, perhaps, be made in that it purports to emanate from the "juniors," and for the bitterness engendered by hope deferred; still the whole tone of the pamphlet bears evidence that at least those concerned in its preparation could not have been the easiest of persons for either governments or individuals to satisfy and control. We venture to express the opinion that but an extremely small minority of the service could have seen the text of the appeal before its distribution. A sentence like the following for example, regarding a recently issued State paper, "that the apparent honesty of the new memorandum excites greater scorn than the Machiavellian duplicity of the old," could surely not have been promulgated with the approval of any representative body of public servants.

Having said so much regarding the manner, we now turn to the matter of the pamphlet. This has to a certain extent been epitomised for us by Mr. Gibson, the member for the Dublin University, in the questions which he asked the Under-Secretary of State for India on the 2nd of this month—(1) Whether the number of surgeons of the Indian Medical Service under and up to five years' service, employed on "unemployed" pay in Bengal alone, was 28 out of a total of 59 surgeons; and (2) whether it was a fact that all these 28 surgeons employed on "unemployed" pay were not only supernumerary to the actual number of appointments, but were even also supernumerary to those surgeons who were only "officiating" for officers who really held these actual appointments, but were at present on leave. Other questions were asked, but these were the principal. In replying to them, Mr. Cross allowed, in effect, that such was the case, and explained that the 28 gentlemen formed a portion of the reserve needed for the medical service, the ordinary reserve to meet furloughs and casualties being 20 per cent. on the number of appointments.

In reality, so far as we can gather, the real grievances under which this medical service now labours, and under which it has laboured for years, is the underpayment of the "reserve." In former years this may not have been felt to so great an extent, but now that the value of the rupee has fallen by nearly one-fourth, at least so far as remittances of payments to England are concerned (and where is the young officer who has not to make such remittances, even though he may

have no family in England to support?) it would be not only a generous, but also a politic act, were the Government of India to say once and for all that, as regards its military medical service at all events, in future *all* officers would be accorded the full-pay of their rank, irrespective of the duties allotted to them. The annual cost of such a concession would, comparatively speaking, be but a trifle to the Government, but from all we can gather, the gain would be great, for it would have a contented body of medical officers at its command, and administrative officers would be able to distribute them in the most advantageous manner to the State, without having to calculate in the first instance, what effect their acts would have on the pecuniary prospects of the surgeons concerned.

We would strongly urge on the Government the advantage which it would derive from adopting such a course. We do not join those who accuse the Government of having knowingly broken its covenant in this matter. But it is evident that the candidates for the service placed a different interpretation on the terms of the memorandum from that which the Government intended them to bear, and their mistake has been specially brought home to them by the block in the service which has resulted from a diminution in the number of appointments. The Government published a certain scale of unemployed pay, and a scale of payment for the various appointments, but in a subsequent paragraph stated that a medical officer, however employed, would be restricted to the unemployed rate of pay until he had passed a certain examination in Hindustani. This, together with another paragraph, appears to have been taken by the candidates to mean that the pay of all officers who passed the examination would be at once raised from the unemployed rate of 286 rupees to 400 rupees per mensem. All that the Government meant, however, was that an officer who had not passed in Hindustani, even if gazetted to an appointment, should only receive the lower standard of pay. It was simply an arrangement for compelling officers to get through their Hindustani examination quickly. Unfortunately and quite naturally, however, it was read otherwise by the candidates; and, admitting this, the Government will be but acting wisely if it makes up to them for the mistake to which its own ambiguous phraseology gave rise. This, however, is not the only complaint of the officers. It would appear that, by a recent order of the Commander-in-chief, junior surgeons of the Indian Medical Service, "whenever they are in excess of the appointments with native troops available for them are to be attached to Station hospitals of British troops, for the purposes of instruction in the illness of Europeans in the country, and for the acquirement of a knowledge of the routine of medical duties in connection with European troops." We cannot agree with the writers of the pamphlet that this is a slur on the members of the service; indeed it seems to us that having the opportunity of seeing on their arrival in the country how the clerical and other duties connected with hospital work in India are carried on should be welcomed as a boon rather than as a grievance, but we would urge that even whilst on such duty the officers should commence to draw the full pay of their rank as soon as they have, like other officers of local corps, passed the required examination in the vernacular.

In replying to one of Mr. Gibson's questions in this connection, Mr. Cross stated that whilst thus engaged, surgeons of the Indian Service drew less pay than those of the Army Medical Department, but this should not be, and the fact that Mr. Cross was able to add that "for the remainder of their service their prospects are much better, and their average salaries much higher," does not diminish the grievance complained of.

We have not space enough to refer to several of the other minor grievances referred to in this *Appeal*, some of which, we must say, appear to us to be of a very trivial character, whilst others are not strictly in accordance with the facts. For example, at page 13 it is written:—"Before finally passing on to the results of our efforts for obtaining our rights, we make a passing allusion to a totally unnecessary farce that is performed at Netley at the end of each term," namely, the announcement that the two senior successful candidates on the list have been specially recommended to the Secretary of State for India. The present edition of the Bengal Army List, it is stated, shows that not a single surgeon who has as yet been so recommended, has obtained a post on the Staff of the Calcutta Medical College. We have looked into this matter and find that of the seven or so professorships at this College, six are held by men who have passed through Netley—the seventh, which carries the Principalship with it, is held by an officer who entered the service before Netley was established. Now of these six, no less than three are held by men who took a *first* place at Netley—Professors Macleod, D. D. Cunningham, and McConnell. Surely the junior members of the service do not expect that, when filling up posts on the staff of such a college, the claims of their seniors should be overlooked by the authorities concerned, so long as such competent men as those above named are to be found amongst them.

As already observed, we have taken considerable pains to look at the questions discussed in this pamphlet from all points of view, and have not hesitated to express an adverse opinion when this seemed to be called for. On the other hand, we do feel very strongly the urgent necessity which there is for the Government to meet the well-grounded complaints in a generous and liberal spirit. *Bis dat qui cito dat.*

SCHOOL PUNISHMENTS.

The Medical Officers of Schools' Association, whose inaugural meeting we chronicle in another column, is not likely to languish for lack of subjects deserving its consideration. Indeed, if the modern school-child were not a child, or if he had attained that precocious development which some authorities would have us believe is being rapidly induced by the modern methods of education, there might be some reason to dread the effect upon him of the keen and general interest with which his present position is discussed. Happily, childhood is not, as a rule, acutely sensitive to the attention which it excites, unless that attention takes a form which is personally offensive; and even to this successive generations of scholars have become more or less accustomed. Discipline is the inseparable companion of instruction, and neither is at all times attrac-

tive; but an examination of some of the means by which it has been sought to maintain the former, seems almost to indicate the existence, in domestic legislators, of a perverse ingenuity in making both of them needlessly repellent.

The history of a nation's civilisation is fairly reflected in that of the various punishments which it has from time to time abandoned, modified, and adopted. As knowledge spreads, morals improve, and manners soften, reformation rather than vengeance comes to be the dominant idea in devising punitive treatment for the ill-doer; and while it is sought to permanently influence the delinquent's character for good, care is taken to avoid lasting injury or mutilation of his person. The rough *tu-quoque* principle which decreed the sacrifice of a hand or of an ear, and which sanctioned the stocks, the pillory, and the "tumbril" or ducking-stool, gives way to the cat for the garotter, hard labour for the felon, and simple incarceration for the "first-class misdemeanant." The more a people learns to realise the value of both parts of man's nature, the more does it recognise that correction is not necessarily identical with chastisement, and that the latter, to be effective, need not be cruel either in application or in result. The more widely such truths have been recognised and acted on, the greater has been the mental and moral progress of the nation at large. This is true of punishment in its social no less than in its legislative aspect; for the public opinion which demands the decent regulation of criminal executions is but an echo of the gentler manners and wider intelligence which find an appropriate field in the training of children at home and at school. To many of us it has been a source of genuine gratification to believe that the more intelligent portion of the public was now pretty generally alive to the fact that the essential organ of hearing is a delicate and fragile apparatus, which may be irretrievably damaged by "a box on the ear;" and we would hope that the knowledge of this fact—and the caution which such knowledge should beget—will, in due time, permeate those other classes of society, amongst whose rough-and-ready methods of administering justice (and injustice) this particular form of personal chastisement still holds a dangerously popular position. On the other hand, we cannot but experience both surprise and regret when we read of a magistrate advising a perplexed parent "to box his son's ears and bring him to his senses," because it is not from such a source that we expect a check to be given to the spread of an intelligent humanity amongst the masses; and we dread lest the rational teachings of civilisation and of medicine should be more than nullified amongst those to whom they are most necessary, by this legal *imprimatur* of a custom to which the thoughtless are, under all circumstances, only too prone. The remonstrances and warnings of the doctor will, for many minds, weigh but lightly against a magisterial statement of the legality—and, further, of the practical advisability—of a punitive method, which possesses the obvious advantages of simplicity and ease in application, and of which the effectiveness can be graduated in accordance with gravity of the offence, or the ire of the castigator, as the case may be. It may be contended that care was taken to ensure the administration of both antidote and poison in the same spoon, since the father was recommended not merely to box the luckless youth's ears, but to "bring him to his senses" (if possible, we presume) afterwards. We would respectfully submit, however, that the successful carrying out of such a line of practice implies a trained discrimination and a delicacy of manipulation, which are usually wanting amongst those who are most likely to attempt it; and that any form of punishment, whose effects on the recipient are such that efforts must afterwards be made to restore him to his senses, is one more honoured in the breach than in the observance.

The mechanism by which—or, at least, one of the modes in which—a blow on the ear or on the side of the head may produce deafness and other forms of ear-injury, was described in an interesting paper on the "Function of the Membrana Flaccida of the Tympanic Membrane," which appeared in *Nature* for December 7th, 1882, p. 129. The writer showed that the upper and more opaque portion of the membrana tympani is comparatively loose, being mainly attached at its margin to the skin of the smooth upper wall of the meatus, and is thus easily displaced by a little gentle pressure outwards or inwards. The lower portion of the drum of the ear is fixed by its connection with the os tympanicum; while the upper portion (membrana flaccida) lying above the handle of the malleus, and having apparently no direct connection with the chain of ossicles, blends, at its superior margin, with a piece of movable skin, which glides on the smooth-polished surface of the upper semi-circle of the bony meatus, and is directly continuous with the movable membranous roof of the cartilaginous portion of the external auditory passage. The movable piece of skin, therefore, serves as a tendon, and the muscle which mainly plays upon it is attached to the upper membranous wall, just mentioned, at its point of junction with the osseous meatus. The muscle in question is, according to Henle, the musculus epicranius temporalis, (occipito-frontalis). Its action is further assisted by that of other small auricular muscles, especially the attolens, and it is brought into play when the eyebrows are forcibly raised by the contraction of the occipito-frontalis. It will be seen, then, that when this muscle contracts, it pulls the membranous roof of the auditory canal upwards and slightly forwards, thus telling upon the membrana flaccida, which is, even in the adult, almost in a line with the upper wall; the effect of this movement is, in opposition to that of the tensor tympani muscle, to draw the umbo or deepest part of the membrane outwards, and thus to bring the tympanic membrane generally into a more vertical plane relatively to the lower wall of the meatus. "This is, beyond all question, its position for acutest hearing; and it is thus important to observe that by the single contraction of the occipito-frontalis muscle both eyes and ears are brought simultaneously into the attitudes of strained attention. Hence, in endeavouring to hear, as well as to see intently, we involuntarily raise the eyebrows in order to tell upon the drum of the ear." It needs no reference to the "knee-jerk" and other familiar reflexes, to perceive how—without the direct action of any violent concussion of the air, such as un-

doubtedly sometimes occurs, *e.g.*, in artillery firing—a smart blow on the side of the head may induce sudden spasmodic contraction of the muscle, and thus, through the action of the mechanism described, bring about serious injury, or even rupture of the drum of the ear.

The faculty of hearing is not the only one which is apt to suffer in childhood through the ignorance or heedlessness of parents and preceptors. It is a tolerably safe as well as a charitable maxim that the stupid child, so called, is in most cases a deaf or an amblyopic one. But the victim of ametropia is still too commonly condemned, by way of punishment for its supposed laziness or inattention, to further and excessive abuse of its delicate and imperfect eyesight, until, perhaps, Nature's indignant remonstrance—in the shape of a "sick-headache"—leads to a parental diagnosis founded on the convenient ætiology of surreptitious toffy or unripe fruit, and to a treatment by castor oil and starvation, which is successful, for the time at least, because it includes the unappreciated factor—rest. There exists another variety of school punishment which a somewhat squeamish humanity affects in preference to any form of corporal chastisement. We refer to the different forms of written imposition. What the exact value of these may be, from a disciplinary point of view, we cannot profess to determine; no one who knows or remembers anything of school-life will pretend that one boy in a hundred so punished learns anything valuable, or in a valuable way, from a passage which he writes as fast as is consistent with tolerable legibility, often from friendly dictation, and with no more acquaintance with its sense or meaning than is necessary for the avoidance of gross and obvious errors; or that he reaps any moral benefit from the "lines" which may sometimes be copied during the hours of regular school work, and which, if a sufficient similarity of handwriting can be assured, may even be contracted for upon one of the many fluctuating bases of school-boy barter and exchange. It is, at least, certain that the custom is one which lays an extra burden upon the child whose play-hours should be devoted to recreation; which tries the eyesight, and tends to dull rather than to brighten the intellectual powers; which favours a stooping habit, contracts the chest, and rounds the shoulders; which keeps the child indoors when he should be out; and which fosters crabbed and illegible cheirography. If such punishments must be worked out during play-hours, then their nature and method should be so contrived, that they may not directly aggravate the necessity for that fresh air and bodily exercise upon which depends the value of play as opposed to mental work. In most of our larger schools, at all events, some such arrangement would not be impracticable. Many of these possess a carpenter's or other similar workshop, in which not a few boys spend much time for their own amusement, and in which, in some instances, they have the advantage of receiving regular instruction. The carpenter or blacksmith would be able to gauge the working capacity of each of his pupils, who might be arranged in classes accordingly; and thus, in place of so many hundred lines, or so many copies of that misconstrued passage, the delinquent would receive the order to saw, square, and plane up so many feet of quartering, to turn a chair leg of a certain pattern, or to forge so much iron work, according to his capabilities and the gravity of his misdeeds. Work of this nature would imply, not merely active, healthy, bodily exercise under good hygienic conditions, but would entail the acquisition of practical knowledge which could not be useless, and which might at any time prove most valuable to its possessor. Its punitive character would be sufficiently ensured by the consideration that it took the place of an equivalent of cricket or of football, &c., and, above all, by the fact that it was compulsory and not voluntary labour. The famous method of Mr. Squeers, who made his pupil, after having spelt "horse," rub it down, deserves something better than the ridicule which it usually provokes. For, after all, was it not a form—crude, it may be—of those "object-lessons" in which all the value of modern scientific education is now said to consist?

Do what we may, however, so long as human nature is human nature still, there will continue to arise from time to time, the necessity for a resort to some form of corporal punishment; and while parents and school-masters continue to exist, and to exercise authority, the question as to its character, and the least undesirable method of inflicting it, will have to be faced. Let us then in the first place, and *pace* the Magistrate, strike out boxing the ears from the list of allowable forms of chastisement. Caning—judiciously inflicted—is infinitely more merciful, and is surely not ineffective; the birch is better even than the cane, while its application is a practical enforcement of the valuable aphorism, "Union is Strength." As regards the exact site of punishment, caning on the palms and fingers is not without its dangers in some hands; and, indeed, the posterior aspect of the human form divine commends itself on all the grounds of mercy, convenience, and æstheticism. Striking the head is out of the question; it is not desirable to introduce the bastinado; blows on the back and shoulders may easily produce needlessly painful and severe results. These objections do not here apply with equal force to the glutæal region. In Gleig's "Life of the Duke of Wellington," it is related that at the battle of Orthes the duke was unhorsed by a ball which struck and glanced from his sword-guard. "He was on his feet, however, again in a moment, and in a condition to laugh at the Spanish General Alava, who had likewise been wounded, almost at the same instant, in that fleshy and very sensitive part of the body, any accident to which is apt to excite the mirth rather than the sympathy of lookers-on." We may conclude, from lack of evidence to the contrary, that the Spanish General recovered from the "punishment" which had in it something of an undignified, because of a puerile character. Fortified by such an instance—not to mention the famous example of the Empress Maria Theresa herself—we would, in the place of head, ears, and hands, earnestly recommend as a more appropriate site for castigation, that portion of the human frame which is sensitive enough to satisfy the sterner demands of justice, and which, at the same time, is so constructed as to sustain with impunity violence which cannot safely be administered elsewhere.

REVIEWS AND NOTICES OF BOOKS.

Traité de l'Affection Calculeuse du Foie; par Dr. Jules Cyr. Paris: Delahaye et Lecrosnier, 1884.—Within the last year or two, Europe, and more especially England, may be said to have suffered from a veritable epidemic of hepatic literature. For, in rapid succession have appeared Legg's work on Bile and Bilious Disorders; George Harley's treatise on Diseases of the Liver, with and without Jaundice; Ruckley's book on Diseases of the Biliary Passages and Portal Vein; a German edition of Harley's treatise by Drs. Kraus and Rothe; and lastly the work of Dr. Cyr, the title of which heads this article. And the marvel to us is not only how all these authors can have found something new to tell us on the disorders of one solitary organ of the body (notwithstanding its being such an important one), but how they can find a sufficient number of purchasers to make their literary speculations profitable. No doubt, the sale of the volumes differs quite as much as the value of their contents. For only two of them, in our opinion, are the offspring of original thought, and these two form a marked contrast to the others (which are mere learned compilations) and may be truthfully said to mark a new epoch in the study of liver diseases. As regards the volume now under review, we may say that, small though it be, it is in our opinion the master-piece of its author, who is already well known as an able exponent of this department of clinical medicine, for in it he has done good service to the profession, by opening its eyes to the fact that gall stones are not only a very common cause of grave disease, but (contrary to the general belief) often lead to fatal results. The reason why the generality of the profession has remained in total ignorance of these facts is not far to seek. It may be said to have arisen from the erroneous teachings of our schools. For how could men diagnose cases of gall stones when they had never been told that the most dangerous cases of them might occur without a trace of jaundice (p. 163), or even pain, and that the only symptom manifested by some rapidly fatal ones, is discomfort in the hypochondrium, associated with some of the ordinary feelings of chronic dyspepsia. For example, a gall stone slowly ulcerating its way out of the gall bladder produces not a vestige of jaundice, and scarcely any pain, though it may be accompanied with considerable tenderness on pressure. Yet it may suddenly kill the patient by opening an artery and producing copious internal hæmorrhage (p. 185). Or cause a speedily fatal peritonitis by ulcerating its way into the peritonæum. Gall stones, moreover, from the mere severity of the pain they excite, occasionally bring about the death of the sufferer by collapse, coma, or convulsions (p. 190). While, again, as our author shows, the immediate cause of death by syncope in cases of heart disease is not unfrequently due to the pain produced by a gall stone, and that associated with hernia to the irritative effects of a biliary calculus in the digestive canal (p. 188). Another useful hint he gives is the calling prominent attention to the frequency with which abscess of the liver, cancer, and also ulcer of the stomach may be said to have been originated by the presence of an impacted gall stone, and at pp. 128–131, he does further service by showing how even distinguished physicians, from their want of a special knowledge of hepatic diseases, mistake the signs and symptoms of gall stones (when unassociated with jaundice) for such stomach derangements as gastralgia, dyspepsia, and ulceration. Hence some of the most important chapters of the book are those devoted to differential diagnosis (p. 128), and the symptoms of ulcerating calculi (p. 241). We cannot close our remarks without calling attention to the chapter headed "Intermittent Hepatic Fever," as it is a subject which few practitioners in this country (beyond those who make liver diseases a special study) know anything about. Dr. Cyr points out how the intermittent fever of hepatic disease, which is frequently met with among us, differs from ague in usually recurring between the fifth and ninth day; the attack commencing in the afternoon or evening, there being generally no rigors; but only a feeling of chilliness, with scarcely any sweating stage; the temperature not exceeding 99°, and the pulse being under 100°. In cases of exceptional severity, however, there are, as in true ague, both rigors and a marked sweating stage, with high temperature, and rapid pulse. The two diseases are, however, even then, by no means identical; for besides the differences they present in the times of their attack they show the still further distinguishing peculiarity that while the one is amenable to the action of quinine, the other not only fails to be benefited, but is often made worse by it (p. 199). Throughout the book there are some most judicious remarks on medicinal treatment, as well as a great deal about the beneficial effects of the waters of Vichy in gall-stone cases; which is natural enough, seeing that its author is one of the medical inspectors of that renowned French watering-place. We cordially recommend its perusal to our readers, as we can unhesitatingly pronounce it the best book on the specialty of gall stones we have yet seen.

Elements of Human Physiology; by Henry Power, M.B., F.R.C.S. London: Cassell & Co.—It is not without a certain feeling of regret that we are obliged to own that this book will have a good sale, and this regret is occasioned by the fear that too many students will be induced to confine their attention to these small manuals, to the neglect of larger and better text-books. We are not in favour of small books which profess to give in small compass what standard text-books take long to tell. The book before us is not without merit; it is neatly got up, clearly printed and possesses good diagrams, and furthermore is written by an Examiner of the College of Surgeons: its sale is thus secured. But let us give the young student a word of warning. Physiology, which in after-life is capable of wider application than anatomy, and which will help the practitioner to solve his clinical problems long after he has forgotten the dissection necessary to expose the chorda tympani, is not to be learnt without a judicious expenditure of reasoning power. That is where small books fail. The anatomical method of cramming facts and learning by rule of thumb is necessarily encouraged. Therefore we say to young students "Avoid all small books, and make your Foster your physiological guide." The book before us may be very useful to the advanced student who, just on the verge of an examination, wishes to refresh his knowledge, but is not to be recommended to the tiro who is in search of general principles. We should have welcomed this book had it been less ambitious, and dealt with elementary things and general principles. There are some parts that require re-writing. Having read it very carefully, we may point out the following defects: The account of coagulation of the blood is very meagre, and no mention is made of the theories advanced by Hammarsten, which are probably quite as correct as Schmidt's. The normal spectrum of blood should have been more fully described. No mention is made of the modern views on the question of cardiac innervation, which are taking firm hold of the physiological world. We object to such loose expressions as that "muscarin and digitalis excite the vagus." Poisons act on the muscle. We think that Martin's experiments prove the internal intercostals to be only expiratory, and this should have been mentioned. A very important omission occurs in the case of asphyxia, which should have been fully described. In the chapter on urine, the so-called qualitative tests are quantitative, and no mention is made of the two well-known crystal tests—the nitrate and oxalate of urea. The description of the estimation of urea by Liebig's method requires re-writing. Not silver nitrate, but mercuric nitrate should be used. Why should soda solution "be added to neutralisation?" The silver nitrate is added to precipitate the chlorides, which otherwise interfere with the precipitation of all the urea. The connection of hippuric acid with glycin should have been mentioned. Why does Mr. Power say "casein, *or* potassium albuminate?"

In the section on the origin of fat, it is stated that it arises by simple storing up of fat ingested, and only partially from carbohydrates and proteïds. Subbotin's experiments show that very little fat is stored in the form eaten, and the carbohydrates must be considered the chief factor in fat production. It is wrong to speak of the submaxillary

ganglion as a centre of reflex action (p. 104). Since Bernard's time many physiologists have been engaged in showing that it is not such a centre. No mention is made of syntonin in gastric digestion, and none of alkali albumen in pancreatic digestion. The latter is said to convert proteïds into *globulin*, but on what grounds is not stated. No mention is made of saponification or emulsification by the bile, but much is said as to its questionable diastatic ferment. Mr. Power states that muscle requires oxygen for the *manifestation* of its activity. This is precisely what it does not require since it works well in an atmosphere of nitrogen, and only requires oxygen for the maintenance of its activity. Protagon should have been described as a compound of cerebrin and lecithin, a phosphorised and a non-phosphorised portion. Glycogen is said to be split into "achroodextrose and ptyalose." What is ptyalose?

We have said enough to show that there are numerous defects, and some bad errors. The book bears traces of hasty writing, and no doubt in another edition some improvements and judicious pruning will be effected. The little volume is a handy one for senior students and others already having some knowledge of physiology. The chapter on the eye is good, as one would expect from so accomplished an ophthalmic surgeon. The little *résumé* of development forming the last chapter is a valuable addition, and there is a useful appendix containing much that is up to the latest date respecting physiological chemistry.

Museum of the Royal College of Surgeons of England. Catalogue of the Osteological Specimens. Part II. Mammalia. Edited by W. H. Flower, LL.D., F.R.S. London: J. and A. Churchill, 1884.—This volume completes the specimens illustrating Human Osteology in the great museum in Lincoln's Inn Fields. The college authorities may congratulate themselves on the termination of this important work by Professor Flower, before his almost invaluable services were lost to the college. The nomenclature to be used in a museum of this kind is always a matter of considerable importance, and the determination to adhere to the Stricklandian Code will probably meet with general approval. As Professor Flower says, the aim in such a work as the present is simply convenience and general accord, and it is often better to put up with a small error or inconvenience in an existing name than to incur the much larger confusion caused by the introduction of a new one. No new names have been introduced, and many generic divisions have been altogether omitted. The number of specimens in this portion of the museum is 3,972, and in every instance, where possible, the locality whence the specimen was obtained is given. References are given to former editions of the catalogue whenever necessary, fuller details being contained in them than in the present edition. There are two alphabetical indices, one giving the scientific names and synonyms, the other the English names.

ABSTRACTS AND EXTRACTS.

THE QUANTITATIVE DETERMINATION OF MICRO-ORGANISMS IN ATMOSPHERIC AIR.[1]

By Dr. W. HESSE.

With the constantly increasing knowledge of the behaviour and influence of micro-organisms in the production and spread of disease, it becomes of the utmost importance to obtain some clear idea of the manner in which such micro-organisms may be conveyed from one body to another. The influence of solids and fluids in the conveyance of infection has been already successfully elucidated, and the task remains to investigate in like manner the extent to which gaseous matters, and especially atmospheric air, are capable of playing a similar part. The processes hitherto employed for this purpose have been unsatisfactory in their results, allowing neither of complete microscopic examination, nor of any approach to quantitative analysis.

In his present research, Dr. Hesse adopted a method which has overcome both these defects. His plan, briefly, was as follows:—He caused a definite quantity of air to pass slowly through a tube of fixed proportions, by means of syphon action, the tube itself being thoroughly cleansed and sterilised before the commencement of the experiment, and its walls covered with a thin layer of peptone gelatine. The aspirating action of the syphons, being under complete control, admitted of accurate measurement of the volume of air passing through the tube, and also of the rapidity of the current. The tube itself, graduated in centimetres and millimetres, was closed at one end by a plug perforated by a single opening for the entrance of air, and at the other by the narrower tube for its exit, the latter tube being furnished with two plugs of gun-cotton placed at a little distance apart, through which the air must of necessity pass to reach the flasks arranged in series, one above another, by which the syphon action was maintained. In his first recorded experiment a small colony of bacteria became developed on the gelatine at the fifth centimetre from the entrance to the graduated tube, within the first twenty-four hours; the quantity of air being at the rate of one litre in 6·4 minutes. On the following day three other centres were observed, and with each succeeding period of twenty-four hours, the number of colonies of bacteria increased in number, and presented themselves at intervals farther and farther along the tube from their point of entry. In a second experiment, in which a larger volume of air was passed in a shorter time through a tube of somewhat greater calibre, the number of bacterial centres formed was more numerous, and at the same time extended much farther along the tube. In neither case, however, did the development of these colonies of bacteria extend, even after four days, over its full length. Dr. Hesse draws the following deductions from these results: (1.) That the current of air in its passage through the tube becomes more and more free from bacteria, until at last it contains none. (2.) That the more slow the passage of the current through the tube, the more are the bacteria found in the neighbourhood of the entrance. From these conclusions he is led to believe, that in the case of the slower current he ensures the deposit of all the bacteria which the air contains, and very nearly all from the more rapid current. In both experiments the micro-organisms, developed farthest from the point of entrance, were fungoid in character, being distinct from the bacterial forms which were deposited farther back. This is explicable only on the assumption that the spores of the fungoid growth are more easily borne in the air, or that the bacteria are carried in clusters, instead of singly, and thus become of greater weight. All the colonies were developed upon the lower half of the tube, which during each experiment was kept fixed in the horizontal position. The fact thus proved is one of very considerable importance, as showing that these micro-organisms are possessed of sufficient weight to cause them to become deposited in still air, and, therefore, that strong currents are essential for their transference from place to place.

In order to prove the complete deposit of all the bacteria in the air under examination, a close inspection of the gun-cotton plugs in the exit tube was made, by surrounding them with cultivation-gelatine similar to that within the tube; they showed, however, no traces of bacteria. In estimating the quantity of micro-organisms thus drawn into the tube, one important factor remained to be considered, viz., the size of the aperture of entrance. After many experiments to test the influence of openings of various sizes, upon the ultimate result, the conclusion was arrived at that an opening, similar in calibre to that of the tube of exit, was to be preferred in all cases.

Having thus constructed an apparatus, in all respects trustworthy for the purpose, Dr. Hesse instituted a series of investigations which will doubtless form the ground-work of a new and most important line of enquiry. Of those recorded in his present paper, the principal experiments were made upon the air in dwelling-houses, hospitals, and amongst building materials, rag-picking yards and dung-

[1] "Reports of the Imperial Board of Health in Germany." Edited by Dr. Struck. Vol. ii. 1884.

heaps. Observations also are recorded of the atmosphere in cow-houses and stables, and in the open air of the town and country respectively. The results obtained, too varied and extensive for satisfactory analysis within narrow limits, will be read with much interest by all who are occupied in the study of micro-organic life. With some disappointment, however, will the statement be received, that this method of quantitative determination of bacteria has not as yet been made applicable to the discovery and isolation of the tubercle bacillus. The difficulties, although fully recognised, have not yet been overcome; but the success which has thus far attended his efforts in this direction renders it highly probable that we shall be able before long to welcome a further contribution from the author, in which this point also will be elucidated.

DERMATOLOGY.

Dermatosis Diabetica.—An address on the subject of the various skin affections met with in diabetes, lately delivered by Professor Kaposi, is published in the *Wiener Medicinische Wochenschrift*, Nos. 1-4, 1884. The case, forming the text for the subsequent remarks, was one of a peculiar and hitherto undescribed form of gangrene occurring in a woman of 51, the subject of diabetes. The affection was confined to the left leg, on which there were found patches of gangrene and bullæ containing turbid serum. The development of the bullæ appeared to be the initial process, gangrene taking place underneath them; but, instead of becoming circumscribed, the gangrene appeared in places to be spreading in a serpiginous manner by the continued falling in of neighbouring islets of disintegrating tissue. In other parts a partial healing and cicatrisation had taken place. Dr. Kaposi gave to this case the descriptive title of Gangræna bullosa serpiginosa. The diagnosis of its diabetic origin was arrived at by a process of exclusion. The only other form of gangrene liable to be confused with it was that due to neuritic changes, but the distribution of the patches sufficed to negative that supposition. By special treatment the diabetic symptoms were reduced, and a partial improvement took place in the spread of the gangrene, but a few months later, the gradual return of the glycosuria was accompanied by a steady advance in the gangrenous condition, leading to death within six months of the commencement of the skin affection. Throughout the illness there was no fever, severe and continuous pain, however, had always been present. The treatment was chiefly symptomatic, and the only local application which gave any relief was olive oil and lime-water. Passing in review the various forms of skin disease which may occur in the course of diabetes, Dr. Kaposi mentions asteatosis and anidrosis, pruritus, urticaria, acne cachecticorum, roseola and erythema as the chief functional or nutritive forms of inflammatory eruptions which may be present. The various degrees of eczematous inflammation are very frequently due to the direct irritative influence of diabetic urine, and hence frequently manifest themselves on or about the genital organs, especially in women. The question, however, has been freely discussed, as to whether the irritative effects are not to be attributed to the presence of fungoid growths in the diabetic urine rather than to the grape sugar itself, or even, and this seems the more probable, to the presence of irritative salts of ammonia, the products of chemical decomposition. Paronychia diabetica is a condition not unfrequently met with, but perhaps the most common of the diabetic dermatoses are furunculosis and anthrax. The former especially is recognised by many observers as an early symptom, or even as a forerunner, of the general disease. Carbuncle generally occurs as a late concomitant of furunculosis, and is in some cases a rapidly fatal complication. By some authors it has been assumed to be itself the first indication of the diabetic condition, but this view is combatted by Professor Kaposi, who finds that in almost all the recorded cases no examination of the urine was made before the appearance of the carbuncles. With respect to gangrene, apart from boils and carbuncles, it would appear that its occurrence is rare, but in nearly all the cases on record, the legs and feet seem to have been the parts most affected. In some cases, perhaps, the possibility of gangrene from marasmus or from atheroma of vessels, must be recognised, but the greater number of cases are undoubtedly in direct association with diabetes. None, however, present the peculiar features of serpiginous increase and partial healing, noted in the present case. The presence of grape sugar in the tissues must be regarded as the cause of all these skin affections. Pruritus may be due to direct irritation of cutaneous nerve fibres, although central irritation may also play a part in its production, the nerve control of secretion and of circulation, may in like manner be disturbed, and thus, nutrition be interfered with. The tendency to gangrene, whether it be of the lungs or of the skin, localised or diffused, is a very marked feature in diabetes. Reproduction of tissue also would seem to be generally interfered with in most cases, although instances of papillomatous over-growth of inflamed tissues are not wanting in medical literature; with the description of such a case Dr. Kaposi's address is concluded.

Local Applications in Eczema.—In a lecture on eczema, Dr. Duhring, of Philadelphia (*Medical News*, March 8th), after dwelling on the importance of constitutional treatment in many cases, enumerates the following as the best local applications:—In the *erythematous* variety, usually met with about the face, he recommends carbolic or boracic acid, especially the former, as in this formula: Acid Carb. ʒss, Glycerinæ gtt. xv, Alcohol ʒj, Aquæ ʒiv; also one of calamine and zinc oxide: Calam. Zinci Oxyd. aa, Glycerinæ aa ʒss, Aquæ Calcis ʒiv; and the following Zinci Sulph. Pot. Sulphuret aa ʒss, Aquæ Rosæ ʒiv, twice a day for ten minutes. In the *vesicular* variety, when acute, excellent results follow the use of black wash, followed immediately by oxide of zinc ointment. This is a valuable, mildly stimulating, drying ointment, and is useful, both alone and in combination. Of the various dusting powders, the following is one of the best: Talci Veneti ʒiv, Zinci ox. ʒj, Amyli ʒiii, Salycylic Acid gr. x or xv to the oz. of lard, and oleate of zinc 1 drachm to the oz. does well in some cases; and the above calamine lotion is also valuable. *Papular* eczema, as a rule, requires strong lotions, and that of carbolic acid is one of the best: Acid Carb. ʒiss to ʒiii, Aquæ Oj. Thymol 1 to 3 grs. to the oz. of water may be used, as also liquor picis: Picis Liquidæ ʒij, Pot. Caustic ʒj, Aquæ ʒv. This is to be diluted with water, 1 drachm to 2 or 3 oz. of water. Strong sulphur ointments are sometimes very valuable. In the *pustular* variety ointments of calomel, white precipitate and sulphur, from 1 scruple to 1 drachm to the oz. of lard, may be recommended. In the *squamous* variety, tar is the most valuable remedy, and may be used as the *huile de cade*, 1 or 2 drachms to the oz. of lard, or as tar ointment, or as liquor picis alkalinus as above. Ammoniated mercury, 15 to 60 grains to the oz., is serviceable. When large surfaces are involved, a remedy like tar should be first tried on a small patch, to determine whether it will agree. In *eczema rabrum* of the leg, the rubber bandage may be frequently used with benefit. No one remedy can be positively relied upon to effect a cure in a given case, especially where the lesions are extensive.

Local Treatment of Facial Erysipelas. — Dr. Schallenberger states that for several years he has employed a mixture of salicylic acid, one drachm, glycerine and rose-water of each half an ounce, which he applies by means of a camel's-hair pencil frequently and thoroughly to the affected parts, taking care to cover well beyond the line of demarcation. He has a record of quite a number of cases so treated, and in every instance the first or second application has been sufficient to check the spread of the disease. The only internal treatment was saline water or mixture.—*Philadelphia Medical News*, April 5th.

Scleroderma in the Adult.—Dr. Nicolich, of Trieste, terminates a long article in *Lo Sperimentale* for October with these conclusions: (1) Scleroderma is a special inflammation of the dermis and subcutaneous conjunctival

tissue, which also attacks the mucous membrane of the mouth and of the vagina, and pursues a slow course, commencing with hyperplasia, and terminating with atrophy of the parts attacked. (2) This inflammatory process is in all probability secondary to trophic nervous changes. (3) It may invade the skin of the entire body, but the upper half is most frequently affected. (4) Females are more predisposed to it than males, and it is met with at all ages, but principally between the twentieth and thirtieth year. (5) The most frequent occasional cause is the action of cold on a sweating skin, or simple overheating. (6) The cure of the disease is only possible in its first stage, but material improvement may be obtained in the second stage. (7) "Massage" and electricity are the means from which the best results have been obtained.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 18TH, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

Sequel to a Case of Perichondritis of the Larynx.

THE paper, to which the following is the sequel, was read before the Society by Dr. DE HAVILLAND HALL on April 28th, 1882. The subsequent course of the case showed how untrustworthy negative histories are, as the *post-mortem* revealed marked syphilitic lesion, so that the perichondritis was almost certainly of syphilitic origin. The patient, a man, aged 25, was admitted into Westminster Hospital on October 9th, 1882, wearing a tracheotomy tube, for the purpose of having his stenosed larynx dilated. The day after his admission painful swellings of the joints and in the muscles developed. These disappeared under the use of large doses of iodide of potassium and the inunction of blue ointment, but the pain and febrile disturbance prevented any treatment of the laryngeal stenosis. In the beginning of February, 1883, the patient left the hospital, free from pain but very emaciated. He was then lost sight of till July 2nd, when he was re-admitted into the hospital, suffering from albuminuria and diarrhœa, and he died two days later. The autopsy showed constriction at the junction of the larynx and trachea, the aperture only admitting a No. 12 catheter; above the point of constriction the mucous membrane was normal; below, thickened, of a dark chocolate colour, and its surface bathed by a layer of yellow pus; the right cricoid cartilage was partially absent. The liver was a marked example of the fatty and lardaceous degeneration, and there were peri-hepatic and peri-splenic adhesions.

Schrötter's instruments for dilatation of stricture of the larynx were exhibited.

The PRESIDENT observed that it was frequently concluded that tumours which had become diminished under iodide of potassium were either aneurysmal or syphilitic. Such an inference was, in his opinion, unjustifiable; and in support of his view he quoted a case lately seen in Glasgow, in which severe pain had been relieved, and swelling reduced under iodide, in an ordinary cancerous tumour.

Dr. HALL pointed out that in his case the swelling had been not only reduced but completely removed. No ill effects had followed the passage of the instruments into the larynx.

A Case of Tubercular Tumours of the Larynx.

Dr. PERCY KIDD communicated the following case:—A patient, aged 50, who had suffered from cough, hoarseness, and shortness of breath for eight months, came under observation as an out-patient at the Brompton Hospital in the following condition:—chest, signs of consolidation of the upper part of the left lung, with complete absence of râles; larynx normal, with exception of the vocal cords; on the posterior extremity of the left cord was a spherical tumour, as large as a small pea; on the corresponding part of the right cord there was a small pinkish prominence; the pulmonary condition remained unchanged for months, scanty obscure râles being heard occasionally, but more often were absent. There was very slight increase in size of the laryngeal tumour, but the prominence on the right cord gradually assumed the proportions of a tumour, which, like that on the other cord, resembled a pea in shape and size. There was no further growth of the tumours. Ten weeks after his first visit, the patient was admitted into the hospital in consequence of a spasmodic laryngeal attack in the out-patient room, from which, however, he soon recovered. For the four months he remained in the hospital he had slight spasmodic attacks from time to time, depending upon the varying degree of swelling of the aryepiglottic folds. The tumours remained unaltered, and there was no change in the pulmonary condition. The aortic second sound was noticed to be much accentuated, and occasionally a systolic murmur was heard under the left clavicle, which was thought to be due to aortic dilatation or aneurysm. The patient was discharged after his condition had become stationary, the physical state of his chest and larynx being unaltered. A month later he appeared in the out-patient room with signs of excavation of the left lung, and with much swelling of the aryepiglottic folds, but without any change in the appearance of the tumours. He was re-admitted in a very weak state, and gradually became worse. The laryngeal obstruction increased so much, that tracheotomy had to be performed during a spasmodic attack in order to save his life, but he sank two days later. The *post-mortem* examination revealed pulmonary phthisis of a fibroid type in the left lung, tubercular ulceration of the posterior wall of the larynx and of the trachea, with symmetrical pea-sized tumours situated over both processus vocales; atheroma and dilatation of the aorta; granular contracted kidneys; fatty liver; tubercular ulceration of the colon. A microscopical examination of the tumours showed that they were an outgrowth from the lateral aspect of the inter-arytenoid fold, and consisted of collections of sub-epithelial miliary tubercules, and of a cellular infiltration of the mucosa and submucosa. Tubercle bacilli were found in abundance in the miliary tubercles and in the cell infiltration. In the *Wiener Medicinische Presse*, April, 1883, Schnitzler records a case in which he diagnosed multiple tuberculous tumours of the larynx. The tumours were removed with the guillotine, and proved to consist of aggregations of miliary tubercles. Schnitzler believes that his is the first case in which such tumours have been recognised during life.

The PRESIDENT, commenting upon the difficulties of diagnosis in the case, enquired whether in cases of tubercular disease of the lung, any forms of tumour would be likely to occur in the larynx, other than tubercular.

Dr. PERCY KIDD pointed out that in his case the tumours in the larynx had been present before any evidence of the tubercular disease of the lung could be discovered.

Dr. WHIPHAM referred to a case under his own care, in which there had been enlargement of the left ventricular band and left arytænoid cartilage. No signs of disease in the lungs except slight emphysema. Some improvement followed the use of iodide of potassium, but phthisis subsequently became developed, and death took place from tubercular disease, no signs of syphilis being discovered *post-mortem*.

Dr. DE HAVILLAND HALL thought that it was always important to remember the possible conjunction of tubercular and syphilitic disease in a single case. Dr. Kidd's case was valuable if only from its extreme rarity. It seemed most remarkable that tubercular infiltration should go on without ulceration for nine months in so exposed a part as the processus vocalis.

The PRESIDENT called attention to the possibility of fibroid growth within these tumours, which might have served to check disintegration.

Dr. PERCY KIDD, in reply, expressed regret that no further information had been elicited as to the comparative rarity or otherwise of tubercular tumours of the larynx. Microscopic examination had shown that the tumours were not fibromatous, and the fact of their non-ulceration was difficult to explain. He had seen two cases of somewhat similar kind lately, in one of which ulceration had taken place.

Cases of Excision of the Rectum for Cancer.

Mr. HARRISON CRIPPS read the notes of three cases of cancer of the rectum, in which he had excised the lower part of the bowel, the operations having been performed respectively seventeen months, eighteen months, and four years ago. In the first case, that of a man, aged 68, the symptoms had existed for two years. The disease consisted of a hard, irregular mass on the posterior and right wall of the rectum, about two-thirds of the circumference of the bowel involved, the disease not extending more than two and three-quarters of an inch from the anus. The lower three inches of the bowel were removed, with the exception of about one-fourth of its circumference on the anterior wall. The patient was much troubled during his convalescence from symptoms arising from enlarged prostate, but was discharged in a satisfactory condition, so far as the bowel was concerned. At the end of a twelvemonth his medical attendant wrote that he was alive and comparatively comfortable, no return of the disease could be detected, but he was unable completely to retain his fæces. Mr. Cripps had examined this patient since sending in the paper, and found that he was suffering considerably from prostatic troubles. There was some hardness in this neighbourhood, but no certain symptoms of recurrence. The second case was that of a lady, aged 60. The disease extended all round the bowel on the anterior wall, nearly as high as four inches. Mr. Cripps did not regard the case, from its extent, as a very favourable one for operation, but at the wish of the patient undertook its removal. The bowel had to be dissected for two inches from the peritonæum. The patient made a very satisfactory recovery; she suffered much from contraction, but there was no recurrence for more than a year. The disease then recommenced. The last case was that of a lady, aged 40, who was recommended to the author by Dr. Matthews Duncan. The disease consisted of a hard ulcerated mass, involving one-half the circumference of the bowel to a height of two inches, and filling the ischio-rectal fossa. The disease was removed in July, 1880, and proved, under the microscope, to be a typical example of adenoid cancer. The patient has been frequently examined since. She has completely regained her old strength and health, has no pain or discomfort whatever, and remains, after nearly four years, perfectly free from any symptom of recurrence. Mr. Cripps remarked that he was much indebted to Mr. Butlin for his assistance in the operations performed.

Mr. MORRANT BAKER gave details of three cases of excision of rectum under his care in St. Bartholomew's Hospital. Of these, one died from the after-results of an unavoidable wound of the peritonæum, and two others recovered, but the disease had recurred in one of them after several months' comparative freedom from discomfort. He fully agreed with Mr. Cripps as to the value of the operation, whether for relief or cure.

Mr. WALSHAM referred to three cases upon which he had operated. Of these, one had lived for three months before recurrence, another died in three days, and in the third case only partial removal of the diseased tissue had been possible, but marked relief followed the operation, and the patient had been able to return to work; the disease, however, had lately begun to increase once more. He considered that in all cases of cancer of the rectum, an examination under chloroform should be made before any opinion as to treatment was given. He would prefer to use the scissors rather than the ecraseur in removing the rectum, partly because of the greater ease with which hæmorrhage could be controlled, and partly to avoid the bruising of adjacent tissues which the ecraseur involves. Looking at the success obtained in his own case of partial removal, he threw out the suggestion that removal of a part should be attempted, even in cases where it was not possible to extirpate the whole of the diseased tissue.

Mr. DENT, whilst agreeing in the propriety of the operation in ordinary cases, called especial attention to the condition of incontinence which sometimes followed it, and to the intractable stricture of the anus that occasionally occurred. He believed thal too early interference with a contracting anus, by bougies, was frequently the cause of subsequent incontinence. He thought that some means might be devised to remedy both evils, and appealed to Mr. Cripps for suggestions upon these points.

Mr. BARKER had removed the lower part of the rectum in an old man. The case did very well, no attempt being made to dilate the stricture of the anus which followed. Incontinence of fæces was only observed when the motions were loose. In this case, however, a small portion of mucous membrane remained intact anteriorly, the bowel had contracted from behind forwards, and a kind of valve had been formed, which permitted the passage of the descending fæces, whilst it prevented the entrance of the ascending finger. Such a case would not have been benefited by bougies.

Mr. GODLEE mentioned a case, in which he had removed a portion of the rectum for cancer, using Paquelin's cautery. Contraction followed, with incontinence, and both conditions had been somewhat improved by dilatation. He was inclined to agree with Mr. Walsham, that partial removal might give relief, and he referred to a case where periodic scraping of an epitheliomatous tumour in the rectum had served to keep the disease in check.

The PRESIDENT thought that the discussion had shown that whilst excision of the rectum served to give relief for a time, it did not tend to prolong life. He mentioned one case in which he had diagnosed cancer six years before the patient's death. He considered that the limit of eighteen months, so frequently laid down in books, was not in accordance with general experience, and asked Mr. Cripps' opinion upon this point.

Mr. CRIPPS, in reply, stated that he had never seen any case which had lasted so long as six years. In his own experience, one year, or at most eighteen months, was the ordinary limit of life in rectal cancer. That in some cases the operation had served to prolong life far beyond this limit, there was abundant evidence. In one of his own cases, operated on in the Great Northern Hospital eight years ago, no recurrence of the disease had as yet taken place. He agreed with Mr. Walsham as to the use of the scissors in preference to the ecraseur. He would hesitate to operate in any case in which he was unable to pass his finger beyond the upper margin of the diseased tissue. Freedom from adhesions to surrounding tissues was essential in order to ensure complete removal. He thought that incontinence was in reality less troublesome than is usually supposed. Contraction, however, was more serious, and he would endeavour to prevent its occurrence by allowing the wound to heal over a bougie. As a remedy, he would suggest either colotomy, or extremely free posterior division of the strictured tissue.

A remarkable Case of Tubercular Meningitis.

Dr. ANGEL MONEY communicated the following case:—The patient was a female infant, aged 9 months, when first seen on December 7th, 1883. It appeared that the child had enjoyed good health till about five months pre-

viously, when it had the measles, but apparently recovered completely in a short space of time. On November 27th the child had a fit, shortly after which the left arm and leg were found to be completely paralysed. The intelligence was, so far as could be judged, unaffected. The corporeal state was decidedly one of great fatness. The condition of hemiplegia seemed to be slowly passing away, until December 27th, when a series of fits set in, unconsciousness supervened, and the patient died on January 2nd. On January 1st there was hurried and somewhat Cheyne-Stokes breathing; the pulse was regular, 96, but no fever. The temperature on the morning before death, however, was taken in the rectum and found to be 107°. At the autopsy the brain was soft and pale, with considerable excess of pale clear fluid in the lateral and fourth ventricles, but without glueing of the cerebellum to the posterior boundaries of the last-named ventricle. There were signs of not recent meningitis, chiefly at the base, and a large branch of the right middle cerebral was found to be thrombosed. The other organs showed signs of tuberculosis. A minute vegetation existed on the smaller flap of the mitral valve. In his remarks on the case, Dr. Angel Money pointed out the difficulties of diagnosis. He said that in children the symptoms and signs of disease were singularly wanting, especially when we had to do the brain. A mass of disorganisation in a child would produce much fewer signs than an equal amount of damage in adult, and this was still more the case the younger the child.

Dr. O'Connor enquired as to the stage of dentition in the case, and mentioned an instance of temporary hemiplegia, referable to delayed dentition.

Dr. Glover related a case in which marked hemiplegia had entirely disappeared within a few minutes of its occurrence, similarly short hemiplegic attacks following one another at intervals for a few days. Vertigo and, latterly, headache and disordered vision had been the only sequelæ as yet. There was no evidence of renal disease.

Dr. Tonge Smith mentioned a case in which sudden hemiplegia had occurred and passed off within a few days, the patient subsequently dying from tubercular meningitis.

Dr. Heron gave some interesting details of a case of evanescent facial paralysis in a gentleman engaged in active business, who died on the following day from cerebral hæmorrhage.

Dr. Money, in reply, explained that in his case the paralysis had not been evanescent, but had simply been less marked. The child had two lower incisor teeth.

The following living specimens were exhibited :—Vascular tumour of neck, by Mr. Bellamy; recurrent naso-pharyngeal growth, by Dr. Stonham; and a case of congenital hypertrophy of one limb in an infant.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 22nd, 1884.

Dr. George Johnson, F.R.S., President, in the Chair.

An Enquiry into the Cause of the Increase of Cancer in England and Wales.

By F. B. Jessett, F.R.C.S., Surgeon to the Royal General Dispensary.

The author regarded the increased death-rate from cancer, to which attention has been drawn by the Registrar-General in his last annual report, as signifying a positive increase in the prevalence of cancer, rather than as being open to explanation on the ground of greater accuracy of diagnosis, as suggested in the report. On examination of the statistics, for ten years the increase is found to be from 9·945 deaths registered in 1872 to 13·542 deaths in 1881, or, taking the death-rate, from 431 per 1,000,000 in 1872 to 520 in 1881. On analysis of the Registrar's returns for the different counties, the death-rate from cancer in the Fen districts was seen to be much higher than elsewhere, with the exception of London, Devon, Somerset, Gloucester, and North Wales; which places the author would exclude from account on special grounds. Cancer was more rife in low-lying, damp situations; but heredity, increased by intermarriage, had probably much to say to its prevalence in the "cancer district," the Fen counties above alluded to. The increasing mental strain in the struggle for existence might tend to account for the increased development of cancer among persons predisposed, and these points would have to be borne in mind in advising those predisposed to the disease.

Dr. Snow thought the statistics quoted were somewhat vitiated by the fact that all forms of cancer had been grouped together; while it was well known that the epithelial variety was due entirely to local influences, differing in this respect widely from scirrhus and sarcoma. He himself had advocated a neurotic origin, and, in doing so, had only followed Sir James Paget's teaching. As a careful enquirer into this mode of causation, he had come to the conclusion that it really existed, and was well worthy the attention of the medical profession. Among the poor, who were subject to great mental worry throughout life, it was somewhat difficult to get reliable statistics; but such liability to error did not exist in statistics drawn from observations made in good society, and when a tumour developed immediately after some family catastrophy he thought it only natural to set it down as the result of the nervous shock. In families in which there was already a predisposition to cancer, the various members lived in constant dread of an outbreak of the disease in themselves.

Mr. Harrison Cripps remarked that he listened with great interest to Mr. Jessett's paper, for he had previously made investigations in the same direction, the results of which had been published partly in the Jacksonian Prize Essay and partly in the St. Bartholomew's Hospital Reports for 1878. He had taken the twenty-five years from 1851 to 1876, and had found, according to the Registrar-General's returns, that the death-rate from cancer had steadily increased during that period, so that in the latter year it was more than 30 per cent. higher than the former. However, on further investigation he came to the conclusion that these statistics were misguiding, at least to some extent, partly owing to the system of registration being frequently changed, as to what was included under the term cancer, and partly to an improved diagnosis. Mr. Cripps stated that even the increased prevalence of cancer in certain districts required to be very carefully considered in detail. For instance, the general cancer mortality of London appeared high, but here it was found that the deaths from cancer were nearly double in some parishes to what they were in others. As regards Mr. Jessett's remarks as to the increased frequency of cancer mortality in wet years, a moment's consideration would show that this could have nothing to do with the cause of the disease; for, from cancer being a chronic disorder, it would be extremely improbable that a patient would both catch the disease and die of it the same year. Nor could he agree with the author of the paper, that increased worry and strain, owing to educational pressure, had anything to do with the development of cancer; for the great majority of cases were in-patients over 40 years of age, and who had, therefore, escaped any influence of the Educational Acts. If it could be shown that any particular class, such as the professional or business classes, suffered from cancer in excess of the general population, it might afford some evidence to support Mr. Jessett's views, but at present there was no evidence of the kind forthcoming. As to inheritance, Mr. Cripps disbelieved in the whole doctrine. The evidence upon which it was founded might be considered under two headings :—First, That it is a matter of notoriety that cancer runs in certain families. Secondly, Evidence founded upon certain statistical facts. As regards the first kind of evidence it was wholly inadmissible from

a scientific point of view without the positive facts upon which it was based. Of course from time to time isolated instances would occur of more than an average amount of cancer in a particular family. As to statistics, the most reliable were those published by Mr. Baker, of cases occurring in the practice of Sir James Paget. According to these tables, the whole number of cases of cancer in which the family history was investigated must have been 460. Aunts, uncles, cousins, in fact all relations except the immediate parents were excluded, for the impossibility of knowing the number of these distant relations rendered them useless in forming a table of comparison between a cancerous and a non-cancerous family. So, also, as regards the grand-parents for individuals especially of the hospital class one could seldom accurately assign the cause of death in their grand-parents. The cause of death in the parents was commonly known, therefore the relative frequency with which malignant disease was found in the direct offspring of cancerous parents admitted of comparison with the offspring of the non-cancerous. In Sir James Paget's tables the proportion of the parent of cancerous patients affected with the same disease was 1 in 25. Mr. Cripps having carefully worked out tables from the cases admitted into St. Bartholomew's during the last ten years, arrived at figures closely tallying with Sir James Paget's; finding that of the parents of the cancerous patients in the hospital 1 in 28 had been similarly affected. These statistics merely proved that 1 in 26·5 of the parents of the cancerous were affected. What was necessary, was to compare this proportion with the death-rate amongst the parents of the non-cancerous or general population. It would not be right in this calculation, simply to take the whole number of deaths in the community, and find out how many of the deaths were due to cancer, for the parents of cancerous patients would certainly have been adults at the time of their deaths. The proportion of persons who both became parents and died below the age of twenty was so small a percentage, that it could fairly be ignored. In the ten years, 1861 to 1870, 2,379,622 deaths occurred in England and Wales above the age of twenty years, 81,699 of these were from cancer, or 1 in 29. Thus, then, amongst the parents of cancerous patients the death-rate amounted, according to Sir James Paget, 1 in 25; according to St. Bartholomew's Register, 1 in 28; amongst the whole community above twenty years of age, 1 in 29. The relative frequency of cancer in these two sets of cases differed so slightly that it might well be regarded as accidental, in which case the figures showed that cancer in the parent did not increase the liability of the offspring to suffer from the same disease.

Epiphysitis.

Mr. Macnamara read a paper entitled "Epiphysitis," under which term he included *diffuse ostitis of children, osteo-myelitis during period of growth, suppurative periostitis, and acute necrosis.* This disease, fully described by M. Gosselin in the *Archives Générales de Médecin* for 1858, hardly recognised by English authorities, seemed to exist independently of acute osteo-myelitis. In this paper epiphysitis of the tibia was alone referred to, and the author brought forward five cases of the disease in that bone, illustrating the various phases of the disease, and showing that it might run its course (*a*) without affecting either the ankle or knee-joint; (*b*) that it might give rise—1. To necrosis of the entire diaphysis; 2. To abscess of the bone; 3. To diffuse sclerosis and enlargement of the tibia. The disease consisted in inflammation commencing at the line of junction of the diaphysis and epiphyseal cartilage. From this line the inflammatory action extended along the soft structures contained in the cancellated tissue and Haversian system of the diaphysis, involving the contents of the medullary canal and the deep layers of the periosteum. In many cases the inflammatory action quickly led to suppuration or to necrosis of the diaphysis; the diaphysis of the bone might thus be entirely destroyed without the epiphysis and neighbouring joints being affected. If arthritis occured it was a secondary affection. Epiphysitis did not always lead to necrosis of the diaphysis. Early treatment often saved the bone, and the active changes in the bone might subside. If abscesses formed in the cancellated tissue of the bone, the surrounding osseous tissue underwent a condensing ostitis. In other cases the inflamed diaphysis became simply sclerosed with increased periosteal growth. *Symptoms.*—Two of the five cases brought forward were at first mistaken for articular rheumatism. The disease commenced with great pain and swelling in the proximity of a joint and general pyrexia. The limb became much swollen and of a brawny hardness, abscesses formed, and in many cases the necrosed diaphysis could be felt. Symptoms of scpticæmia often followed. In other cases the disease subsided, and ultimately signs of local abscess or of diffuse sclerosis manifested themselves. *Treatment.*—In the early stages of the disease, free incision down to the extremity of the affected diaphysis, and drainage of the part. In severe cases, trephining the bone at one or more places. When the greater part of the diaphysis was necrosed it must be removed, dissecting the periosteum from it. A new tibia often formed. If the tibia did not re-form, the fibula increased in size, and with proper appliances formed a very serviceable limb.

Mr. Holmes, while expressing great interest in the cases related, dissented entirely from the conclusions arrived at. Why was the term epiphysitis suggested for a disease in which the epiphysis appeared to be quite unaffected? The diseases which had been described in the paper were not by any means confined to childhood. Besides Gosselin, Chassaignac had also very accurately described these changes under the term acute periosteal abscess, a description which he (Mr. Holmes) many years ago had amplified and published, and which was one of the first adequate descriptions given in the English language. It was a better name—even if not the best—than epiphysitis, for an affection which often involved all the bone, except the epiphysis. Mr. Thomas Smith had carefully described the affection of the epiphyses, under the term acute arthritis of infants, and it was quite different from Mr. Macnamara's. The cases described to-night were well recognised by English surgeons; in a majority they were cases of acute periostitis; and in a minority, cases of osteo-myelitis. The disease commonly commenced at some distance from the epiphysis, in the subperiosteal tissue. Mr. Macnamara had further mixed up cases of chronic abscess of bone, first described by Brodie; this often resulted from a contusion or other local injury, and had nothing whatever to do with the epiphysis. He doubted whether it was good practice in the acute cases to trephine at first; he preferred to cut down through the periosteum, thus relieving tension and giving exit to exudations. Cases of osteo-myelitis were not infrequently secondary to the sub-periosteal disease, and he related a case in point; in such cases trephining was not called for, if suitable previous treatment was adopted.

Mr. Barwell said he agreed with Mr. Holmes that a mistake had been made in calling the cases epiphysitis; had there been epiphysitis, the sequel would have been quite different. As to the practice of trephining, raised by Mr. Holmes, he thought it useful in a certain number of cases, in those in fact in which the disease commenced in the medullary cavity, he had found much benefit result afterwards, for it let out the oil and pus contained within the cavity. In other cases the disease began in the periosteum, and trephining was less useful. He thought Mr. Macnamara had hardly done justice to the work of English surgeons on this subject; he had himself, as far back as 1862, given a tolerably accurate description of epiphysitis, apart from disease in the shaft, as well as of disease of the shaft, and he had shown at the sister societies specimens of the diaphysis of long bones which he had removed on account of disease.

Mr. Thomas Smith said that Mr. Holmes had so fully

expressed views with which he entirely concurred, that it would only be necessary for him now to say very little. He was grieved to find that Mr. Macnamara under such a term had swept together so many diseases which were distinct. And, as regarded descriptions of the disease, besides his own on acute arthritis in infants, Mr. Holmes and Mr. Morrant Baker in this country had both contributed important papers on its different phases. He enquired whether in the cases related by Mr. Macnamara there were any secondary affections of other joints or of the pericardium; frequently he had had to decide on treatment in cases in which the constitutional symptoms were very severe. He remarked that all denuded bone did not necessarily die, if time were given, and besides the objection that the bone was not always reproduced, there was the further disadvantage that the skin of the shin became adherent to the resulting cicatrix even when it was reproduced, and this cicatrix was very apt to ulcerate.

Mr. GANT especially desired to call attention to the want of correlation between the pathology, symptoms and treatment in the cases brought forward. Otherwise the facts were interesting, though not new.

Mr. MACNAMARA replied he would forego the term epiphysitis, as the Fellows seemed to think it objectionable or inadequate; but he supported his previous contention, that the disease in his cases had commenced at the line of junction between the shaft and epiphysis, and had thence spread and finally involved the shaft.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 2ND, 1884.

H. GERVIS, M.D., F.R.C.P., President, in the Chair.

DR. F. NEUGEBAUER, jun., showed specimens and photographs illustrating the production of spondylolisthesis, and presented books on the subject. His remarks have already appeared in the *Annales de Gynécologie*, February, 1884.

Remarks were made by the PRESIDENT, Dr. BARNES, and Mr. W. ADAM. The specimens were referred to a subcommittee.

The PRESIDENT proposed that letters of condolence be sent from the Society to Her Majesty the Queen and H.R.H. the Duchess of Albany on the sad occasion of the death of H.R.H. the Duke of Albany. This was unanimously agreed to, and the President undertook to write the letters.

Dr. CARTER showed two dermoid cysts removed after the death of a single woman, aged 50; one of the cysts being also cancerous.

Mr. THORNTON made remarks.

THE RELATION OF PROLAPSE OF THE VAGINA TO HERNIA.

Mr. DORAN read a paper on the "Relations of Prolapse of the Vagina to Hernia," illustrated by two pedigrees. The paper described cases of women affected with prolapse of the anterior wall of the vagina, where a very marked family history of hernia existed. The genealogies of the patients were given in a tabular form. The cases all tend to prove the close relation between hernia of the intestine and displacements of the female pelvic viscera.

Dr. MATTHEWS DUNCAN had long taught that intestinal hernia and procidentia uteri were alternative conditions. The whole of Mr. Doran's excellent paper was a part of the great subject of the retentive power of the abdomen or its pressure relations.

Dr. CHAMPNEYS said that in the work of Landen, on movable kidney, various associated conditions were mentioned; hernia was found in 7 per cent., descent of the uterus or vagina in 13 per cent., "retroflexion" in 15 per cent., and pendulous belly in 25 per cent. No explanation was given of the term "retroflexion," but it probably meant the condition known as "retroflexion" with descent (or rather descent with retroflexion). It was his habit to enquire of patients suffering from descent of the pelvic organs, as to family histories of hernia, prolapsus uteri and prolapsus ani. One such history was the following:—A woman, aged 52, had had procidentia since the age of 27, her eldest daughter (aged 30) has had procidentia since the age of 21; all her three sons had prolapsus ani as children.

Dr. HORROCKS said allowance must be made for the fact, that in the same family it often happened that circumstances obliged all the members to do hard work.

Mr. DORAN, in reply, said that the history of rupture was often difficult to obtain, as the condition was naturally concealed, especially between the different sexes, and also between those of very different ages. In some cases the bladder was not displaced in descent of the vagina and uterus. He had recently seen a case of apparent cystocele, in which no part of the bladder was prolapsed. The distinction between prolapse of the generative organs, with and without cystocele, was an interesting question to solve in relation to hernia.

THE USE OF THE INDUCED CURRENT DURING PARTURITION.

Dr. KILNER read a paper on the "Use of the Induced Current during Parturition." The effects of the current were the relief of pain, prevention of fatigue and *post-partum* hæmorrhage, equalisation of the pulse, increase in frequency and strength of the uterine contractions, and the prevention of vomiting. The pain from stretching of the vulva was, however, not alleviated by it, nor did it to any extent relieve pain in cases of instrumental labour. The author now employed the coil (shown) in nearly all cases. In about three hundred cases, *post-partum* hæmorrhage only occurred twice. The coil sometimes failed to increase uterine contractions when most needed. After its use for an hour or an hour and a half, it exercised its sedative action, and no longer increased the contractions. In some cases it produced violent and almost continuous contractions. In one case a contraction lasted fifteen minutes. No prognosis with regard to these points could be made. It had no effect in diminishing afterpains. It generally prevented or stopped vomiting. Statistics were given and directions for use.

The PRESIDENT said that an agent which increased uterine action while lessening pain was almost too good to be true, but labouring women would be grateful for such a method.

Dr. PLAYFAIR had tried the current, and it had proved a failure, perhaps from want of special skill; but if special skill were needed it could not be generally used. Its effects in diminishing pain were slight, and not to be compared with other means at our disposal. A battery was a cumbrous thing to carry about, and was likely to alarm patients; as an oxytocic he had found it useless. Dr. Kilner compared its action with that of ergot, which should never be used to accelerate delivery. Uterine manual pressure was the best and safest oxytocic.

Dr. WALTER had used the current for more than seven years for inertia of the uterus after the expulsion of the placenta, and found it in some cases superior to ordinary means. He had found it useful in *post-partum* hæmorrhage.

Dr. HORROCKS asked for details as to live birth, suspended animation, hæmorrhage, and whether premature labour had been reduced. In this respect electricity had always hitherto failed.

Dr. ROUTH had found the electrical current useful in migraine; in lumbago a man would walk into his study, walking like an old person, and would leave as erect as a soldier. He had also dispersed uterine fibroids by its frequent use, and tumours of the breast.

Dr. MURRAY thought that if the electric current had such power as had been described, the possibility of rupture of the uterus would have to be remembered. He had used it for hæmorrhage, but considered its value very doubtful.

Dr. KILNER replied that, as regards the lessening of pain, the current was more under control than an anæsthetic, and never caused sickness. He had never seen a case of rupture of the uterus.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, APRIL 18TH, 1884.

Dr. DUDFIELD, President, in the Chair.

Outbreak of Small-pox in East and North London.

A PAPER on this subject was contributed by Dr. TRIPE, medical officer of health for Hackney. The prevalence of small-pox during the latter half of 1883, especially in the vicinity of the Homerton Hospital, Dr. Tripe attributed to the contact of the workmen engaged in altering the drains of the building, with the convalescents, although he was not aware of any cases having occurred among the men themselves. But the present epidemic commenced with the appearance of fifteen cases on February 22nd, of which eleven were removed to the hospital. These cases occurred in nine houses, five of them in one house in which there had been one a fortnight previously. Other cases appeared in March in Upton House reformatory for boys, and the Female Refuge in Dalston Lane, the sources of which could not be traced, though the dates March 2nd and 15th were suggestive of consecutive infections. Dr. Tripe exhibited a map showing, by coloured spots, the succession and distribution of all cases which came to his knowledge, from which it appeared that there were within the ¼ mile, ½ mile, 1 mile radii, and beyond this respectively on the first day of the actual epidemic 4, 1, 2, and 2 houses attacked; on the second day, 1, 5, 2, and 3; on the third and fourth days, 4, 5, 7, and 5; on the fifth and sixth, 8, 4, 3, and 4, making in all 20, 15, 16, and 14 in the several areas, the populations of which may be roughly estimated at 10,000, 30,000, 60,000, and 100,000 respectively, which gives an average of 2, 0·5, 0·24, and 0·0014 per 1000 population in each. Outside the mile these numbers are, however, not even approximate, as excepting in the immediate vicinity of the hospital, Dr. Tripe had no information of cases other than those removed to the hospitals of the Asylums Board, or through applications for disinfectants, &c. The admissions from the several parishes in the weeks ending March 6th, 13th, 20th, and 27th, were from Hackney, 10, 5, 2, and 72; Islington, 6, 1, 4, and 14; Bethnal Green, 3, 1, 2, 15; and Shoreditch, 1, 5, 7, 9. Besides these Hackney alone has sent 20 cases in the week ending April 3rd. It appeared from the reports of the Asylums Board that during March 191 cases were removed to one or other of their hospitals, of these 89 were from Hackney, and 79 from the other three parishes above named, 33 being from Islington, and 23 each from Bethnal Green and Shoreditch, leaving 13 only for the rest of London. The population of the three parishes was about three times that of Hackney, which, therefore, had suffered three and a half times as heavily as they, the greatest incidence falling on the district immediately surrounding the hospital, although it contained a smaller number of patients than usual when the outbreak took place, and only half what it had a month before. Neither the direction of the prevalent winds, nor the route taken by the ambulances, nor the removal of convalescents to the Atlas, could be made to explain this, for the patients were transferred on February 5th, and no case was taken in between February 15th and the date in question. Still less did a comparison of the meteorological phenomena of this period with those of former epidemics throw any light on its causation. Lastly, in many cases no direct communication could be proved between the persons successively attacked. But the fact remained that before the opening of the hospital the distribution of the disease was very different from what it had been since, and the population of the district where it now stood, though much the same as at present, showed no special liability to small-pox. The hospital, which Dr. Tripe had always maintained was not arranged or conducted with sufficient care, was certainly connected with the local incidence of the disease, but for its further distribution in that and other parishes of the East End of London, it seemed we must fall back on aërial transmission, or some agencies still undiscovered.

Dr. DUDFIELD observed that the Kensington epidemic, enquired into by Mr. Power on behalf of the Local Government Board, though in like manner traceable to the proximity of the Fulham Hospital, did not follow the course of the prevailing winds.

Mr. WYNTER BLYTH remarked that streets often produced eddies in very different directions from that of the actual wind.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, APRIL 17TH, 1884.

DISCUSSION ON PNEUMONIA.

(*Adjourned from March 27th.*)

THIS discussion followed on a paper by Dr. Caton, entitled "Notes of eighty-four Cases of Acute Pneumonia and Pleuro-Pneumonia, with some Remarks on Septic Pneumonia." After some general introductory remarks on the pathology of the disease, historical evidence was brought forward of the probable existence of an epidemic form of pneumonia. Fatal epidemics of that disease, occurring especially in Iceland, were referred to. In Liverpool, in 1879 and 1881, many cases of a very fatal form of pleuro-pneumonia came under Dr. Caton's care in the Northern Hospital. An examination of the reports of the Medical Officer of Health showed that in those years all the Liverpool hospitals showed a large mortality from pneumonia or pleuro-pneumonia, thus adding additional support to the occasional epidemic nature of this disease in other countries. The pneumonia micrococcus was next described and drawings of it exhibited, followed by a *resumé* of our present knowledge on the subject derived from cultivation experiments. In this respect the pneumonia micrococcus stood in very nearly the same position as the phthisis germ. From February, 1877, to February, 1884, Dr. Caton had under his care at the Northern Hospital 84 cases of pneumonia or pleuro-pneumonia, of whom 29 died, a mortality that surprised him when he first reckoned up his cases. It was explained by the fatal nature of the epidemic variety already referred to, by the habits and occupations of the patients by delay in putting themselves under treatment, and in many cases by complications that rendered recovery almost impossible. Treatment consisted in surrounding the patients with a proper temperature, in the careful application of jacket poultices, and in the administration of carbonate of ammonia and other stimulants, according to the exigencies of the case. He rarely employed antimony or depletion of any kind. Quinine, aconite, bleeding, leeching, croton, and iodine liniments were occasionally employed.

Dr. J. CAMERON expressed his satisfaction at hearing the paper, and at the treatment of its subject. He did not think that sufficient evidence had been brought forward to connect pneumonia with micro-organisms, as effect ought to be connected with cause; nor could he remember a single instance where the disease could be traced to infection. The apparent epidemic variety could be explained by accompanying diseases that left pneumonia in their train. In 1847, influenza followed by pneumonia was prevalent. In Iceland, epidemics of influenza were frequent. The influence of seasons in producing pneumonia must not be ignored, and the mortality depended to a great extent on the age of the patient, his state of constitution, habits, and the time he came under treatment. Immersion during drink was the cause of a very fatal kind of pneumonia. These cases came into hospital very early, and the onset of the disease could be recognised by a feebleness of respiration that preceded the earliest stage of the disease mentioned in books. As to treatment, there was not a *single remedy* for the disease: we could not cure, we could only help. He would not begin with carbonate of pneumonia and brandy; tartar emetic was useful in the early stages. He remembered when frequent bleedings were the rule, and, wonderful to relate, many patients then recovered. Bleeding sometimes did good, but the same physical influence might be obtained by other means.

Dr. WILLIAMS sympathised with Dr. Caton in regard to his large mortality. Since 1878 he had treated 72 cases in the Royal Southern Hospital, with a mortality of 29. His periods of greatest mortality did not coincide with those of

Dr. Caton, and in consequence, did not support the theory of the epidemic nature of the disease. Ten of his cases died in less than three days after admission, one had gangrene of lungs, one had Bright's disease. Four were over 60 years of age, five over 50, and nine over 40 years of age. His treatment consisted in placing the patient in an equable temperature, and in administering ammonia. Antimony was rarely used, and brandy and eggs were given as the pulse became soft.

Dr. Bostock brought forward a case where a healthy child caught pneumonia from the effect of bad hygienic conditions. It lived in a small house surrounded by a cesspool that opened into a sink inside the house. Five other children were successively attacked by the same disease, their illnesses beginning with rigors. He would like an explanation of the theory that there were two kinds of pneumonia, one produced by contagion as the cases just narrated by him, and another produced by cold as after immersion, and where no bacteria were supposed to be present.

Dr. Wm. Carter said pneumonia in hospitals was very fatal, especially in seaport towns. In private practice it could not be called a fatal disease. To occupation, habits, and antecedent ill-health, were to be ascribed the greater hospital mortality over that of practice. Since 1876 he had attended ninety-nine cases of pneumonia in the Royal Southern Hospital. Forty-seven were sailors, the others labourers, &c.; twenty-three died only two hours after admission, one from meningitis, two had secondary pneumonia after typhoid fever, some had Bright's disease, and one had a tumour of the brain. As indications of danger he mentioned especially a fall in temperature and a rise in pulse, and late delirium which was best treated by quinine. He recognised a septic pneumonia set up by wounds, but ordinary pneumonia was not, he thought, an infective disease, or it did not appear to him to be communicable, it often affected only a small portion of the lung, occurred twice, and set in suddenly. As to 1879, he read an extract from a meteorological report of that year, showing the exceptionally low temperature that then prevailed, whilst fogs and rain alternated with 119 days of snow.

Dr. Archer said that of five cases marked temperate in Dr. Caton's tables, only one died; of eight marked intemperate, five died. Climate had more to do with pneumonia than micrococci. In regard to the latter, he thought the profession were going mad. He noticed pericarditis in two cases of left-sided pleuro-pneumonia in Dr. Caton's table, and that quite agreed with his own experience, that pericarditis most frequently followed left pleuro-pneumonia.

Dr. Robertson was astonished at the enormous number of fatal cases of pneumonia reported annually from the workhouse hospital, all of which were under his supervision. It was difficult in a large workhouse hospital to keep such complete records of disease as were kept in the Northern Hospital. He had, however, analysed the cases reported for 1881. Many of them were cases of broncho-pneumonia or typhus, others were cases of pneumonia after whooping-cough, whilst a considerable number belonged to the category of congestion of the lungs in old people. He could not remember any cases of infection in pneumonia, and had not much faith in organisms which were, he thought, often the results of decomposition. His treatment was similar to that of Dr. Caton. Limited bloodletting in selected cases, when there was a full and bounding pulse, with insomnia often acted like a charm. One case of double pneumonia—dying from collapse, pulseless, and livid in the face—was bled to fourteen ounces. In half-an-hour he fell asleep, and made an excellent recovery. An old woman in the infirm wards, caught pneumonia from a sudden chill. She was bled to fourteen ounces, and made a good recovery. He was led to practise blood-letting from watching the effects of the catamenial flow, and of hæmorrhage from the bowels and fever.

Dr. Bare did not look upon pneumonia as a specific disease. In many cases it was produced simply by a chill. He agreed with Dr. Robertson as to the efficacy of bloodletting; but, as a general rule, it should be performed before the third day. Antimony and citrate of potash were much used by him in the early stage, and were very useful. When the pulse became dicrotic, quinine was the best remedy, and sometimes he gave 40 grains per diem. Carbonate ammonia was useful in the later stages, as were atropia and digitalis. That each patient should have two thousand cubic feet of space was a most important item in the treatment of pneumonia.

Mr. R. Hamilton desired to bring back the discussion from the subject of treatment to that of ætiology. He believed pneumonia had a septic origin, and the cases where immersion produced pneumonia, he would explain by the chill of immersion bringing about a degree of temperature and moisture suitable for the reproduction of pneumonia germs.

Dr. A. Davidson said the question was whether pneumonia was the result of irritation or infection. Bronchitis was a disease produced by irritation, lasting a variable time. Pneumonia ended suddenly in a crisis, and belonged, he thought, to the *infective*, not to the *infectious* class.

Dr. Worral thought blood-letting might be usefully employed at a later stage when the heart was weak.

Dr. George Taylor reported a case where a patient of his went to live in London, and became ill with pneumonia. A sister went up to nurse him and took the disease, and so did another sister who followed, and they all died. Sometime after another person went to the same house, and he suffered severely from sore throat.

Dr. Caton, in reply, said he was not a decided believer in the contagiousness of phthisis, but he thought the evidence was in favour of its bacterial origin. In cattle there seemed to be two kinds of pleuro-pneumonia, and he did not see why there should not also be two kinds in man. Pericarditis most frequently followed left pleuro-pneumonia, which was to be expected, as the disease spread through the lymphatics. He agreed with Drs. Barr and Robertson as to the effects of early bleeding, with Dr. Barr as to the necessity of cubic space in the treatment of the disease, and with Dr. Hamilton that chilling may put the organism in a good position for growth.

GENERAL CORRESPONDENCE.

THE PSYCHICAL RESEARCH SOCIETY AND "CLAIRVOYANCE."

[To the Editor of the Medical Times.]

Sir,—It appears from Mr. Gurney's letter of April 13th that he and I are at one in the opinion that none of the methods of blindfolding the alleged "clairvoyant" practised by the Psychical Research Committee, were sufficient to occlude vision, although we may have arrived at that opinion by different routes. This being the case, *cadit quæstio*. I nevertheless ask permission to make a few remarks on Mr. Gurney's letter.

I commended no particular *method* of blindfolding as trustworthy, in my letter to you, nor did I make mention of either "pennies" or "plaster" on the eyes. My statement was, that on a given occasion the subject in question was able to name cards when apparently blindfolded by the Committee, but failed *entirely* to do so when his eyes were covered with cotton-wool by a certain medical observer. That assertion is not challenged by Mr. Gurney; and his statement that on other occasions the cotton-wool method failed to occlude vision is clearly beside the question.

It is easy to apparently blindfold any one, with or without plaster, pennies, or even cotton-wool; it is not very difficult to apply a real blindfold by means of cotton-wool, as was done by the gentleman referred to in my previous letter. It is, moreover, well-known among professional conjurers that cotton-wool or some similar substance properly applied is a perfectly, and perhaps the sole, efficacious blindfold. Plaster and pennies may be quite discarded. Notwithstanding, therefore, Mr. Gurney's apparent implication that no one can be really blindfolded at all, I mantain that on the occasion alluded to the test was satisfactory.

Mr. Gurney's own admission of the untrustworthiness

of all the methods of blindfolding mentioned, as tests of absolute occlusion of vision, fully justifies my charge of untrustworthiness against the special methods employed by the Committee, whatever the conclusions arrived at by the Committee may be. The only trustworthy blindfold in alleged "clairvoyance" is obviously one which effectually bars all power of vision. Mr. Gurney acknowledges that the Committee's tests may have failed to do this; and I assert that on a given occasion a blindfold was applied by an outsider which did effectually bar all power of vision, or, what to the un-psychical researcher at least is the same thing,was followed by the subject's failure to name the cards at all. I would remind your readers of another occasion mentioned in your columns, when several scientific observers came to a definite conclusion as to the nature of the experiments they observed at the Society's meetings. Those who bear in mind also the somewhat remarkable facts that the above-mentioned experiments in clairvoyance were carried on with paid subjects and playing cards will probably acquit me of undue rashness in my criticism of the psychical enquiries. Judging, indeed, from the hitherto published manifestoes of this Society in its own "Proceedings," and in lectures and magazine articles, it is not even rash to say that it betrays a belief in a general disorder of Nature, and that its final cause is apparently the affirmation of the inexplicable.

Mr. Gurney remarks in conclusion that my comment on this *séance* makes it difficult to again invite the gentleman who blindfolded the subject. It is difficult here to follow Mr. Gurney's meaning. In any really scientific enquiry such a comment, if it have any influence at all, should obviously encourage rather than prevent the presence of both sceptical and unbelieving outsiders when experiments are being made. The serious pursuit of truth can never be hindered by any criticism, however free.

I am, Sir, yours, &c.,

April 21st, 1884. H. B. DONKIN.

EXAMINATION FEES FOR UNIVERSITY UNDER-GRADUATES UNDER THE MEDICAL BILL.

[To the Editor of the Medical Times.]

SIR,—Your editorial note on this subject proceeds upon a complete misapprehension of the provisions of the Bill. The clause dealing with this point declares that University under-graduates shall pay for their State examination only the cost of the examination, while other students shall pay an additional sum, which is to be appropriated to the maintenance of the museums, libraries, and other educational appliances of the Colleges. The principle of this clause is, that a University student, having paid in money for the use of University museums, &c., and having paid in brain-work for the academic study and discipline of a University, should not be required to pay also for the College museums and libraries which he has not used. This is just and rational, and every College is willing that University students who have done this, should be admitted to the State examination on payment of its cost. But, Sir, the question is, what is a University? And what is an under-graduate? The Universities which are in the public mind, when they consider this subject, are Oxford, Cambridge, and Dublin, where a student resides for four years at his place of study, is instructed by the teachers provided by the University, and with the aid of the educational paraphernalia maintained for the purpose. To such Universities the Colleges at once concede special privileges for their students. But what about the other *soi-disant* Universities, such as the Royal Irish University? It is, in fact, no more a University in the educational sense than is the Intermediate Examination Board, nor are its matriculants University under-graduates. Such institutions are mere examining centres; they have no attached Colleges; they neither educate nor supervise their students: they possess no museums, libraries, or other teaching appliances, and they never see their so-called under-graduates from year's end to year's end. Why should the matriculants of Universities of this class be entitled to any special privileges? Have they earned them by superior culture? Not at all; their matriculation examinations are in no way superior in quality to the preliminary examinations of the Colleges. Have they undergone academic study and discipline? No; for their University requires no residence, and has no place wherein they could reside. Have they paid for University education? Certainly not. They have, many of them, been taught by the Colleges, and by means of those museums, libraries, and schools for which it is now claimed that they should not pay; and they have never entered their University, save to pass an examination, just as a school-girl goes to Cambridge to pass one of the ordinary local examinations. I repeat that an examining centre is not a University, whatever it may call itself; and a student who goes up for one of its examinations is not an under-graduate, and is entitled to no special privilege whatever. He is as well examined in any College, and is educated without any assistance whatever from his "University," and, being so educated, he should pay for the sources of his education. This cheap admission to the final examination is, in fact, neither more nor less than a money bribe to attract the student to these institutions. For example, a student under the new Bill who passes his preliminary examination at the Irish College of Surgeons, and pays ten shillings, is liable to pay the full sum which may be agreed upon for the final examination of non-University men; but if he passes at the Royal Irish University the same preliminary, with one insignificant additional Arts examination, and pays the same ten shillings, he is to be received at his final examination on the same easy-money terms as the student of Dublin University who has resided in Trinity College for four years, passed eight Arts examinations, and obtained a full graduation in Arts. The proposition is monstrous; and I can only account for it by assuming that the framers of the Bill forgot the existence of this class of so-called Universities.

I am, Sir, yours, &c.,

A. H. JACOB, M.D., F.A.C.S.I.

23, *Ely Place, Dublin*,
April 19th, 1884.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT a meeting of the Royal College of Physicians, held on the 24th inst., the business was chiefly formal. Six qualified practitioners who had passed the examinations, conducted by the Censors Board, were admitted to the Membership of the College; and the licence of the College was granted to 44 gentlemen who had passed the required examinations, and 7 others who passed in medicine and midwifery will receive the license when qualified in surgery. The by-law, *pro hâc vice*, permitting the election of Fellows to take place this year, on the last Thursday in May, was agreed to. The Committee on Vice-Presidents reported, that in former times the President had power to appoint a Pro-President, and recommended the President should be empowered by by-law to appoint annually two Fellows from among those who have been Senior Censors, to be Vice-Presidents. This was adopted with the proviso, that no retiring Vice-President shall be re-eligible till after the lapse of five years. The report of the Finance Committee was of a very satisfactory character, and the Committee, in consideration of the greatly increased labours of the Censors Board, recommended that an additional *honorarium* of fifty guineas be granted to each of the present Censors at the expiration of their term of office. The Examiners for the Murchison Scholarship reported that fifteen candidates offered themselves as candidates; one retired, and all the rest showed a high standard of excellence. Mr. J. Bland Sutton, of Middlesex Hospital, was recommended for, and elected to, the Scholarship. Mr. R. Fortescue Fox was mentioned as having closely equalled Mr. Sutton in all his work.

MEDICAL OFFICERS OF SCHOOLS' ASSOCIATION.

According to the proposal made in the journals, the first meeting of the above-named new society was held at Christ's Hospital, London, on April 16th, when many medical men, representing all classes of schools were present. The objects of the Association were declared to be, (1) mutual assistance in promoting school hygiene; (2) meetings for the consideration of all subjects connected with the special work of medical officers of schools; and all present or retired medical officers of schools, of children's hospitals, and medical men specially engaged in the study of the ailments of the young, are eligible as members. It was decided to hold three ordinary meetings in the course of the year, the next in July during the conference on school hygiene, to be held at the International Health Exhibition. The following gentlemen were elected on the Council:—*President*, Surgeon-Major Evatt, Royal Military College, Woolwich. *Vice-President*, Dr. Fuller, Lancing College. *Hon. Secretary*, Dr. Alder Smith, Christ's Hospital. *Treasurer*, Noble Smith, Esq. Members of Council—G. Armstrong, Esq., Wellington College; W. Armstrong, Esq., Royal Hospital School, Greenwich; Dr. Haig Brown, Charterhouse; Dr. Brett, London Orphan Asylum; Dr. Fletcher Beach, Darenth Asylum; Dr. Adams Clarke, Leavesden Schools; Dr. Ingle, The Leys School, Cambridge; Surgeon-Major Lever, Military College, Oxford; Dr. Prangley, N. Surrey District Schools; Dr. Shelly, Haileybury; H. Statham, Esq., The Foundling; T. Pridgin Teale, Esq., Leeds. The secretary will be glad to receive the names of any medical men wishing to become members of this Association.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma were admitted Members of the College, at a meeting of the Court of Examiners on the 21st instant, viz.:—Messrs. J. F. Bateson, M.B. Edinburgh, Wavertree; W. H. Owen, L.K.Q.C.P. Ireland, Liverpool; H. H. Marsden, L.K.Q.C.P. Ireland, Birkenhead, of the Liverpool School of Medicine; H. D. James, L.S.A., Babbicombe, Devon, and H. C. Dent, L.S.A., Woolwich, of King's College Hospital; W. H. Starr, L.S.A., West Kensington Park, and O. P. Brown, L.S.A., Percy Circus, W.C., of St. Bartholomew's Hospital; J. C. Evers, L.S.A., Stourbridge, and T. Birt, L.S.A., Stourbridge, of the Birmingham School; C. G. Satchell, L.S.A., Tunbridge Wells, of University College Hospital; W. F. Miller, M.B. Melbourne, Melbourne, of the Melbourne University; A. Fuller, M.B. Edinburgh, Cape Town, of the Edinburgh School; R. Hardie, M.B. Durham, Newcastle, of the Newcastle School; R. H. Hunter, M.B. Glasgow, Glasgow, of the Glasgow School; S. A. Davies, L.R.C.S. London, Llanelly, of Guy's Hospital; A. G. Andrews, L.R.C.S. London, Coleshill-street, S.W., of St. George's Hospital; and S. Plowman, L.S.A., of St. Thomas's Hospital. Five gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; four candidates were referred for three months, two for six months, and one for nine months. The following gentlemen passed on the 22nd instant, viz.:—Messrs. J. W. McVitre, L.R.C.S. Edinburgh, Liverpool, and J. G. G. Corkhill, L.R.C.S. Edinburgh, Bootle, of the Liverpool School of Medicine; J. H. Harris, L.S.A., Abestyberg, and J. R. Nunn; L.S.A., Burton-on-Trent, of St. Bartholomew's Hospital; H. C. Coe, M.D., Harvard, Detroit, of the Harvard University; A. B. Gemmel, L.R.C.S. Edinburgh, Glasgow, of the Glasgow University; A. Hepworth, M.B. Durham, Newcastle-on-Tyne, of the Newcastle School of Medicine; W. G. Anglin, M.D., Kingston, Ontario, of the Kingston School of Medicine; G. E. Hale, L.R.C.S. Edinburgh, Elgin-road, W., of St. Mary's Hospital; E. A. Fall, L.R.C.S. Edinburgh, Kensington Gardens Square, of University College Hospital; and A. T. J. Lilly, L.R.C.S. London, Woolston, Southampton, of St. George's Hospital. Six gentlemen were approved in Surgery, and when qualified in Medicine will be admitted members of the College; five candidates were referred for three months, and seven for six months. The following gentlemen also passed their examination on the 23rd instant, viz.:—E. G. F. Morris, Bromzard, of the Leeds School of Medicine; L. Jones-Bateman, B. A. Cantab, Birmingham, of the University of Cambridge; W. O. Shaw, Basingstoke; G. L. Barritt, L.R.C.C.L., Todmorden, and J. H. Gough, Manchester, of the Manchester School of Medicine; H. L. Pearson, Rockferry, Liverpool School of Medicine; H. H. Tomkins, Bristol, Bristol School of Medicine; F. W. Gordon, Dublin, Dublin School of Medicine; G. L. Wells, Leeds, and E. C. Pettifer, Stoke Newington Green, St. Bartholomew's Hospital; D. Thomas, Abberffraw, Mon., London Hospital; W. R. Edwards, Caerleon, Newcastle School of Medicine; G. C. E. Anderson, Cape Colony, and W. L. Braddon, Upton-on-Severn, Guy's Hospital; G. W. H. Trench, Hornsey, St. Mary's Hospital. Five candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members, viz.:—J. T. Tupholme, L.R.C.P.Ed., South Kensington, of St. Bartholomew's Hospital; A. de Winton, L.R.C.P.Ed., Gloucester, and G. F. Hugill, L.S.A., Chislehurst, of Guy's Hospital; T. F. Foster, L.S.A., Brampton, King's College Hospital; J. R. L. Dixon, L.R.C.P.Ed., Liverpool, of the Liverpool School of Medicine. Four candidates passed the examination in Surgery, one candidate was referred for three months, and four for six months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 17, 1884:—

Anderson, James Johnstone, Vine Street, Lincoln.
Birt, Thomas, High Street, Stourbridge.
Brown, Osmand Percy, Percy Circus, Pentonville.
Harrison, Joseph, Wilford Street, Bradford.
Hewer, Henry John, 33, Highbury New Park.
Kirkhouse, George, 1, Romilly Road, Finsbury Park.
Musgrave, Frank Ernest, Leopold Street, Leeds.
Scott, Alfred Langston, Thornton Hill, Wimbledon.
Tatam, Edwin Charles, Wetherby, Yorkshire.
Woodson, Adolphus Arthur, Fitzalan Square, Sheffield.

The following gentlemen also, on the same day, passed their Primary Professional Examination:—

Foster, Albert Ernest, Leeds School of Medicine.
Visger, Harman, Bristol School of Medicine.

University of Glasgow.—The following candidates have passed the First Professional Examination (Natural History, Botany, and Chemistry):—Frederick Ashurst, Charles Banks, James A. Brown, James Bruce, Alexander Butler, Saxon S. Dale, Thomas T. Downie, David Elliot, William R. Forrester, William Gemmell, Andrew Gray, Harry Gray, Archibald Gunn, Edward O. Harrison, R. C. Highet, G. F. Hilliard, Robert Hogg, Arthur D. Hughes, George J. Imrie, John A Jackson, Thomas Kirkland, James Marshall, William Marshall, Thomas L. Macfarlane, Robert M'Ghie, George M'Intyre, C. A. Mackechnie, William T. Nicholson, Hugh Rhodes, Henry W. Robinson, William P. Sandilands, Charles E. Scanlan, Henry W. Sinclair, J. W. H. Steil, Robert Stevenson, Edward B. Tant, James A. Ure, and Andrew S. Wotherspoon. The following candidates have passed the Second Professional Examination (Anatomy and Physiology):—William M. Alexander, M.A., John Allan, W. Carrick Allan, Samuel J. Baird, Charles William Bell, H. Duncan Browne, Alexander Bryce, William Butchart, M.A., Archibald T. Campbell, Robert Craik, William C. Crichton, John Currie, George W. Davis, J. L. Downs, William J. Giblin, John R. Gibson, John D. Gordon, Charles Gray, Yousuf Hamiz, Walter Hay, Herbert Hickin, John Hogg, James E. Hunter, William Huntly, M.A., George Marshall, J. G. Marshall, Alfred E. Miller, George Miller, Donald S. MacColl, J. R. R. M'Crindle, Tom Macdonald, John M'Keith, Archibald Maclachlan, William M'Millan, Charles M'Taggart, M.A., Andrew H. Richmond, John Ritchie, John Rowat, Thomas Rutherford, B.A., David Stiell, James Watson, Leonard Williams, James Wilson, M.A., William Yorke, and Robert R. Young. J. W. Shane passed the Second Examination, Old Regulations (Anatomy, Physiology, Zoology.) The following candidates have passed the Third Professional Examination (Regional Anatomy, Materia Medica and Pharmacy, and Pathology):—Archibald S. Alexander, Samuel P. Alexander, William Allan, Alexander M. Bankier, John Broom, Hugh D. Buchanan, John Buchanan, J. Wilson Cameron, William

D. Campbell, Quintin Chalmers, Robert Cook, Charles Court, B. S. Cowen, David K. Cross, William Cullen, Henry E. N. Dobie, John Dodd, James Dunlop, M.A., Robert Eaglesham, Robert M. Fleming, Robert C. Gilroy, John Graham, Ernest W. Haydon. Wm. J Holme, John Hughes, Hugh Kelly, John A. Kerr, William Kirkland, Trafford Mitchell, Wm. C. C. Muir, James I. Macarthur, Thomas C. M'Culloch, John A. Macdonald, Roderick Macdonald, Digby M. Macphail, Alexander M. Macrae, Henry J. Neilson, James Parker, W. Whiteside Paterson, Andrew Richmond, David Roxburgh, Walter Sandeman, Wm. M. Semple, William Seright, Robert M. Service, William Shand, Walter W. Spence, Charles D. Temple, Allan Watt, Charles Whish, John White, Andrew Wilson, James Wilson, John S. Wright.

University of Aberdeen.—At the late Medical Graduation Term, the following candidates, after the usual examinations, received degrees in medicine and surgery:—*Degree of M.D.*—Alexander Theodore Brand, M.B., C.M., Driffield, Yorkshire; William Carnegie Brown, M.B., C.M., Penang; Silvester Williamson Findlater, M.B., C.M., Dufftown; Timothy Siddall Jones, M.B., C.M., Swansea; James Millar, M.B., C.M., Arbroath; John Hay Moir, M.B., C.M., Burton-on-Trent; Charles Lloyd Tuckey, M.B., C.M., London; James Hutchison Walker, M.A., M.B., C.M., North Borneo. *Degrees of M.B. and C.M.*—Henry M'Kenzie Adamson, Morphie, Montrose; George Henry Allden, Southampton; John Hector Anderson, Aberdeen; Joseph Anderson, Preston; Albert Henry Barrett, Wallingford, Berks; Christopher George Battiscombe, Blackheath; Francis Alexander Bennet, M.A., Cullen; William Ronaldson Clark, M.A., Edinburgh; James Will Cook, Allness; Alexander Mitchell Cowie, Mortlach; James Forsyth Craig, M.A., Leslie, Insch; George Burnett Currie, M.A., Aberdeen; Henry Moger Cyrill Dalton, Newcastle, N.S. Wales; George Duffus, Cullen; Walter Angus Elmslie, Resthwet. Chapel of Garioch; Charles Albert Faulkner, Rajahmundry; John Andrew Fehrsen, Graaf Reinet, S. Africa; William Revely Forster, Blyth, Northumberland; John Gordon, Keith; Thomas Bell Graham, Ecclefechan; Andrew Grant, Balmoral; John William Harrison, Sandwich, Kent; Charles Robert Lyall, Aberdeen; Stuart Macdonald, Elgin; Frank Innes Macintosh, M.A., Deskford, Cullen; Alexander Maclean; F.R.C.S. Edin., Thurso, Caithness; George Milne, Methlic; James Mitchell, Aberdeen; James Mitchell Munro, Inverurie; Alexander Murchison, Lochcarron; Eapen Poonen, B.A., India; Robert Dowell Presslie, Aberdeen; Alfred Ernest Roberts, London; William Robertson, M.A., Rathen; William Ledingham Ruxton, West Riding Asylum, Wakefield; James Savege, Montrose; William Leith Ireland Sutherland, Aberdeen; Herman Thiele, Bermuda; Leslie Fyfe Walker, Aberdeen; John Eustace Webb, Windsor; James Will, Ellon; John Thomas Windle, Burnley. Of the above-named candidates, George Henry Allden, William Ronaldson Clark, John Gordon, Alfred Ernest Roberts, James Will, received their degrees in medicine and surgery, with honourable distinction. The John Murray Medal and Scholarship was awarded to Arthur Greatorex Smith, and will be presented to him along with his diplomas on his attaining the necessary age. At the same time, Arthur Stephen Inglis was certified as having passed all the examinations, but did not graduate.

The Port of London Hospital.—The hospital which has been erected near Gravesend, to supersede the floating hospital *Rhin*, was opened by the Lord Mayor on Thursday, the 17th inst.

The *St. James's Gazette*, which has already given evidence of being inspired on the subject, tells us that "An important step is about to be taken by the Kensington Board of Guardians, so soon as they have obtained the consent of the Local Government Board, which there is no reason to think will be refused. This is the introduction of clinical lectures delivered by the resident medical officer in the wards of the workhouse infirmary to a following of six medical students, who will be allowed to reckon this instruction as a part of their professional education in connection with the West London Hospital. This may possibly be only the beginning of an important movement, which must end in the introduction of the regular hospital system with the school of students. The change may possibly be beneficial in many ways; to the patients, because they will be better attended to when the education of a body of remunerative pupils depends upon the careful study of their diseases; to the doctors, by opening out a wilder field than the crowded posts attached to voluntary hospitals afford, and by providing the opportunity of studying long and chronic cases which are more rarely met with and not often traced to their end in hospitals; to the resident officers, matron, and nurses, by bringing a fresh energy and zeal into the workhouse infirmaries, encouraging a high standard of work and remorselessly stamping out jobbery and exposing inefficient and perfunctory nursing and management."

The Medical Bill.—The *Times*, in a leading article on the Medical Bill, says:—"The machinery to be created is somewhat cumbrous, and will probably be costly; but it seems likely to attain the end proposed. It will do away with the scandal of the present competition for the patronage of the less instructed students; for the licensing bodies which have always maintained their standard will form majorities on the Boards and in the Council. The proposal that a few members of the Council should be elected by the profession is one which it would be difficult to defend on any ground of reasonableness; and, while it will give a great deal of useless trouble, the best which can be said for it is that it will probably not do much harm. It will be likely to remove one or two eminent men and to replace them by busybodies who take the trouble to canvass; but the busybodies, if such should be elected, will be insignificant in point of numbers."

Erratum.—In the article on "Paraldehyde as a Narcotic," (*Medical Times*, April 19th, 1884, p. 537) for Cirullo read Cirvello, and for grains read grammes.

Society for the Relief of Widows and Orphans of Medical Men.—A Quarterly Court of the Directors of this Society was held on Wednesday, April 9th, at 8 p.m. Sir James Paget, Bart., President, in the Chair. A letter was read from Sir George Burrows, late President, in answer to a resolution passed at the last Court on his resignation of Presidentship. The death of a widow, receiving 50*l.* per annum, was reported; there were no fresh applications for relief. Four new members were elected, the deaths of two announced, and the resignation of another. The half-yearly applications from the widows and orphans on the funds were read, and it was resolved that a sum of 1,162*l.* be granted at the next Court to 57 widows, 5 orphans, and 3 recipients from the Copeland Fund. It was also resolved that Mr. James T. Ware and Sir Erasmus Wilson be nominated Vice-presidents in the place of Sir James Paget, elected President, and Mr. Charles Hawkins, resigned, and that Dr. Kempster, Mr. Stamford Felce, Mr. Brodhurst, Mr. Iowne, jun., Dr. Herbert Davies, and Dr. Russell Reynolds be nominated Directors in the place of the six seniors who retire. Tuesday, the 13th of May, was fixed for the Annual General Meeting at 5 p.m.

The Recent Operations in the Soudan.—H. M. Indian troopship arrived at Portsmouth on Monday, bringing home about 60 sick and wounded, including Surgeon Cross, R.N., and Surgeon Prendergast, A.M.D. Throughout the campaign the *Jumna* did duty as a hospital ship, affording cot-accommodation for 180, and even upon an emergency for as many as 250 men. The medical requirements were under the direction of Surgeon-Major Vermont, A.M.D., who has been assisted by Surgeon-Majors Greene and Morgan, and Surgeons Chapman, Flood, Brown, and Pedlowe. On the passage home only one death occurred, viz., from enteric fever. Many of the sick and wounded made satisfactory progress during the voyage, and the number of cases requiring to be sent to the Royal Hospital at Netley will be considerably less than was at one time feared.

Volunteer Ambulance Work.—In connection with the recent Dover Manœuvres, Deputy-Surgeon-General Stewart has reported very highly of the thorough practical knowledge and smartness displayed by the volunteers in ambulance work, in the employment of improvised splints, such as rifles, bayonets, &c., in the treatment of supposed fractures, and in the application of tourniquets, &c., for the arrest of hæmorrhage from wounded arteries.

CREMATION.—The Council of the Parkes Museum have decided to arrange in the Museum a collection of models and illustrations of objects relating to cremation and improved forms of burial and disposal of the dead, as a supplement to the International Health Exhibition, this subject not being included in the classification of that Exhibition. The Council will be very glad to receive offers of models, or other information, as they wish to make the collection fully representative of the latest and most approved plans and methods.

SHOP ASSISTANTS.—Sir John Lubbock has undertaken to introduce a Bill in the House of Commons for the purpose of regulating the hours of labour of shop assistants, and improving the sanitary conditions under which their work is carried on.

WOMEN-DOCTORS IN PHILADELPHIA. — At a largely attended meeting of the Philadelphia County Medical Society, on April 2nd, a proposal was made to amend its constitution, with the view of permitting the admission of female physicians to membership. The proposal was supported by 79 votes, and opposed by 48 votes, but as a two-thirds majority is required before any change in the constitution of the society can be accepted, the proposal was lost.

APPOINTMENTS.

BARLING, GILBERT, M.B., F.R.C.S.—Honorary Assistant Surgeon to the Birmingham Orthopædic and Spinal Hospital.

DONALD, ARCHIBALD, M.B., C.M. Edin., M.R.C.S.—House Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

DRUITT, LIONEL, M.D., C.M. Edin., L.R.C.P.—Medical Officer to the South Lambeth District.

FRASER, T. A., M.B., C.M. Edin., M.R.C.S.—House Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

GREEN, JAMES U., L.R.C.S. Edin., L.R.C.P. Edin.—Medical Officer to the First and Second Districts, Woodbridge Union.

JONES, GEORGE H. W., M.R.C.S. Eng., L.S.A.—Medical Officer to the Eckington District, Chesterfield Union.

LLOYD, R. W., L.R.C.P., M.R.C.S.—Administrator of Anæsthetics to the West London Hospital.

LUCKMAN, E. L., M.R.C.S., L.R.C.P.—Surgeon to the Altrincham Hospital and Dispensary, *vice* W. O. Jones, resigned.

MIDDLETON, A. H., L.R.C.S.I.—House Surgeon to the City of Dublin Hospital, *vice* J. D. Pratt, M.B.

OLIVER, J., M.B.—Assistant Physician to the Hospital for Women, Soho Square, W.

OSBORN, S., F.R.C.S.—Assistant Surgeon to the Hospital for Women, Soho Square, W.

STRICKLAND, CHARLES, E., M.R.C.S. Eng., L.K. and Q.C.P. Ire.—Medical Officer to the Kidsgrove District, Wolstanton and Burslem Union.

STURGES, OCTAVIUS, M.D., F.R.C.P.—Physician to the Hospital for Sick Children, Great Ormond Street, *vice* W. H. Dickinson, M.D., resigned.

VEALE, HENRY, M.D.—Physician to the Essex and Colchester General Hospital, *vice* A. Wallace, M.D., resigned.

WATSON, JOHN W., M.R.C.S. Eng., L.S.A.—Medical Officer to the Fourth District, Ashby-de-la-Zouch Union.

WESTBY, GEO., M.K., Q.C.P., L.R.C.S.—Honorary Assistant Surgeon to the Liverpool Hospital for Cancer and Skin Diseases.

WILSON, RICHARD, M.R.C.S. Eng., L.S.A.—Medical Officer to the Grantham District, Grantham Union.

VACANCIES.

BIRMINGHAM PARISH.—Medical Officer for the Fifth District, in succession to Mr. John Darwen, deceased. Salary, £175 per annum.

CHELTENHAM GENERAL HOSPITAL. — Junior House Surgeon and Chloroformist. Salary, £20 per annum, with board and lodging. Candidates must possess a registrable qualification, and be unmarried. Application, stating age, with testimonials, to be sent to the Honorary Secretary, on or before May 3rd.

CHESHIRE COUNTY ASYLUM, PARKSIDE, MACCLESFIELD.—Medical Superintendent. Salary, £500 per annum, with furnished house, &c. Candidates must be duly qualified and registered Medical Practitioners. Full particulars can be obtained on application. Applications and testimonials, with 30 printed copies of the latter for circulation among the committee, to be sent to Mr. A. C. Procter, on or before May 3rd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—Assistant Physician. (*For particulars see Advertisement.*)

HOSPITAL FOR DISEASES OF THE THROAT, GOLDON SQUARE, W.—Two Surgeons. Candidates must be Fellows or Members of the Royal College of Surgeons of England. Applications, with testimonials, to be sent to the Committee not later than May 2nd.

MACCLESFIELD GENERAL INFIRMARY. — Junior House Surgeon. Salary, £70 per annum, with board and residence in the Institution. Candidates must be doubly qualified and duly registered. Applications to be sent to the Chairman, House Committee, Macclesfield Infirmary, on or before May 3rd.

TOWN AND DISTRICT HOSPITAL, NEWARK-UPON-TRENT. — House Surgeon and Secretary. Salary, £100 per annum, with board and lodging. Testimonials to be sent not later than May 1st.

DEATHS.

BECHER, EMIL, M.D., Brigade Surgeon, at Stuttgart, on April 14th, aged 55.

FIELD, OCTAVIUS A., F.R.C.S., at the Manor House, Southall, on April 21st, aged 72.

FREEBORN, FERNANDEZ, M.D., F.R.C.P., M.R.C.S., at Oxford, on April 20th, aged 60.

REYNOLDS, JOHN SWATMAN, L.R.C.P., &c., at 22, Denmark Road, Lowestoft, on April 9th, in his 35th year.

STONEHAM, PHILIP, M.R.C.S., at Ilfracombe, on April 16th, aged 76.

UNSWORTH, FRANCIS HENRY, M.R.C.S., L.S.A., at Beechworth, Victoria, on February 16th.

NOTES, QUERIES, AND REPLIES.

A NEW METHOD OF REDUCING DISLOCATION OF THE LOWER JAW.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—A young lady, aged 16, was brought to me by her aunt for consultation last month, with slight deformity of the face. About two years ago she had a fit of yawning, and since that she had noticed a contraction in the entrance to her right ear; she could not introduce her little finger on that side so easily as on the other. On bidding her to force the little fingers into the ears, while I manipulated with the articulation, and she opened and shut her mouth six times rapidly, we both heard a rapid snap, and felt the articulation enter its socket, and now hope that in time the face will take its normal position. Six weeks have passed, and the aunt has called to say, her niece is quite well, and her features are restored to order. Having related this case to a retired East Indian Surgeon, who had a great horror of finding his thumbs caught by the teeth during the reduction and rapid closing of the jaw, he immediately introduced his little fingers into his own ears, and was surprised on finding the joints move so well under his fingers; but said, he always used the protection and precaution of strong gloves with the natives of India.

I am, Sir, yours, &c.,

18, *Power Road, Brighton.* R. TUTHILL MASSY, M.D.
April 18th, 1884.

The late Duke of Albany.—The President, Vice-Presidents, and Council of the Royal College of Surgeons of England have sent the following Address to H.M. the Queen:—"May it please your Majesty, We, the President, Vice-Presidents, and Council of the Royal College of Surgeons of England, venture to approach your Majesty, in order to express our profound sorrow at the sad calamity which has fallen upon your Majesty and your Majesty's House, and which has filled the whole nation with the deepest grief. We deplore the loss to your Majesty of so beloved a son, and to the nation of so cultured and amiable a prince; and we humbly offer to your Majesty our tribute of admiration to the high character and qualities of His Royal Highness, the lamented Duke of Albany, and our heartfelt sympathy with your Majesty and your Majesty's family, in this great affliction. We ask leave to express, through your Majesty, our sincere condolence with Her Royal Highness, the Duchess of Albany, in her overwhelming bereavement."

Collegiate Examinations.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates for the diploma of Membership of the Royal College of Surgeons on the 18th instant, when they were required to answer at least four (including one of the first two) out of the six questions between the hours of 1.30 and 4.30 p.m., viz.:—1. Mention the relations of the trachea. 2. Describe the course, relations, and anastomoses of the plantar arteries. 3. Contrast the clinical characters and history of an innocent and of a malignant tumour. 4. Describe the mode of formation and treatment of fistula in perinæo. 5. Give the various means of arresting arterial hæmorrhage in recent wounds, with the advantages and disadvantages of each method. 6. Under what circumstances would you advise the removal of a portion or of the whole of the tongue?

The following were the questions on Midwifery and Diseases of Women submitted on the following day, when they were required to answer three out of the four, viz.:—1. Describe the clinical history of the vomiting occurring during pregnancy. How would you treat a case in which it is so severe as to impair health? 2. How would you distinguish the breech from the face when presenting? How would you treat a case in which the face presented at an early stage of labour? 3. Describe the cranioclast and the operation "cranioclasm." 4. To what morbid conditions may gonorrhœa in the female give rise? Describe briefly the symptoms and treatment of each of the complications you mention.

The following were the questions on the Principles and Practice of Medicine, when three out of the four questions (including No. 4) were required to be answered:—1. Discuss the morbid anatomy,

symptoms, and consequences of exophthalmic goitre, or Graves's disease. 2. What are the specific symptoms due severally to disease of the posterior columns of the cord, disease of the lateral columns, and disease of the anterior grey horns? 3. What are the causes of abdominal dropsy, and what the signs and symptoms of its presence? 4. What are the medicinal properties, the uses, and the doses of the following drugs—dilute nitric acid; subnitrate of bismuth; confection of senna; creasote; elaterium; extract of cannabis indica; liquid extract of opium; and mistura ammoniaci?

The list of successful candidates appears on another page.

Dr. Young, Hongkong, China.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Dr. Jacob, Dublin; Dr. J. K. Fowler, London; The Hon. Secretaries, Medical Society of London; Mr. R. J. Godlee, London; Messrs. G. Street & Co., London; Dr. W. Alexander, Liverpool; Mr. T. M. Stone, Wimbledon; Dr. Domett Stone, London; The Secretary, South London School of Pharmacy; Dr. Herbert Collier, Gorleston, Great Yarmouth; Mr. Trueman Wood, London; The Sanitary Commissioner, Punjâb; Mr. W. Southwick-Rogers, London; Mr. Lawson Tait, Birmingham; The Registrar-General for Scotland, Edinburgh; The Secretary, Society for the Relief of Widows and Orphans of Medical Men, London; The Secretary, Parkes Museum, London; Dr. J. W. Moore, Dublin; The Secretary, Royal Institution, London; Mr. Farrington, Diss; Messrs. A. and C. Harston, London; Surgeon-General W. R. Cornish, Madras; The Secretary, National Association for the Promotion of Social Science, London; The President, Pharmaceutical Society of Great Britain, London; The Secretary, Charing Cross Hospital Medical School, London; The Secretary, Hospital for Consumption, Brompton; The Curator, Sanitary Institute of Great Britain, London; Mr. J. G. McKendrick, Glasgow; The Secretary, Hospitals' Association, London; Mr. Wynter Blyth, London; Dr. Tuthill Massy, Brighton; The Hon. Secretary, Obstetrical Society, London; Dr. J. V. Shoemaker; Dr. Norman Kerr, London; Secretary of the Medical Congress, Berlin; Mr. A. S. Kenny, London; Mr. A. Neilson, Liverpool; Mr. Wm. Crookes, F.R.S., London; The Secretary, Medico-Psychological Association, Hanwell; The Secretary, Local Government Board, London; Dr. Norman Chevers, London; Mr. G. H. Makins, London; Dr. G. V. Poore, London; Dr. Shelly, Hertford; Dr. Donkin, London; Dr. G. Coates, London; The Secretary, Faculty of Physicians and Surgeons, Glasgow.

BOOKS RECEIVED—

A Narrative of the Origin and Foundation of the Hospitals' Association—British Medical Association (South India Branch) Inaugural Address, by Surgeon-General W. R. Cornish, F.R.C.S., C.I.E.—Moral (Affective) Insanity—Psycho-sensory Insanity, by C. H. Hughes, M.D., St. Louis—Pathological Anatomy, by Ernst Zeigler—Diabetes Mellitus, by Harvey J. Philpot—Report on the London Water Supply—Reasons against Cremation—Ueber einen Fall von Tubo-Ovarialcysten-Schwangerschaft, von Fs. Vulliet—The Municipal Government of London, by the Chamberlain of London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynakologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt fur die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—The Sheffield Daily Telegraph, April 17th and 23rd—The American Journal of Obstetrics—North Carolina Medical Journal—The Westminster Review—Révue Médicale de la Suisse Romonde—Brain—The Southern Clinic—The American Journal of the Medical Sciences—Révue d'Hygiène—The American Psychological Journal.

APPOINTMENTS FOR THE WEEK.

Friday, April 25 (this day).

Clinical Society of London.—Meeting. The following Papers will be read:—Mr. Gant, "A Case of Epithelioma of the Tongue;" Mr. Turner, "A Case of Gluteal Aneurysm;" G. M. W. Arbuthnot Lane, "Extensive Venous Thrombosis following Fracture of the Forearm;" D. Lediard, "Fracture of the Coronoid Process, with Dislocation backwards of both Bones of the Forearm."

Saturday, April 26.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Mr. H. M. Westropp, "Roman Archæology: The Colosseum."

Monday, April 28.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Medical Society of London.—Dr. Cayley and Dr. Gibbes will read a Paper on "A Case of Ulcerative Endo-carditis, with Microscopic Specimens;" Dr. J. Kingston Fowler, "A Contribution to the Pathology of Hydro- and Pyo-salpinx."

Tuesday, April 29.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Royal Institution, 3 p.m.—Dr. Klein, "Nerve and Muscle."

Wednesday, April 30.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, May 1.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution.—Annual Meeting at 1.30 p.m. Prof. Dewar, "Flame," &c., at 3 p.m.

Friday, May 2.

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m., Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m.—Prof. Judd, "Krakatoa."

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MEDICAL TIMES
AND GAZETTE.

No. 1766. LONDON, SATURDAY, MAY 3, 1884.

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CONTRIBUTIONS TO THE HISTORY AND TREATMENT OF NERVE DISORDERS.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

Sciatica.

THE first of the subjoined cases of this malady was one of more than usual difficulty and interest, the others are of a more ordinary quality. All, however, I venture to think, will repay perusal.

Case I.—J. W., aged 60, costermonger, admitted March 25th, 1883. A tall gaunt man, well made. Had rheumatic fever twenty-four years ago, and several times since. Last ten years has had sciatica severely in left leg and thigh, and lately has had a good deal of bronchitis, for which he is now in hospital. The bronchial catarrh commenced about March 4th, is attended with thick greenish expectoration, and with dry and moist sounds over both fronts and backs, especially at the posterior bases. Lower ribs do not expand anteriorly. Heart fairly normal. Pulse 72, full, regular. Radial artery extremely cordy, but on compression of the brachial, the radial ceases to be felt. Splenic dulness of moderate extent. No ascites. No history of syphilis. Urine clear, and no albumen. Pain plays from point of exit of sciatic nerve, from pelvis to ankle; is worse in cold weather. The pain has been so severe as to prevent him from following his occupation. He says that he has often been obliged to drop his basket and throw himself on the ground. Some two or three years ago, the operation of nerve-stretching was performed, but the result of it, according to his own account, was by no means favourable; he was easier for a few days, but soon became worse than he had been before. My colleague, however, who performed the operation tells a very different tale; he affirms that the patient was free from pain for four months after the operation, and was much benefited for a year, and wished to have the operation repeated after the pain returned in force. My colleague's statement is confirmed by others, and of course is much more reliable than the patient's, but there is no question that, for more than a year before he came under my care, he was suffering very severely from sciatic neuralgia. He used to haunt the hospital continually, and plague the resident officers with his importunity for subcutaneous morphia, which was the only thing that relieved him. He had used it, he says, for ten years, but latterly he was obliged to have it twice a day, and in double quantity. His dose was ℥ xv, of the hospital solution, *i.e.*, nearly gr. i. The drug had certainly deteriorated his nerve-power, he was quite a victim of the morphia habit. Yet, I think we should remember that he was enduring grievous pain, and had endured it for many years, and should not rank him among those who have not his excuse for abusing

the remedy which, properly employed, well deserves its appellation "divine." Pain, long and severe, makes sad havoc in the harmonies of our many-stringed harp, and in my experience, as well as in that of others, has altered a naturally sweet and graceful *morale* grievously for the worse. Churchill tells the story of a very sweet-tempered woman, who, under protracted uterine suffering, became—to use her own words—so cross, that there was no living in the house with her. So this poor fellow, either from morphia, or from pain, or from both together, was a very wreck. I have rarely, if ever, met with a more discouraging case. My note about him, after three weeks' observation, runs to the effect, that he is very morose and unhappy, always craving for morphia on account of his pain. I saw that the morphia must be abandoned, if there was to be any hope of a thorough cure, and I had cut down his allowance of it considerably. On this account he regarded me with no good will, and always met me on my visit with a scowling gloomy face, and the sullen reply to my enquiry, "No, sir, I'm not a bit better." On April 23rd, he was more restless and discontented than ever, still hungering for morphia, and had almost made up his mind to leave the hospital. By this time his bronchitis was a good deal better, having been treated with Mist. Scillae c. Ferro ter die, and with pills of Ipecac. gr. ½, Opii gr. ¼ tertiis horis, until April 7th. Five days before he had begun phosphorus in doses of gr. $\frac{1}{33}$ ter die, and two days later he commenced Tonga in ℥i doses, which he took for a week, but the sciatica was nothing bettered. Twice about this time acupuncture was practised, but ineffectually. Examination made *per rectum*, detected no tumour, nor anything abnormal on either side of the pelvic outlet, save that there was more tenderness on the left than on the right. On April 27th, he was ordered Quiniæ Disulph. gr. v quater die, which produced some cinchonism, and was reduced to gr. v ter die on May 3rd, when Ferri Carb. Sacch. gr. 20 bis die was also added. On May 28th, the quinine was replaced by Ol. Terebinth. rect. ℥ xx ter die. Phosphorus omitted.

May 31st.—The old pain in the left thigh is confessedly better, but he suffers with darting pain in the peroneal region of leg, extending from the outer side of the knee to the ankle. It is worse at night, but he sleeps well now without morphia. The left lower limb is weaker than the right, he cannot walk well without the help of a stick. Phosphorus and carbonate of iron omitted three or four days ago. June 4th.—He feels better in himself since he has taken the Ol. Terebinth., but it has not relieved the pain in left ankle. Benzol to the part has done some good. Ordered Calcis Hypophosphitis gr. xv, Tr. Calumb. ℥ xv, Aq. ℥i. ter die, and to continue Ol. Morrh. which he commenced some while ago. On June 7th, an ice-bag was ordered to the left lumbar region; this rendered his feet much warmer, but reproduced pain in the hip, so it was not continued long. On 15th, galvanism was ordered daily to the leg; I cannot say how long it was employed, for I did not observe any marked benefit from it. By June 25th he was much more cheerful; according to the ward-sister's report, he was quite a different man. He walked about stiffly, halting on his left leg; felt less pain in the ankle, but it was still very rigid; at times I could not move it at all, at others but slightly. No ankle clonus in either leg. No knee-jerk in *either* leg; this was ascertained on repeated and careful trials. He was quite unable to flex the knee against the force of my arm resisting, while lying on his back. It is difficult for me to flex the knee, the leg being kept extended by powerful contraction of the quadriceps extensor. By gentle management this resistance can be overcome, and the knee flexed to an angle of 45° with the surface. Considerable pain was felt at posterior part of hip and thigh on passive extension or flexion of the knee. The knee and hip-joints are quite free and mobile, but not so the left ankle. The left lower limb appears as large as right, measurement over both calves is equal. He says he has gained flesh largely in the left limb, at one time it was much wasted. Ordered Ammonii Bromidi gr. x, Sodii Bromidi gr. x, Inf. Cascarill. ℥i. ter die. Pt. c Oleo. 28th.—Two days ago he complained of very severe pain, much worse than usual, and increased pain was felt also in knee. To-day this aggravation has subsided (it was probably due to the prolonged examination on 25th), and he has a good deal less pain than a week ago. Knee-jerk is now produced pretty readily in right leg, and tolerably after some trials in left, but not so well as in right. No cremaster reflex on either side. Never had any difficulty either with bladder or bowel. Ankle (on 30th) feels hot and throbbing, but has lost the dull aching pulling pain. Can "work" his ankle, *i.e.*, flex and extend it very much better than he could, but it is still very tender to handle. July 7th.—He sleeps much better, longer at a time; used only to get short bouts. Can flex his ankle well, raising the toes four inches or so from the floor. Complains of great sense of weakness about lower part of leg and ankle, but bears pressure on ankle better. Knee-jerk can be obtained in both legs with about equal facility, but not on every trial. 21st.—Two days ago left foot was much more mobile, and could be moved freely in flexion and extension with but little pain. There was no ankle clonus. Knee-jerk can be obtained in a pretty well marked manner about once in three trials in left leg. Can walk well even without a stick, though he evidently prefers it, and can stand a little on left leg. Some pain is felt at outer side of foot, and there is tenderness at a spot a little behind outer malleolus. Blister of half-crown size to this part. Omitr. Bromida. Sodii Hypophosphitis gr. xv, Tr. Calumb. ℥ xv, Aq. ℥i. ter die. Aug. 30th.—The first blister having agreed with him fairly well, a second was applied on July 26th, two or three inches higher up at the outer part of the left leg; it was made by painting just like the first. Its effects have been quite disastrous, the area affected ulcerated, a large slough formed about its middle, and is now only just detached. The ulcer seems little inclined to heal, is covered with a thin yellowish grey layer forming a network, the meshes of which are occupied by red granulations. No application agrees with it except carbolic lotion, all others cause pain. His general health continues good. From Aug. 9th to Aug. 27th he had Tr. Cinch. ℥iss, Ammon. Carb. gr. 4, Dec. Cinch. ℥i ter die. Afterwards he resumed the hypophosphite mixture. Extr. Belladon. gr. ¼ ter die was tried for some time, but was not of any material use. Sept. 25th.—The ulcer progresses in healing very slowly, it is still about 1½ in. by 1 in., but looks well and is granulating normally. He has an excellent appetite, sleeps well, is free from pain, is in good flesh, makes no complaint. He is, in fact, quite a different being from what he was five or six months ago. The only abnormality I observe is a good deal of twitching of some muscular fasciculi in the left calf, when his leg is lying on the bed on its inner side. He has continued the hypophosphite mixture till now, and the cod-oil probably. The small veins of the foot have been a good deal enlarged, and he has kept the foot elevated a good part of the day to promote the return of the venous blood. He left the hospital late in September, and went for three weeks or four to the Walton Convalescent Asylum. He presented himself on Oct. 18th, quite well, the ulcer healed, he looked blooming, and walked without a stick. I asked him on leaving his opinion of nerve-stretching, but he shrugged his shoulders and shook his head.

Case II.—E. J., aged 50, admitted January 23rd, 1883. Family history good. He had typhoid nineteen years ago,

small-pox seven years ago, gonorrhœa a good many years ago. No history of syphilis. Since he had typhoid he has been liable to rheumatic pains in his legs, worse during changes of weather. Six weeks ago he was forced to lie in bed with pains in his right leg, more especially in right hip. Health is otherwise good. His work is chiefly at night—a railway porter; thinks night-work takes more out of a man than day-work. Lungs and heart seem healthy. Temperature normal. Pulse 84, regular, firm. Abdomen large. Urine sp. gr. 1025, acid, clear, of orange colour, contains no albumen or sugar. Bowels open. Complains of pain all about right hip, and down the whole limb to the foot, the pain is constant and aching. No tenderness about hip, except a little outside the tuber ischii. Sitting on right tuberosity feels like sitting on a stone. The hip and foot have been cold and numb, but are warm now. Head of femur can be moved freely in acetabulum. His sleep is disturbed a good deal by pain. He was ordered Sodii Hypophosphitis gr. xv, Tr. Calumb. ℥ x, Aq. ℥i ter die, and Ferri Carb. Sacchi. gr. 20 bis die. February 1st.—Slept well. Pain less, it is now principally in the hip. He can stand better. Acupuncture employed. By February 19th, he was well and left hospital very soon after.

Case III.—W. W., aged 70, a fitter, admitted September 13th, 1882. Family history good as far as his children are concerned. Generally healthy. For the last month has had a great deal of pain in the right buttock, extending down back of thigh and leg to sole of foot. Much tenderness on pressure over sciatic nerve between tuber ischii and great trochanter. When pain first began, he found relief in walking about a little. When pain has been severe, he has had to keep the leg straight and quiet. Linim. Sinapis to buttock. Sodæ Hypophosphitis gr. 10, Inf. Cascarill. ℥i ter die. Pil. Hydr. c. Coloc. h. n. 21st.—Walks about much better, feels nicely, appetite good. Urine acid, sp. gr. 1020, no albumen. Hip joint is quite free. Pt. c Mist. c gr. xv ad ℥i. Ol. Morrh. ℥i bis die. 28th.—Pain increased yesterday, relieved by blister to hip. Distinct crepitus in right knee joint when handled, knees stiff in walking. October 5th.—Doing very well, wants to go out, walks about fairly well.

Case IV.—M. C., age 18, housemaid, admitted September 21st, 1878. Comes from Dorsetshire, has never had ague, or been in the way of it as far as she knows. Is a stout-made person, not at all anæmic. Her mother had sciatica, the family history otherwise is good. She has had no previous illness except dyspepsia, from which she has suffered during last six months, and severe sick headache. She has been suffering with pain in the left thigh for twelve months, it has been gradually getting worse, and is now so bad that it keeps her awake at night, and makes her walk lame. The pain extends from behind great trochanter to the back of the knee. When she kneels the pain is felt in front of and not behind the knee. Coughing hurts her at the hip. The pain is described as gnawing, and is worse when she is warm in bed. Bowels are generally open. Catamenia regular and sufficient. Heart-sounds normal. Pulse 72. Tongue clean. Has lost several molars. Urine free from albumen. Potass. Iod. gr. v, Sodæ Bicarb. gr. v, Dec. Cinch. ℥i ter die. Blister over sciatic nerve at its exit from pelvis. Diet ord. milk and beef-tea. 24th.—Subcutan. Morphia. 26th.—Repeat blister. Ferri Carb. Saccht. gr. xv ter die. 30th.—Much better, but has pain still on moving limb; has most pain when warm in bed at night, is sometimes quite free, mostly in afternoon. Port 4 ozs. Quiniæ Disulph. gr. v, Acid. Sulph. dil. ℥ vii, Aq. ℥i ter die. October 3rd.—Doing well, some pain and tenderness at crest of ilium on right, near sacro-iliac synchondrosis, pressing the two surfaces together causes pain. Blister. October 7th.—Benefit from last blister, but has pain now over exit of sciatic nerve. Firing with disc at 212° over seat of pain. 10th.—Is decidedly better, walks fairly well. Went out on 11th.

Case V.—E. S., aged 40, married, admitted March 15th, 1878. Married twenty years, and during that time has had fifteen children, only three of whom are now alive. She had easy labours with all, except the last, which was premature at the sixth month. For six weeks after the delivery she had very severe hæmorrhage. Since then she has been very regular as regards catamenia, but during the last week has again had a good deal of hæmorrhage. Last confinement was at end of April, 1877. Before this, she was in the hospital under Dr. Meadows for some complaint of the womb. During her pregnancies she has always suffered from great pain in her right calf, but never in her left. On admission complained of great pain of a dragging, gnawing character, felt all along the back of left thigh and leg, extendiug from hip to ankle. Pain is felt whenever she moves her leg or foot, but not in her knee. She has also a bad headache, and feels very sick. Heart and lung-sounds normal. Bowels costive lately, are generally regular. Appetite bad. Sleeps badly, but not from pain. At a spot about four inches inside great trochanter, and two inches above tuber ischii, great pain is felt on pressure, which shoots down to ankle. She was fired at this spot with a disc heated to 212°, and a blister raised. Ordered Strychniæ gr. $\frac{1}{24}$, Acidi Nitrici ℥ ii, Spi. Chlorof. ℥ vi, Aq. ℥i ter die. Ferri Carb. Saccht. gr. 20 bis die. Conf. Sennæ ℥i ad sedem. 19th.—Cervix uteri is bulky, in normal position, is wide transversely, anterior lip natural, posterior notched and fissured, especially on left; it feels soft and flaccid. Is a well-made person, in good condition, not hyper-excitable, bore the pain of firing well. April 1st.—Quinine gr. v ter die. 11th.—Has still some pain in leg, but is so much better that she wants to go out; has a good deal of brownish discharge from uterus. Blister to left hip, over exit of sciatic nerve. Alum and oak-bark injection. She went out at her own desire on 13th.

Case VI.—M. A. P., aged 25, nurse, admitted April 10th, 1879. Health generally good, looks well and is in fair flesh, has dark hair and eyes, has had no special previous illness. Was taken ill about a month ago with rheumatoid pain in left thigh, knee, leg, and ankle; the pain affected chiefly the front and outer part of leg. Much pain felt when pressure is made between the tuber ischii and the great trochanter, especially at a level a little below the lower edge of glutæus maximus; pain is also felt in popliteal space. Femur moves freely in acetabulum. The pain came on without any apparent cause. Is unable to walk well. Complains that she has had no sleep at night for three weeks. Lungs and heart normal. She had an ulcerated throat two years ago; no skin eruption. She feels week, her appetite is bad. Bowels generally confined, but last three days well open by medicine. Pulse 84, rather weak. Ordered Extr. Nucis Vomicæ gr. $\frac{1}{2}$, Aloes gr. ij in pil. ter die. Pot. Iodidi gr. v, Ammon. Carb. gr. iv, Tr. Cinch. ℥i, Dec. Cinch. ℥i ter die. Morph. Subcut. gr. $\frac{1}{6}$ p. r. n. 16th.—Pain occurs only at times during the day, lasts about one hour; but at night comes on between 7 and 8 p.m., and keeps her awake all night, unless she has an injection of morphia. She is dreadfully thirsty at night, not so much in day. Quinæ Disulph. gr. v, Acid. Sulph. dil. ℥ vi, Tr. Card. Co. ℥ xv, Aq. ℥i ter die. Ferri Carb. Saccht. gr. xxvi bis die. 21st.—Is quite free from pain now, wishes to go out; left in a day or two.

Case VII.—G. A., aged 26. Seen May 16th, 1873. Ill four months. Had first a gonorrhœa followed by a gleet, and then by bubo in left groin, which has disappeared now. Had rheumatoid pains in head and neck for three weeks, since they ceased he has had pains in left

hip and half-way down the back of thigh; he walks lame in consequence. Three years ago he had a bubo in left groin, the ulceration from which extended very widely, and has left cicatrices extending up to sixth or seventh rib, and from near middle line to vertical line of anterior superior spine of ilium. The pain he has now is felt midway between trochanter and tuber ischii, and along back of thigh. Both hip-joints are quite free. The pain in hip disturbs his rest at night. Ferri Carb. Sacch. gr. xx ter die. Subcut. Morphia p. r. n. 21st.—Is much better; can walk to-day without a stick. Last few days has had some red prominent spots, with sero-purulent vesicles at their tops, on his prepuce and glans and near left groin; those on prepuce have dried up, but have left small indurations. 24th.—Much less sharp sciatic pain, but feels low. The eruption has appeared rather copiously on the back, neck, face, and arms; one patch on the arm has quite an annular arrangement. Pulse 90, of fair force. Temperature 98·6°. Pt. c. Pulv. Strychniæ gr. $\frac{1}{20}$, Acid. Nitrici ℥ ii, Sp. Chlorof. ℥ x, Aq. ℥i ter die. By June 11th the sciatica was quite gone from left leg, there was a little in the right; the eruption continued well marked. He was hot and restless at night. 24th.—Trifling sciatica in right leg. Has pain when he gets hot at night in right or left side of chest. Feels much better in himself. A good deal of eruption on legs, more red patches than vesicles; on arms and face it is fading. Pt. c Ol. Morrh. (commenced on 11th), Potass. Iod. gr. v, Ammon. Carb. gr. iii, Tr. Cinch. ℥ss, Dec. Cinch. ℥i ter die. Chloral. gr. xv o. n. July 7th.—More sciatica last three days in right leg; eruption is much less. October 6th.—Is all right except some macular and papular syphilide of the legs. Sciatica all gone except a slight stiffness now and then in right thigh. Pt. c Mist. c gr. viij ad ℥i. Pt. c Oleo. The eruption disappeared slowly; there were still traces of it on January 20th, 1874.

Remarks.—In Case VII. the sciatica was associated with a well-marked syphilide, and was doubtless a co-result of the toxæmia. It is noteworthy that it affected both legs, shifting from one to the other, which is extremely unusual in ordinary sciatica. It was of no great severity, and soon yielded to tonic treatment.

In VI. there was no apparent cause; quinine and iron soon cured. The nocturnal thirst was probably a neurosis like the neuralgia. Brodie relates the case of a lady suffering from thirst where quinine obtained a cure.

In V. the uterus was evidently at fault. It had been hard worked, and on the last occasion when its services were required it became irritable, and failed to bear its burden for the proper time. Its muscular tissue did not duly undergo involution, and its vessels did not contract adequately; so it remained flaccid, enlarged, and congested. The copious hæmorrhage impaired the nervous energy, both generally and locally, and disposed the weak organ to further losses. As the uterine nerves were injuriously affected by all this disorder, they carried to their spinal centre impressions which told unfavourably upon its nerve-cells and on the adjacent nerve-roots of the sciatic; paresis produced its cognate derangement—pain, and sciatica was established. I have recorded a case where severe gastralgia was set up in much the same way. (*Vide Medical Times and Gazette*, 1876, Vol. I., May.) In E. S., quinine in full doses was very beneficial, but the treatment should have been longer continued on account of the great risk of relapses.

In IV. it seemed as if there was some inherited tendency to sciatica, as there was no history of any other neurosis in the family. The disorder was of long duration, getting worse, but yielded to quinine and iron with counter-irritation in less than three weeks.

In V. the consecutive dry rheumatism of knees makes it probable that there was a rheumatic element in the sciatica; and the possibility of getting rid of the pain during its early period by exercise goes to confirm this notion. Hypophosphite and cod-oil benefited him greatly.

In II. the causation seems to have been manifold. His resisting power must have been impaired by the typhoid fever, and subsequently by the night-work, so that he became liable to rheumatoid pain. Probably the gonorrhœa increased this tendency. The hypophosphite and iron enabled him to recuperate his lost energy, and to raise his nerve nutrition to a painless level. Acupuncture seemed helpful.

Case I. was much the most severe and refractory of all, partly on account of the long duration of the malady—ten years—partly from the inveteracy of the morphia habit, which found its justification to a great extent in the relief it afforded to the severe pain. The difficulty of inducing the patient to submit to the privation, and to confide in his adviser, was very great, and at one time success appeared unattainable. Over two months passed away before material improvement was obtained. Had he been a private patient, almost of a certainty he would have sought other and more acceptable counsel at a much earlier period. It would have been better if I had commenced the use of quinine sooner, but the bronchitis claimed attention first, and when that was relieved, I hoped much from phosphorus. Neither it, however, at this time, nor tonga availed anything, nor was acupuncture, though fully tried, of any service. Tonga, I may say in passing, never has succeeded in my hands. The improvement inaugurated by the quinine was subsequently carried on very efficiently by hypophosphite, a drug whose value I cannot doubt, though various good authorities condemn it. Both in phthisis and in neuralgia, I rate it highly, and my experience of it has been pretty large. The absence of knee-jerk in *both* legs, after improvement had commenced is very remarkable, and not altogether easy to account for. I suppose the neuralgic process, deteriorating the nerve nutrition, must have rendered the spinal centre irresponsive to afferent impressions ascending from below, though not to descending volitional; and that this condition diffused itself transversely through the cord. It seems certain that no structural lesion had occurred. Another remarkable phenomenon was the very injurious effect of the second blister to the lower and outer part of the affected leg. There was nothing apparently morbid in the skin, which became so severely ulcerated, but it is certain that its vital power was greatly impaired; and it is impossible not to regard this deterioration as in some way dependent on the prolonged and severe neuralgia. It is well known that such disorder will turn hair grey, and cause other defects of nutrition, so that it is quite probable that it acted similarly in the instance before us. The improvement in this patient's *physique* coincided with an equally marked amendment in his *morale*. From being morose and sullen, he became cheerful and civil. In fact, he was a different being. Often, I fear, we do not make sufficient allowance for the effects of pain. Though pelvic exploration in J. W. detected nothing, it should never be omitted in difficult and refractory cases. It may discover uterine tumour, cancerous or fibroid, impacted scybala, or exostoses, or periostitis.

I am well aware of the very favourable results obtained by the operation of nerve-stretching in various neuralgic disorders, and I am not at all disposed to decry the procedure, but I doubt whether the good effects can be safely assumed to be permanent. It is clear they were not in the present instance, though his subsequent suffering probably led him to depreciate them unjustly. One of the chief lessons to be drawn from the history is the need, *rebus in arduis*, of *perseverance*.

None of the above cases can be ranked as examples of neuritis. Not that it can be affirmed that there was an entire absence of inflammation in all of them. But though a slight amount of *itis* may have been associated with the *algia*, the latter was certainly not dependent on the former. Instances are, however, met with where the reverse obtains, and in these scarification of the sheath of the nerve with the point of a long narrow-bladed knife may be practised with great advantage. Cupping over leech-bites may be better in very recent cases. Dr. Maclachlan relates the case of a poor man reduced to a skeleton, and having all the appearance of a person labouring under malignant disease, who had been suffering severely from sciatica for two months. An obscurely fluctuating colourless swelling was found behind the trochanter major, which, on being opened, gave vent to two or three ounces of pus, with immediate relief, and from that day convalescence ensued. I once adopted this procedure with apparent success, though no pus was evacuated.

A CONTRIBUTION TO THE PATHOLOGY OF HYDRO- AND PYO-SALPINX.[1]

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In the course of a discussion recently held by the Obstetrical Society of London, on the subject of hydro- and pyo-salpinx, it was remarked by more than one speaker as a curious fact, that if these conditions were so common as some would make out, they should not be met with at the general hospitals. In order to show that such cases are not uncommon, I have thought it worth while to put together the records of fifteen examples, which I have met with in the *post-mortem* room of the Middlesex Hospital, in the course of the last three years.

I do not propose in this communication to describe the symptoms which may arise from the condition, or the relief which may be afforded by the operation for removal of the tubes; on neither of these points have I any experience to place before you. I trust, however, that these omissions will not prevent this side of the question from being discussed by those whose practice brings them in contact with such cases.

I have also omitted to give any clinical details, partly because they are incomplete, as in none of the cases was the presence of the condition suspected during life; partly also from the fact that nearly all the cases were complicated by some other general or uterine disorder, which would render doubtful to what degree any symptoms observed were directly due to the state of the Fallopian tubes, and also because, in most of the cases, the report of the *post-mortem* appearances clearly indicates the course of the disease, and the sequence of the several events, which, together, brought about the patient's death.

At the head of each case I have placed an abstract of the changes found in the various organs, and have given in detail a description of the condition of the parts more immediately concerned.

Case I.—*Retroflexion of the Uterus—Double Pyo-salpinx—Abscess of Left Ovary—Acute Peritonitis.*

Hannah L., aged 29.—There was a large quantity of pus in the pelvic cavity, filling up the posterior *cul de sac*. The pus appeared to ooze from an abscess connected with the left ovary; this was really the dilated end of the left Fallopian tube, which had ruptured into the general cavity of the peritonæum. Both Fallopian tubes were much dilated, and contained pus. The right ovary was twice the normal size, and very vascular. The uterus was bulky, its lining membrane vascular. There were no old adhesions about it. Its posterior wall was deeply grooved, the result of the retroflexion. *Remarks*—In this case the pyo-salpinx appeared to have resulted indirectly from the condition of retroflexion of the uterus.

Case II.—*Hypertrophic Cirrhosis of the Liver—Fibro-myoma of Uterus—Double Hydro-salpinx—Jaundice—Ascites.*

Eliza M., aged 37.—The uterus was large, the cervix sharing in the increased size. A fibroid tumour, the size and shape of an unshelled walnut, was situated beneath the mucous membrane of the posterior wall of the fundus. The uterine mucous membrane was congested. The orifices of the Fallopian tubes were obliterated at both ends, and the tubes considerably dilated. They contained a clear brown fluid.

Case III.—*Fibroid Tumour of the Uterus—Double Pyo-salpinx—Abscesses in Left Ovary—Peritonitis—Pyelitis.*

Elizabeth B., aged 32.—The pelvis was almost filled by a fibroid tumour six inches by three inches, growing from within the right wall of the uterus; the latter had been displaced to the left of the middle line and dragged upwards. Recent inflammatory adhesions bound the structures in the broad ligament to the neighbouring parts on either side. Both Fallopian tubes were dilated to a moderate degree and filled with pus. There were several abscesses containing pus in the left ovary, the right was healthy. *Remarks.*—In these two cases the condition of the tubes was clearly due indirectly to the presence of the fibroid tumour of the uterus.

Case IV.—*Cancer of the Uterus, Vagina, Rectum, and Bladder—Cystitis—Double Hydro-nephrosis—Fibroid Tumour of Uterus—Double Pyo-salpinx—Old Fibroid changes in Right Lung—Renal Cyst (R).*

Selina L., aged 45.—Extensive ulceration and destruction of the upper part of the vagina and lower half of the uterus. The uterus, vagina, and bladder formed a single cavity. The fundus uteri was infiltrated and contained an intramural fibroid the size of a chestnut. Each Fallopian tube was distended to the size of the little finger, and filled with creamy pus; they were adherent to the uterus and closed at both ends. There was no peritonitis. *Remarks.*—In this case, also, the presence of the fibroid tumour may have caused the inflammation of the tubes, as it was situated immediately between their orifices; but the cancer alone was quite sufficient as an exciting cause.

Case V.—*Typhoid Fever—Perforation of Ileum—Aortic, Mitral, and Tricuspid Stenosis—Emphysema—Right Femoral Epiplocele, inflamed, and incarcerated—Local acute Peritonitis—Double Pyo-salpinx.*

Priscilla L., aged 36.—Vagina normal. The uterine cavity contained a small quantity (about ʒii.) of purulent blood-stained fluid. The fundus was dilated. There was an indurated spot at the inner end of each Fallopian tube. Both tubes were dilated to the size of the ordinary calibre of the small intestine (about one inch in diameter), and were adherent to the posterior aspect of the fundus uteri. The fimbriæ were closed. The tubes contained a glairy, semi-purulent-looking fluid. The rectum was normal.

[1] Read before the Medical Society of London, April 28th, 1884.

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CASE VI.—*Chronic Interstitial Nephritis—Pericarditis Pleurisy—Œdema Glottidis—Pulmonary Œdema—Double Hydro-salpinx.*

Jane L., aged 21.—The fimbriæ of the left Fallopian tube were adherent to the ovary, and both tube and ovary were displaced, lying behind the rectum, where they were firmly held by adhesions to the peritonæum. The tube was distended with glairy, greyish-coloured fluid. The right tube was also distended and had fallen into Douglas' Fossa, its fimbriæ being adherent to the peritonæum. The uterus and vagina contained a quantity of recently effused blood.

CASE VII.—*Scurvy — Extensive Hæmorrhages in the Skin, Mucous Membranes, and various Organs — Double Pyo-salpinx.*

Kate O., aged 34.—The uterus was held in a position of ante-version by bands uniting it to the parietal peritonæum, the fundus being drawn upwards and forwards. The uterine walls were normal. The mucous membrane was injected, and the cavity contained some turbid purulent-looking fluid. The Fallopian tubes were both dilated, forming two sausage-shaped tumours at the back of the uterus, to which, and to the parietal peritonæum, both were adherent. The tubes were closed at both ends, and contained purulent fluid. The walls were thickened. *Remarks.*—In cases Nos. 5 and 7, the pyo-salpinx was the result of endo-metritis. In these cases the condition of the tubes, although a possible source of danger, in no way affected the fatal result.

CASE VIII.—*Cancer of Left Ovary—Secondary Cancer of Uterus and Peritonæum—Cystic Disease of both Ovaries—Dilatation and Elongation of the Left Fallopian Tube — Emphysema — Bronchitis — Secondary Cancerous Nodules in Right Lung.*

M. E. P., aged 54.—The pelvis was filled with a solid cancerous growth involving the left ovary; this was in size about equal to a cocoa-nut. There were also two cysts, one attached to the new growth and one springing from the right ovary, each of these was about equal in size to an orange, and contained clear brown-coloured fluid. The vagina and uterus were displaced toward the right side; the cervix uteri was destroyed by cancerous ulceration, and the upper part of the vagina showed a similar change. The growth in the ovary was adherent to and directly continuous with the cancerous growth in the uterus. The cavity of the uterus was dilated to the size of a large walnut, and was filled with a brownish mucus; the body of the uterus was not infiltrated. The growth in the ovary on section was very soft and contained several mucoid looking patches. The left Fallopian tube was stretched across the front of the growth, measuring thirteen inches in length; the tube became gradually dilated from about five inches from its origin, at the fimbrial end it was the size of a hen's egg. It contained a clear brownish-coloured fluid.

CASE IX.—*Cancer of Splenic Flexure of Colon—Peritonitis—Cancer of Right Ovary—Secondary Nodules in Liver—Double Hydro-salpinx.*

Mary Ann B., aged 43.—There was a tumour of the right ovary the size of a cricket ball, filling up pelvis and slightly adherent to the posterior wall. The uterus was small; it was displaced to the left, and tilted over in the same direction. The cervical canal was dilated and the os internum closed. The left Fallopian tube was dilated to the size of a pigeon's egg; it contained black grumous-looking fluid; its inner end was closed, the fimbriæ were adherent to the parietal peritonæum. The right tube was extremely dilated and spread out upon the surface of the ovarian growth. The growth in the ovary and that in the colon appeared to be entirely distinct. *Remarks*—In these cases (Nos. 8 and 9) the hydro-salpinx was the indirect result of the malignant disease of the ovaries.

CASE X.—*Rupture of the Perinæum—Prolapse of the Uterus—Inflammation and Ulceration of the Vagina and Rectum—Right Pyo-salpinx—Suppuration in Douglas' Pouch and around the Rectum—Cysts in the Left Ovary—Acute Pyelo-nephritis with Chronic Interstitial Nephritis—Amyloid Disease of the Liver and Spleen—Septicæmia—Pneumonia—Parotid Abscess.*

Eliz. A., aged 32.—Emaciated. The perinæum had been ruptured (twelve years previously), the os uteri was situated three-quarters of an inch from the vaginal orifice. All the pelvic organs were firmly adherent to one another. The vaginal walls were inflamed and ulcerated over two areas the size of a sixpenny-piece, from the pressure of the prolapsed uterus. The os and cervix uteri were enlarged, congested, inflamed, and ulcerated on the anterior and upper aspect. The mucous membrane of the uterus was injected; the cavity contained some glairy mucus; the uterine walls thickened and indurated. There was an indurated nodule the size of a hazel nut, containing a small quantity of pus in its interior, situated at the uterine end of the left Fallopian tube, the lumen of which was obliterated. Tracing the Fallopian tube onwards, it became much dilated and sacculated. At this point its contents were of a brownish colour, and purulent in appearance. Still further onward it became dilated to the size of a Tangerine orange, and twisted up on itself. The walls in this portion were much thickened, and covered internally with a greenish-grey membrane, and the contents were purulent and fetid. This sac communicated through an opening, the size of a pea, with another and much larger irregularly-shaped abscess cavity, situated beneath the peritonæum of Douglas' pouch and around the rectum. The rectum was surrounded by the abscess cavity, through which it passed, but without communicating with it. The left ovary contained a cyst as large as a pigeon's egg, filled with clear watery fluid. The ovarian tissue was of a brownish tint, and contained some smaller cysts. The right ovary was converted into an abscess, containing about a drachm of yellow pus. *Remarks.*—In this case the sequence of events appeared to be as follows: First, rupture of the perinæum during labour, then prolapse of the uterus, endo-metritis, and closure of the uterine end of the tube. These changes were followed probably by inflammation of the lining membrane of the tube, closure of the fimbriæ, and accumulation of fluid within it. Adhesions then formed between the lower end of the tube and the peritonæum, followed by ulceration of the peritonæum at the point of adhesion, and escape of the pus into the cellular tissue behind it. As a result of these conditions, amyloid disease and septicæmia ensued.

CASE XI.—*Hypertrophy of the Uterus—Endo-metritis—Double Pyo-salpinx—Rupture of the Left Fallopian Tube—Acute Peritonitis—Cystic Disease of both Ovaries—Syphilis.*

Kate A., aged 46.—There were two pints of pus in the peritonæal cavity. The uterus was equal in size to a large orange; its walls were much thickened, measuring three-quarters to one inch on section. The os externum was closed; the cervical canal was elongated, and contained a quantity of rather fetid smelling and purulent-looking fluid. The uterine mucous membrane was acutely inflamed and covered with a layer of lymph of a greenish tint from decomposition. The openings of the tubes were closed. Both Fallopian tubes were dilated to the size of the thumb, their walls thickened, and their contents purulent and offensive. The left tube was flaccid, and

its lower end was widely opened. The right tube was intact below. Both ovaries were converted into a congeries of cysts containing clear fluid. *Remarks.*—Dr. Hall Davis, under whose care the patient was, was of opinion that the hypertrophy and inflammation of the uterus had probably followed the closure of the os externum, subsequently the tubes had become dilated and inflamed, the rupture of the left tube into the cavity of the peritonæum inducing peritonitis and death.

CASE XII.—*Removal of an Uterine Polypus—Double Pyo-salpinx—General Peritonitis—Pleurisy—Cardiac Thrombosis—End-arteritis—Infarctions in Spleen.*

Eliz. H., aged 41.—The peritonæal cavity contained a pint and a-half of pus. The structures in the pelvis were united together by recently formed adhesions. The vagina was normal. The os uteri was patent; glairy mucus was issuing from it; the cervical canal was dilated and globular, its mucus membrane vascular. From a rough surface within it, the size of a sixpence, a polypus had been recently removed. The cavity of the uterus was slightly enlarged, and contained glairy mucus. A second small vascular polypoid growth was attached close to the orifice of the left Fallopian tube. Both tubes were enormously distended, each measuring two and a-half inches in circumference. They were filled with pus, and their walls much thickened from inflammatory action on both surfaces. The tubes were firmly adherent to the uterus and surrounding structures, and were lying within a sac formed by the uterus in front and the rectum behind, closed in laterally by the pelvic walls and some peritonæal adhesions, and above by some coils of small intestine. An opening, large enough to admit the forefinger, led from this sac into the left Fallopian tube. *Remarks.*—During the operation for the removal of the polypus, the adhesions which then existed between the dilated tube and the peritonæum, the result of a previous attack of peritonitis, had evidently been torn asunder, the result being, that its contents had escaped into the peritonæal cavity, setting up peritonitis, which was the immediate cause of death.

CASE XIII.—*Cancer of the Rectum—Chronic Pleurisy and Pneumonia—Chronic Perihepatitis and Fatty Degeneration of the Liver—General Peritonitis—Peri-rectal and Peri-uterine Abscess—Double Pyo-salpinx.*

Louisa A., aged 41.—There was general peritonitis. A soft cancerous growth occupied five inches of the rectum. Around it, but not communicating with it, were several abscess sacs; in one, formed by peritonæal adhesions between the fundus uteri and the sigmoid flexure, there was a quantity of fetid pus. The upper wall of the sac had given way, allowing its contents to escape into the general cavity of the peritonæum. A second cavity surrounded the uterus, and opened into the vagina by a fistulous channel, situated behind the posterior lip of the os uteri. The uterus contained a small quantity of purulent-looking fluid. The internal orifice of each Fallopian tube was obstructed; both tubes were dilated and formed sausage-shaped tumours which surrounded the ovaries, and were firmly adherent to the posterior surface of the uterus. Both were distended with creamy pus. No distinct connection was discovered between the abscess cavity surrounding the uterus and the Fallopian tubes, or between them and the other sac described. *Remarks.*—Although no direct communication could be found between the dilated tubes and the abscess cavities, the rupture of one of which had produced peritonitis, there can be little doubt that such a connection had at some time existed, and that these were secondary to the disease of the tubes.

CASE XIV.—*Cancer of Uterus—R. Pyo-salpinx—General Peritonitis—Mitral Stenosis—Liver Fatty—Kidneys sacculated.*

Eliza A., aged 39.—The peritonæal sac contained a pint and a-half of turbid yellow pus. The membrane was everywhere acutely inflamed, the change being most marked about the pelvis. Bladder normal. The upper third of the vagina and the cervix uteri were extensively ulcerated. The body and fundus were enlarged, hard, and infiltrated with cancer near the cervix, but not elsewhere. The right Fallopian tube was distended to the size of an ordinary sausage, and contained a quantity of pus. Its walls were considerably thickened; the internal orifice was closed. At the fimbrial extremity the tube had burst into the cavity of the peritonæum. The left tube was normal. *Remarks.*—This case is interesting from the fact that, although the patient was suffering from cancer of the uterus, death was due to peritonitis, the result of the rupture of the dilated tube.

CASE XV.—*Double Pyo-salpinx communicating with Rectum (L) and Ileum (R)—Ulceration of the Rectum Endo-carditis—Amyloid Disease of Liver, Spleen, and Kidneys.*

Harriet T., aged 21.—Extreme emaciation. Some coils of ileum were adherent to the fundus uteri; there were also other peritonæal adhesions, but all of long standing. The uterus was very small, the os was slightly ulcerated, the cervical canal contained glairy mucus. The uterine ends of the tubes were occluded. Each tube was widely dilated, and its walls much thickened. On section, each was found to contain fetid fæcal material. On the left side the distal end of the tube opened into a sac, situated between it and the rectum, and communicating with the rectum through a perforation in its inner wall the size of a sixpence. On the right side the tube communicated with a coil of the ileum, which had become adherent to the right side of the tube and to the fundus uteri. The communication was through a fistulous channel, about one inch long. There were several ulcers on the verge of the anus, but none elsewhere in the intestine. *Remarks.*—The disease of the tubes was in this case undoubtedly indirectly the cause of the patient's death, by inducing amyloid disease and gradual asthenia.

The bare recital of these cases is sufficient to establish the fact, which has been doubted by many, that this condition is a very real one, and by no means free from danger. It is very probable that many cases of peritonitis which have been regarded as idiopathic, as secondary to abscess of the ovary, or pelvic cellulitis, have been really due to rupture of a Fallopian tube, distended with pus, into the general cavity of the peritonæum.

It will be seen that the state of the tubes was the immediate cause of death, in eight cases out of the fifteen; all these were cases of pyo-salpinx. In six, the affection was bilateral, in two it was limited to the right side.

Of the eleven cases of pyo-salpinx, death was due to peritonitis in seven (one of these, however, was from perforation of the intestine, in a case of enteric fever), and in one case each to septicæmia, amyloid disease, cancer of the uterus, and scurvy.

In nine cases of pyo-salpinx, and three of hydro-salpinx, there were old adhesions between the tubes and uterus, or other structures in the pelvis. In two cases of pyo-salpinx, the adhesions were recent, and in one case of hydro-salpinx there were no adhesions.

There can be no doubt that any inflammatory condition of the uterine mucous membrane, however induced, it may be by extension of a vaginitis or some affection of the os or cervix uteri, by a retroflexion, by

the presence of a fibroid tumour or polypus, or as a result of prolapse or malignant disease, may spread to the Fallopian tubes, and ultimately establish the condition of pyo-salpinx.

It is probable, also, that in some cases the primary origin of the disease may be tubercular, but of this I have not met with any instance.

In many cases I have noticed that there is an induration close to the uterine end of the tube, the lumen of which is at that point entirely obliterated.

The fimbriæ and the tubes themselves are usually adherent to the uterus or some other structure in the pelvis; in chronic cases of pyo-salpinx these adhesions are generally firm, but in the earlier stages, when an operation for the removal of the tubes is possible, these adhesions have not been found by Mr. Lawson Tait, and others who have performed such operations, to present greater difficulties in their management than those commonly found in cases of ovarian tumour. It is to be hoped that as a result of the increased attention which is now, mainly through the writings of Mr. Lawson Tait, being directed to this condition, a clearer light will be thrown upon its pathology, for this must ever remain the only sure guide to accurate diagnosis and rational treatment.

THE LOCAL DISTRIBUTION AND ÆTIOLOGY OF ERYTHEMA NODOSUM.[1]

By HENRY HANDFORD, M.D.

I WILL commence what I have to say on the subject of erythema nodosum, by describing a case that came under my notice in October, 1883; not because it contains anything new or unusual, but because it illustrates in a remarkable manner several points in connection with the *local distribution*, ætiology, prognosis and treatment, to which I wish to draw attention.

Case.—A. B., a girl, aged 17 years 11 months, was seen by me on October 30th, 1883, and was complaining of a general feeling of illness, with headache and painful swellings on both legs. I found that there were lumps, varying in size, from a pea up to nearly half a lemon, and in colour, from a bright scarlet to a dusky red, on both shins. One lump was of a very dark red, almost livid colour, rather soft, and, in fact, giving an indistinct impression of fluctuation. The node was evidently greatly inflamed by much standing and walking. All the lumps or nodes were tender on pressure, and the patient complained of a feeling of burning and itching in them. There were several small lumps, nearly circular in shape, and about equal in size to half a Barcelona nut. They were evidently in the skin—for they moved freely over the fascia—and were situated all around the patella, and the sides of the knee; but not over the patella or in the popliteal space. A few nodes were found as far as half-way up the thigh, on the front and outer aspect of the limb. There were one or two on each arm over the ulna, and a few over the triceps. There was one small node on the lobule of the left ear. There were none on the trunk, hands, feet, or ankles; *and none on the flexor surfaces of the arms or legs.*

The lumps first began to make their appearance about a week before I saw her. She was of average height, but rather thin; of fair complexion, and with a clear, transparent skin. She had never had rheumatism. She had scarlatina as a child, but no other serious illness. She was rather anæmic. Bowels regular; menses regular; tongue coated with a thin white fur. Temperature 99·4° Fah.

She was treated by rest in bed, and the application of lint dipped in boracic lotion (a cold saturated solution of boracic acid in water) to the most painful lumps:—the lint to be moistened with the lotion frequently. Internally, she took six grains of the citrate of iron and quinine in one ounce of water, thrice daily.

Next day she expressed herself as feeling much better: the tongue was clean, and the temperature normal. I ascertained that she was very subject to chilblains in winter, and had habitually cold hands and feet; and I noticed that the nails were very blue. The cardiac sounds were normal. By the end of the week she was convalescent, the nodes having disappeared, only leaving a little discolouration behind, and all pain was gone.

The local distribution of erythema nodosum is very precise. It is generally described as occurring "on the fore part of the legs, sometimes on the arms." What I wish to point out is, that on the limbs it is strictly *limited to the extensor surfaces.* It occurs occasionally on the face, and still more rarely on the trunk. And not only is it confined to the extensor surfaces, but it is practically limited in the lower extremity to the region of the tibia, the lateral surfaces of the knee, and the anterior and outer surface of the thigh in its lower half. I have not seen a node on the foot or ankle. In the upper extremity the nodes are to be met with chiefly over the ulna, almost or quite as far as the wrist. I have never seen it affect the hands or fingers. Above the elbow it extends nearly to the shoulder on the outer and posterior surfaces, chiefly, however, over the triceps. Many nodes occur close to the elbow, as in the lower extremity they cluster round the knee. The nodes near the elbow and knee are generally small. The largest and most typical ones occur about the middle of the leg over the tibia. They are less frequent on the fibular side.

Ætiology.—Beyond the fact that erythema nodosum occurs chiefly in young subjects, between the fourth and the twentieth years, is more frequent in females than in males, and generally affects feeble and anæmic individuals, little definite is known. A connection with rheumatism also seems to have been established.

The great similarity between erythema nodosum and chilblains, in almost everything except their local distribution, and the fact that chilblains sometimes slough, and that, so far as I am aware, the nodes of erythema nodosum never either suppurate or slough, points to a similarity in their ætiology.

I take it that both of them consist in a local slight inflammation, with exudation of liquor sanguinis into the cutis vera; diapedesis of white corpuscles and proliferation of connective tissue corpuscles. There is also in erythema nodosum a rupture of blood-vessels and more or less extravasation of blood, as shown by the play of colours which surround the nodes in the later stages. There are pain, heat, redness and swelling. The pain is accompanied in both by a characteristic itching and burning, and a feeling of tension. The redness is frequently somewhat dusky. They both are supposed to occur specially in persons subject to rheumatism, and in individuals with a feeble circulation and lax tissues. The cause of chilblains I conceive to be essentially *cold*, associated either with pressure impeding an already imperfect circulation, or with occasional exposure to too great artificial heat, especially immediately after exposure to cold.

The *exciting causes of erythema nodosum*, which determine its localisation, I believe to be chiefly *cold*, an *imperfect local circulation*, and slight and trivial *injuries.*

[1] Read before the Nottingham Medico-Chirurgical Society, March 28th, 1884.

These causes would explain the limitation of the nodes to the extensor surfaces.

I may mention, in passing, that chilblains also occur chiefly, I believe, on the extensor surfaces.

The extensor surfaces of the arms and legs are much more exposed to slight injuries, and much less perfectly cushioned with fat and muscles, than the flexor surfaces. It is well known what extremely slight causes produce a contusion with rupture of blood-vessels and extravasation of blood in certain individuals with specially lax tissues and delicate, friable vessels. The slightest touch almost will be followed in a few hours by the blue mark of a bruise, and the imprint of the fingers may be left by grasping the arm. Now, a node of erythema nodosum is little more than a bruise, with slight inflammatory re-action and exudation superadded.

The play of colours noticed in the progress of a node of erythema nodosum, from day to day, has long drawn attention to the resemblance to a bruise, and has caused the name "dermatitis contusiformis" to be given to it. (Neumann, Hautkrankheiten. Vierte Auflage, p. 170).

There can be no doubt that the play of colours is due to extravasation of blood, the only question remaining being whether that extravasation is the cause or the consequence of the local inflammation.

Again, in a very closely allied disease, nettle-rash, or erythema urticans, there can be no doubt that local irritation, *i.e.*, a slight local injury, can determine the site of the eruption. One has only to run the finger-nail sharply across the skin, when the wheals have all disappeared, to bring them out again in the course of a few minutes or half-an-hour, wherever the finger has irritated the skin.

The parts that I may call the seats of election of erythema nodosum, viz., the skin over the tibia and extensor surfaces of the knee and elbow, have a less perfect circulation than the skin of the rest of the limbs, for the following reasons. During a majority of the 24 hours, the knees and elbows are in a state of partial flexion. The skin over them is then stretched, the vessels slightly compressed, and the circulation not so free as when the joint is extended and the skin lax. The skin over the tibia and over the ulna appears, too, to be in a state of greater tension than the skin over the muscles; and, further, the amount of subcutaneous cellular tissue, from which the skin receives its blood supply, is much less over the tibia and ulna and on the extensor surfaces, than over the muscles and on the flexor surfaces; and hence we should expect the skin on the extensor surfaces not to be so well nourished, and not to have such an active circulation as that on the flexor surfaces.

The greater frequency of erythema nodosum on the legs than on the arms would be explained by the fact that the legs are more exposed to injuries, and to cold, and that the circulation in the legs, especially in the upright position, is much less active than in the arms. The freedom of the skin of the trunk from erythema nodosum is probably due to its free circulation and its greater warmth; the latter condition being caused by a greater amount of clothing being generally applied to it than to the legs, and by its being supplied with heat by conduction from the warmer internal organs.

The comparative freedom of the face is to be explained by its extremely active circulation.

It has been noticed that many of the nodes are oval in shape, and that their long axis corresponds with that of the limbs. This can be seen over the tibia and ulna, but seldom anywhere else. I cannot help thinking that this oval shape has been made too much of, with a view of connecting the nodes of erythema nodosum with the periosteum of the long bones over which they occur, especially in cases with a rheumatic history. This view, however, is quite untenable, for the exudation is in the cutis vera, as may be shown by the nodes being quite movable; and, moreover, the nodes often occur in parts quite distant from any periosteum.

The oval shape, with the long axis in that of the limb, I believe to be due to the fact that the skin of the limb, owing to its greater length than breadth, stretches more readily in its long axis than in its transverse.

The *prognosis* is always good. In the case I have related above, the larger node on the leg was supposed to be going to suppurate, and it looked so angry that had I not known that the nodes of erythema nodosum never (?) suppurate, I might have shared in the opinion.

As regards *treatment*, the pain and itching are readily relieved by the *horizontal position*, and by *cold wet applications:* plain lint dipped in boracic lotion (*i.e.*, a cold saturated solution of boracic acid in water), and allowed to cool the part by evaporation, being as good as anything. In the few cases where cold applications are not well borne, warm fomentations will readily give relief. Of medicines, iron is the most important, combined with quinine, arsenic, or strychnia.

THE PSYCHICAL RESEARCH SOCIETY.

By SAMUEL WILKS, M.D., F.R.S.

I SEE no prospect of any speedy solution of the questions in which the Psychical Research Society is engaged, or at least such a solution as will satisfy all minds, since the methods it employs and the sentiments it expresses about the ordinary phenomena of life are so widely different from those adopted and held by ordinary scientific men. There seems no common ground upon which those who are engaged in the discovery of the truths of Nature, and the members of this Society, can work together. Of course I cannot speak for all, but having read much of the literature of those who are called spiritualists, and of those who believe in thought-reading, clairvoyance, and kindred phenomena, I find that many of the most eminent of them do not admit the necessity of assenting to the facts which are generally supposed to be substantiated in many branches of science; they apparently ignore such ideas as laws of Nature, and seem to deny that we have any insight into cause and effect. Once having put themselves into this frame of mind, they are ready to accept the truth of any occurrence, however remarkable it may seem to those who follow the ordinary scientific methods. Thus many of the contributors to the spiritualistic magazines, when about to relate some circumstance which to the mass of mankind would be incredible, never fail to add, "scientific men declare this *must* be so, and that *cannot* be," &c., &c.

Some of the most distinguished spiritualists and believers in thought-reading express themselves much in this manner; for example, men so eminent in their respective positions as Mr. Wallace and Professor Sidgwick. The former in his work on "Miracles and Modern Spiritualism," attempts to refute Hume's well-known argument against miracles as being violations of the laws of Nature and opposed to experience, by saying, "Such a simple fact as the existence of a flying fish could never be proved if Hume's argument is a good one, for the first man who saw and described one would have the universal experience against him that fish do not fly or make any approach to flying, and his evidence being rejected, the same argument would

apply to the second and to every subsequent witness, and thus no man at the present day who has not seen a flying fish alive and actually flying ought to believe that such things exist." It seems very difficult to understand how Mr. Wallace could make use of such an obviously weak objection; one would have thought that so good a student of natural history would have believed that every part of the animal body had its uses, and that every function had its corresponding organ. Mr. Wallace surely does not mean to maintain that a fish, as usually understood, and about which he maintains that an erroneous assertion was made, really can fly; he can only mean that it would have been wrong to deny that a fish might be found with so largely developed fins as to enable it to spring from the water and for a time fly through the air. This is a totally different proposition, and in no way touches Hume's argument. But however fallacious this reasoning, the object of the illustration is clear, that we cannot speak positively of the laws of Nature; that we cannot argue from cause to effect, and *vice versâ*, but ought to be prepared to accept the truth of any occurrence which is told us, however remarkable it may at first sight seem. Mr. Wallace's argument about flying fishes would hold equally good of horses and men. I apprehend, therefore, that if he were told that a horse was seen flying through the air, his proper state of mind would not be that of incredulity, but a readiness to believe it on evidence. If he were informed that human beings had taken to flight, his attitude of mind should be the same—quite open to receive new facts, with a strong conviction that we have not arrived at that height of knowledge that we could yet assert anything about cause and effect in Nature.

If the newspaper reports are correct, Professor Sidgwick propounded exactly the same doctrines at the London Institution. I apprehend he found it also necessary to deny any order in Nature, and to assume at the very outset of his lecture that it was all a chaos before he could dwell upon the remarkable occurrences he was about to relate. In order to prepare his audience, he began by assuming the very point he wished to prove; he told them that there were no laws and no order in Nature—that after a million events of a like kind had occurred something of a totally different character might then turn up. In fact, we could predict nothing. He put a million black balls in a bag and one white one; the latter he did not draw until the whole of the others had passed. He obtained the assent of his hearers to the acknowledgment that every one would have bet upon the millionth and one ball being also black. He had then to inform them that their logic and conclusions would have been wrong, that the Ruler of the world is capricious, His acts arbitrary, He has no laws, and therefore that anything odd may turn up at any time. If the Professor made them believe that his illustration was good, he must have had an easy time of it for the rest of the evening. He might possibly have said that it were wrong to convict one man of poisoning another on any chemical evidence; for, although the analyst had in many thousand instances obtained the same reactions, it is possible that on the last occasion totally different qualities and colours in his tests might appear.

One may forgive Mr. Ruskin in the poetry of his language for declaiming against the stupidity of scientific men for supposing that the rain must always come from previously existent vapour, but it does seem very remarkable that two gentlemen who have apparently given the subject a study, should be able to suggest to their audience such a possibility as the next rainbow they see being turned upside down, and the colours of the spectrum altogether altered. The fact is that there is nothing in Nature like the Professor's illustration of the balls in a bag, and this makes it very suggestive as to the value of the researches of his Society, that he should require at the very outset of an investigation a disbelief in the order of Nature, and apparently a belief in an effect without a cause. Both Mr. Wallace and Professor Sidgwick say to scientific men, as was formerly said to Faraday, it is of no use for you to join us in our investigations until you get rid of your present beliefs and so-called scientific methods.

This is literally true, as may be seen by the mode which is recommended by believers for the investigation of spiritualistic phenomena. First of all I must speak of the well-known methods recommended to students of Nature for the discovery of truth. From Bacon to Herschel all natural philosophers have been in accord—that certain "idols" should be discarded, that all work should be done in a "siccum lumen," that the student be alone and quiet in his laboratory, with no disturbing noises about him to conflict with his operations (no street music), no one present to converse with him, that he should be most intent upon his research, not too ready to jump at conclusions, but having a hesitating and sceptical state of mind.

Now we will see what the method is which is recommended by a well-known spiritualistic leader, designating himself "M.A., Oxon," for the investigation of facts in which he is interested:—"A circle should be formed of six or eight persons, half men and half women; they should sit down in a subdued light and place their hands on the table. They must not concentrate their minds too fixedly on any expected manifestation; they must engage in cheerful conversation and avoid dispute and scepticism; music is also a great help," and so on. It is obvious that if any inquirer into the truths of Nature is impressed with the absolute necessity of following the rules enforced by Bacon and others, he is bound to discard any results obtained under such opposite conditions as those last laid down. If he did attend a *séance* he would be forced to admit that the results observed were quite untrustworthy, and thus no advance would be made in the spread of their truth.

If, therefore, the methods propounded for the investigation of these phenomena are such as those who are engaged in the study of natural events consider open to grave objections, and if, at the same time, the spiritualists deny the correctness of the conclusions which men of science arrive at in the material world, there seems no reasonable prospect of any satisfactory agreement being arrived at. The spiritualist and scientist will each have to follow his own course, each denying the other's conclusion, there being at present a great gulf between them.

Medical Times and Gazette.

SATURDAY, MAY 3, 1884.

On Wednesday afternoon the House of Commons refused, by 149 to 79 votes, to allow Dr. Cameron's Bill for the Regulation of Cremation and other modes of disposal of the dead to be read a second time. Dr. Cameron's speech in favour of the measure was very moderate in tone as well as very able, but he relied rather too much on the imperfections of the present burial laws. They are unquestionably very imperfect, and the first part of his Bill, which would provide that no body shall be buried without the production of a medical certificate of the cause of death, would be accepted as a most desirable reform. But it furnishes no argument in favour of cremation. The tone of the debate was not on the whole quite worthy of an important legislative body in the last quarter of the nineteenth century. The present Home Secretary and the Home Secretary of the last Government, both treated the question really at issue rather cavalierly; and while admitting the grave imperfections of our burial laws, the former gave no hint even that the Government have any idea of amending them. Sir Lyon Playfair was too scientific and somewhat too much of the professor to please our average legislator; and the care and intelligence with which the Bill had been read by some of the members of the House was shown by the declaration of one of them, that "the Bill was simply a measure designed to put five shillings into the pockets of the medical profession every time a person died." The subject is one that demands very full and careful discussion; but Dr. Cameron may feel well satisfied that his measure, imperfect as it is, was supported by a very respectable number of votes.

On Tuesday last Mr. Gibson gave notice in the House of Commons that on May 27th he would call the attention of the House to the state of the Indian Medical Service, and would move a resolution.

Dr. Cayley, at the Medical Society on Monday last, read notes of an interesting and unusual case of so-called ulcerative endocarditis. The disease ran its course in about eight days, supervening on old rheumatic heart disease. Dr. Heneage Gibbes had examined the organs microscopically for micrococci, and found abundant evidence of their presence. Dr. Cayley was unable to account for their mode of entrance into the body, as the man had not been subjected to any known source of contagion. He discussed the significance of micro-organisms in these cases: they must have been present within the body, but probably had only become operative when the patient's health began to give way, and his tissues were no longer able to resist their septic effects. He considered the term "ulcerative" as inappropriate for many cases, as also for his own, because there was no ulceration present. There was often difficulty in diagnosing such cases from typhoid fever, as the temperature curve much resembled that found in the latter disease. Dr. Green rather ridiculed the idea of such cases being mistaken for typhoid. He seemed to argue that the micro-organisms were the essential cause of the disease. Dr. Coupland, it will be remembered, contributed to our columns, about two years ago, some very well marked cases, with temperature curves, which he considered almost characteristic of the septic form of the disease. The subject is one of great interest to physicians, surgeons, and pathologists alike; apart from the difficulties of diagnosis, there is also the still more obscure question as to the mode of entrance into the body of the micro-organisms which add so much to the danger of the disease. How do they find entrance to the endocardium, and why, as an initial lesion, do they commence operations by attacking the vegetations found on certain diseased valves? The full significance of these germs can only be determined by carefully conducted inoculation experiments. Meanwhile, in suspected cases, in cases of old heart disease in which acute septic symptoms suddenly come on, let a wary diagnosis be given. A paper was subsequently read by Dr. Kingston Fowler on the pathology of Hydro- and Pyo-salpinx, which will be found in full in another column.

The attention of the Clinical Society, at its meeting on April 25th, was entirely occupied by surgical questions. In describing an operation performed by him for extensive malignant disease of the tongue and soft palate, Mr. Gant took occasion to review the relative merits of the various operations at present practised for removal of disease within the mouth, giving preference in almost every respect to that known as the buccal operation. A paper by Mr. G. R. Turner, on a case of Gluteal Aneurysm, operated upon by him in the Seamen's Hospital, gave rise to a discussion, in the course of which, the efficiency of Davy's rectal lever for controlling hæmorrhage, was endorsed in terms of high praise. The rarity of gluteal aneurysms, whether as the result of direct injury, or of diseased vessels, is well recognised, but Mr. Turner's case, and the experience gained in the course of the treatment which he adopted, will be a valuable guide to future action in cases of a similar kind.

Another uncommon injury, requiring special treatment, was described in a paper by Dr. Lediard, of Carlisle. Fracture of the coronoid process, accompanying dislocation of both bones of the forearm, is mentioned in many of the leading surgical text-books as an occurrence of great rarity; although from the experience of Dr. Lediard himself, and that of other surgeons who took part in the debate, it would appear to have come under observation more frequently of late years. An interesting case of recurrent thrombosis of some of the great veins of the arm, following fracture of the radius and ulna, was read by Mr. Arbuthnot Lane.

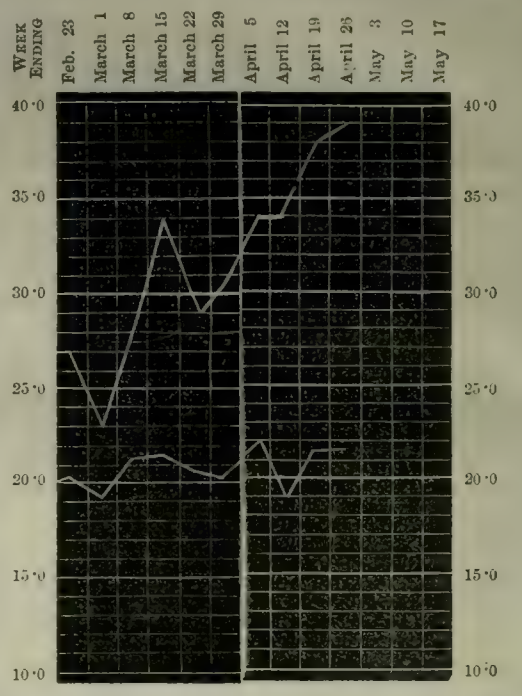
A very large vote was given at the Oxford Convocation on Tuesday last, when the new statute, for admitting women to some of the honour examinations for men, was brought forward. The triumphant

passing of this statute by a majority consisting of 464 voters (321 voting on the other side), was perhaps a little more than was sanguinely expected by the promoters of the measure. But intellectual evolution is surely showing itself even in Oxford Convocation, and there seems to be some reason to believe, when this present decision and the recent vote on the grant to the physiological laboratories are taken into consideration, that the charge of obscurantism and systematic obstruction to reasonable measures of progress will no longer fairly lie against this hitherto somewhat slavish body. The Warden of Keble has done himself and his university credit, by the influence he has exerted in contributing to the passing of the statute—an influence which, though unaided by public oratory, was perhaps no less important than the admirable and trenchant speech he delivered on the question of the physiological grant, which men of science and medicine should gratefully remember. It is not to be doubted that the Warden of Keble secured several votes which would otherwise have been given at the behest of Canon Liddon, who headed the opposition to the statute. The majority of Tuesday was also largely owing to a better organization than heretofore of the progressive party in Oxford, and the unremitting labours of the London Committee formed to protect the statute. The result of the vote is, as we have already stated, to put the women students at Oxford on a similar footing to their colleagues at Cambridge; and to give them a *testamur* of real and marketable value.

We much regret to record that Dr. Andrew Whyte Barclay died, at his residence, Whitney Wood, on the 28th inst., after a few days' illness, at the age of 66 years. Dr. Barclay, who was an able and highly cultured man, was for many years Physician to St. George's Hospital, and when in 1882 he became Consulting Physician to that charity, he retired from the active practice of his profession. He continued, however, to discharge the duties of the important post of Medical Officer of Health for Chelsea, to which he was appointed many years ago. And it seems but a few months since he was elected Treasurer of the Royal College of Physicians, adding one more to the many ways and offices in which he had for so many years rendered good and faithful service to the College. His death will be greatly regretted by a wide-spread circle of friends.

A case, which reminds one of the arrangement by which the schooling of Master Dobbin in "Vanity Fair" was paid for, came before Mr. Justice Stephen on Monday. Dr. Bryant, of Sussex Square, sued a butcher at Twyford for 228*l.*, for medical attendance on his sister, and the butcher presented a claim for meat supplied to Dr. Bryant. The plaintiff stated that the defendant had agreed to supply him with meat, to be set off against the plaintiff's professional charges, and this agreement was accepted as valid by the jury. In another respect the jury's decision was not so favourable to Dr. Bryant, for they found that three guineas was not a reasonable charge for a journey of seventeen miles, occupying four hours, and allowed only one guinea for each of such visits. Juries are, however, never very reasonable in their views about reasonable charges. Five shillings and threepence an hour is not a reasonable payment for a doctor's services.

The weekly number of deaths in London, which we are accustomed to see falling considerably short of the ten years' average, was last week only 19 below that average; while, curiously enough, the births, which



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the first four weeks of the present quarter.

of late have usually fallen short of the ten years' average by more than 100, were last week as many as nine in excess of it. Zymotic diseases still continued very fatal, the deaths from them, 300, being 64 above the average, and the zymotic rate reaching a higher point than it has yet touched this year. The small-pox epidemic still extends, and on Saturday last the number of patients lodged by the Asylums District Board reached 450. In spite of this the deaths from the disease last week only numbered 12. The deaths from whooping cough were fewer than in the previous week, but those from measles underwent an increase. The number of fatal cases of the two diseases were 81 in excess of the ten years' average. The deaths from respiratory diseases numbered 327, and were 61 below the average. We ought now to have a series of favourable returns until the diarrhœa season sets in.

Mr. Vincent Richards, we are told, has been successful in communicating cholera to animals, and has discovered "that choleraic alvine discharges contain a virulent poison, which seems to be of the nature of a chemical compound, and not of an

organism." When will the public, and indeed a large portion of the profession, acquire a little more of the true scientific spirit and practice of the inductive method? They would then see that Mr. Richards' results, should they be verified, in no way invalidate the conclusions at which Dr. Koch has arrived, and that the connection which he conceives to exist between the bacillus and the collective phenomena, known as cholera, is what Mill expresses when he describes the phenomenon which is constantly present or absent in certain groups of phenomena, agreeing or differing in nothing else, as "the effect, or the cause, or a necessary part of the cause of the similarity or diversity of the general result." In the present enquiry he would doubtless admit that the immediate cause of the symptoms may be an organic poison generated by the bacilli, and by them alone. If Mr. Richards has proved this, and, still more, if he or others can succeed in isolating it, so far from disproving the bacillar theory, they will perhaps have laid the keystone to the arch so cautiously built up by the German Commissioners.

Bacilli of other kinds secrete, generate, or in some way bring about the formation of special organic products in the cultivating fluid, just as the torula induces alcoholic fermentation in saccharine solutions. Alcohol is the immediate cause of intoxication, but the yeast plant is an equally necessary link in the chain of cause and effect. That some species, at least, of bacilli do produce effects closely analogous to those of the living ferments is clear from the phenomena of ordinary putrefaction, for which the presence of *B. subtilis* is absolutely essential; and it is remarkable, that while Buchner showed that the putrescence of a fluid was fatal to the *B. anthracis* and *fœni*, which disappeared as the *B. subtilis* multiplied, Koch has observed that putrefaction destroys the vitality of the bacillus identified by himself. If we admit the existence of a material cholera poison at all, we must allow it to be capable of self-multiplication—between this and the hypothesis of dynamic or immaterial agencies there is no *tertius locus standi*—and a chemical compound cannot be conceived of as such. A poison, capable of self-multiplication, must either be itself living, or be the product of a living and multiplying agent. Richards' discovery, if such it be, is precisely what Koch's would lead us to expect, and it is a pity that he should seek to magnify its importance by representing it as contradicting the conclusions of his forerunner. Koch very wisely deprecated the drawing of any conclusions from the negative results of his inoculation experiments, since few, if any, human infectious diseases, small-pox excepted, have been proved communicable to the lower animals; but the alleged successes of such trustworthy observers as Thiersch and Burdon Sanderson give good grounds for believing that when the necessary conditions are, whether by chance or by calculation, fulfilled, attempts at inoculating cholera may also be successful. Perhaps Koch busied himself too exclusively with the bacilli, in which case he might expect no better result than if, to revert to our analogy, he had attempted to make a man drunk on German yeast.

The Portsmouth correspondent of *The Globe* telegraphed on Tuesday, "Some sensation was caused shortly after eleven this morning, when the troopship *Crocodile*, from Bombay, with several hundred troops, arrived at Spithead, flying the yellow flag. It was known that she had cholera on board, and communication with her is now prohibited. She has anchored at Spithead to await the visit of the medical officer, who will decide whether she is to go to Motherbank and be subject to quarantine regulations." If this be correct, is it a case of importation, or is an "epidemic constitution" hovering over our shores?

Theophilus Taylor, a well-known West-End practitioner, died suddenly last week at the age of 60. Born and bred in a cathedral city, he received his medical education at University College, and Dr. C. J. B Williams mentions him in his "Memoirs" as one of his successful pupils. He was a man of kind and gentle nature, of the strictest integrity and uprightness, and of good abilities, highly esteemed by his brother practitioners, and held in affectionate regard by his patients. We are often apt to forget how much the favourable idea which, on the whole, the public has of the profession, depends on generalisations founded on such particular instances.

A Bill for the Regulation of Medical Practice in France is now under the consideration of a committee of the Chamber of Deputies, and the measure has arrived at the stage which relates to the practice of medicine in France by individuals who are only furnished with foreign diplomas. The *Union Médicale* states that for a long time past the medical profession has desired that the power of the authorities to confer a right to practise upon foreigners should be abolished, and that such right should only be obtainable by undergoing examination before a Faculty of Medicine. In this way the advent into the large cities of France of foreign medical adventurers, which is now not unfrequent, would be prevented. The *Union*, however, regrets to learn that some of the medical deputies are not favourable to this course, and are using their influence with the Minister of Foreign Affairs to induce him to enter into negotiations with the various foreign governments in order to obtain a reciprocity of practice in favour of Frenchmen in other countries and of the natives of such countries in France. The writer looks with dread upon the idea of the diplomas which are manufactured in America or in Europe (especially in *outre Rhin*) obtaining currency in France, and can only conjecture that such a project must be favoured by those who, fearing themselves to become future victims of civil discords, or *coups d'état*, are anxious to secure to themselves the power of practising elsewhere than in their own country. It is to be hoped, he adds, in the name of patriotism, justice, and the interest of the country at large, that such attempts will not get beyond the lobbies in which they are hatched; and that a measure which contains some needed items of reform will not be sacrificed to personal interest.

At a time when the British Government is proposing to introduce a liberal reciprocity scheme, it is disappointing to find our neighbours clamouring for protection. One would have expected that France, at least, with its highly educated practitioners, would have been able to regard with equanimity a free trade in diplomas, secured from abuse by reciprocity. If the measure demanded by the *Union Médicale* were passed and strictly carried out, it would bear especially hard on English practitioners, who may wish in future to practise amongst their countrymen in the southern health resorts. One advantage, however, may result from the prospect of such legislation. It will be a caution to those who are grumbling at our own reciprocity proposals, and endeavouring to raise the trades-union spirit against them.

This being the twenty-fifth year since its foundation, the French Medical Association recently held its jubilee meeting, under the genial presidency of M. Henri Roger. It does not concern itself with medical science, and at its meetings enters into no discussions on the subject, but confines its attention to benevolent objects regarding the profession, and to the support of the rights and interests not only of its own members but of the medical profession at large, being always ready to tender counsel and aid when these are endangered. Consisting of several thousand members, distributed among local societies throughout France, and united for action in the central society in Paris, it now constitutes a powerful organisation. It is also prosperous in its pecuniary resources, being in the possession of 1,863,000 francs (828,655 francs of which constitutes its pension fund), and counting an increase of 110,000 francs upon the preceding year. During the year which has just closed, 80,000 francs were distributed among pensioners, their widows and children, or bestowed on necessitous strangers.

The *Alliance Française*, of whose formation we gave some account several weeks back, has now issued its programme, and having formed its organizing committee, only awaits a sufficient number of subscribers to commence vigorous operations. It has fixed six francs as the minimum subscription, in order that no well-wisher of the project may be deterred on the ground of expense. And this project is a very up-hill one, and will want a good deal of money to set it afloat. It aims at no less than arresting the decline of the propagation of the French language, and the only means it can suggest is the establishment of schools and normal schools, wherever French influence extends in the colonies or foreign possessions. It proposes to commence operations in the Basin of the Mediterranean, where the possession of Algeria, the suzerainty of Tunis, and the traditional French influence throughout the Levant are supposed to furnish a promising field for the contemplated propagation of the language.

Professor Alphonse Milne Edwards laid before the *Académie des Sciences*, at its last meeting, a photograph of the young gorilla which has just died at the Jardin des Plantes. This little animal was the first representative of the genus gorilla that had ever been seen alive in Paris, this variety of anthropoid ape having been hitherto known only from descriptions of travellers and from the anatomical remains of individuals killed by the natives. Professor Milne Edwards gave an account of the habits of the gorilla, and of its savage untamable disposition, which, up to the present time, has rendered its education impossible. The intelligence of this ape, the largest and most formidable of all known species, is very far below that of other anthropoids, such as the chimpanzee or the gibbon.

Dr. Bertillon, in his weekly report on the mortality of Paris (*Union Médicale*, April 22nd) observes that a service which has been established there is calculated to be of the highest utility if the public were made better acquainted with its existence. Any person, the subject of an epidemic, contagious, or parasitic disease, may be transported gratuitously to a hospital by application to any police-station. The request is immediately telegraphed to the central service, and a vehicle is dispatched at once, the horses being kept ready harnessed. The carriages so used are constructed especially for the sick, and are thoroughly disinfected and warmed, and a relative is allowed to accompany the patient. It is much to be regretted that these arrangements, so well calculated to be of use to the sick poor, are not better known. A great number of such patients are at present transported in the public conveyances, causing a very inconvenient demand on their scanty means, and endangering the public health.

The discovery of micrococci in the sputa and tissues, in cases of acute pneumonia, has had the not unnatural effect of awakening the dormant controversy as to the infectious nature of the disease itself. The peculiarly sudden onset, the localisation of the principal lesion, the course and decline of the fever within definite limits, have always inclined the clinical observer to regard the whole process as analogous to that of some of the specific fevers. The effects of chill, however, have hitherto been credited with a large share in the causation of the malady, and especially in the persons of otherwise healthy and robust patients. A paper by Dr. Jürgensen of Tübingen, read last week at the Medical Congress in Berlin, attacks these latter points in the ætiology of pneumonia, with the aid of convincing statistics, and, following lines of investigation similar to those employed in the study of typhoid fever, goes far to prove that meteorological conditions, and especially degrees of dampness, exercise a powerful influence on the frequency and severity of the disease. Facts as to absolute contagion are wanting, but sufficient evidence has now been adduced to warrant the treatment of acute pneumonia as a specific fever, and the adoption of prophylactic measures in any locality where it may be prevalent.

A practical demonstration in support of his views on cerebral localisation, was presented to the same Congress by Professor Goltz, of Strasburg. A dog, from whose brain he had removed a considerable por-

tion of the cortex, assumed to contain centres for controlling certain movements, gave lively evidence that its powers of movement and sensation continued unimpaired, and that sufficient intelligence remained to enable it to resent effectually any interference with its person, or its freedom of action at meal-times. The damaged brain was subsequently examined, and it was found that by far the greater part of the so-called motor area had been destroyed. It will be remembered that a similar case was exhibited by Professor Goltz at the International Congress of 1881.

The return of the German Cholera Commission, already the subject of frequent telegraphic communications to the daily papers, appears likely to be a veritable triumphal march to the capital of the German empire. Preparations are being made in Vienna, as we announced some weeks ago, to receive Dr. Koch and his fellow workers with ceremony befitting the occasion, enlivened by the hospitality for which that festive city is rapidly becoming famous. The final reception in Berlin will take place under the auspices of a Committee, which includes among its members an array of names that will raise the event to the highest rank of importance amongst the numerous medical gatherings of the year.

The *Wiener Medicinische Wochenschrift* for March draws attention to the fact that not less than five petitions, most of them from Prussian doctors, are now before the Vienna Doctoren-Collegium, asking for "nostrifications," enabling them to teach and practise in Austria; and these are only examples of numerous similar requests preferred at Prague and Pesth, and that from men who have acquired a good name as scientific workers. Among those now applying at Vienna are Professor Eulenberg of Berlin, Professor Cöhn, the well-known Breslau oculist, and two Prague Privat-Docenten. The application of Professor Eulenberg excited a warm discussion in the Collegium. He expressed his desire to become a Docent, and to practise in Vienna, in which city also he could better prepare a new edition of his *Encyclopädie*. Professors Billroth and Stricker were of opinion that facilities should be given in compliance with the request; but Professor Brücke, observing that reciprocity in this respect is at present impossible in Germany, proposed and carried a resolution, that foreign practitioners should not receive "nostrifications" until the international conditions upon which these should be granted had been arranged, adding the wish of the Collegium that the same rule should be adopted by the other Austrian Universities. The statement that an agreement between the Austro-Hungarian and the German Governments had been recently agreed to permitting reciprocal practice by doctors on the frontiers, did not prevent the resolution being agreed to.

We wonder whether our readers have ever heard of the Monster Medical Book Club which has been organised by Johannes Alt, a Frankfort bookseller. In comparison with it, with its four hundred subscribers scattered over Germany, Austria, Hungary, Holland, and Belgium, and its circulating list of eighty-six periodicals in German, French and English, our small local book clubs sink into insignificance. Each journal may be kept a fortnight, and the subscription for the half-year amounts to a little over a twentieth of the value of the books chosen for reading. Thus, if the subscriber puts his name down for journals which together cost ten pounds a year, his half-yearly subscription will be thirteen shillings—the rate of subscription being somewhat reduced on his taking in a larger number, or a more expensive series of journals. Of the eighty-six journals on the list, as many as sixty-nine are in the German language; and of these, twenty-nine are classed under the head of General Medicine. Of English journals the list contains the *Lancet*, *British Medical Journal*, the *Medical Times*, *Brain*, and the *Sanitary Record*, and an equal number of American periodicals. On the whole, the prospectus of the club gives one quite new ideas of the literary activity of Germany, both as to writers and readers, and it is to be feared that the conditions in this country would not be favourable to an institution on a similar scale.

Dr. A. M. Hutchin, of Brooklyn, at the conclusion of an address on the "Reciprocal attitude of the Medical Profession and the Community," delivered before the New York State Medical Society, remarks that—"The community may suffer seriously by its patronage of nostrums and exclusiveness, but the community undergoes greater peril, and the *esprit de corps* of the medical profession is outraged infinitely more, by the incompetency to which it has given its diploma, and by the dishonesty and trickery in its ranks, which it sees but cannot control." Such wholesome and outspoken truth rarely reaches the profession. The Scylla and Charybdis endangering the work of consultants, are the fear of not acting in the best interests of the patient, and the dread of holding up a weak brother to something akin to distrust, if not scorn. The College of Physicians directs that when "any difference of opinion" arises, the "greatest moderation and forbearance" shall be observed, and yet we hear that "doctors differ," and Dr. Hutchins tells us pretty clearly the reason why.

Professor Goodell, of Philadelphia, publishes in the *Medical News* for February 16th a paper which he read at the Obstetrical Society of that city, entitled "A year's work in Ovariotomy." During 1883, he performed 25 completed ovariotomies which were attended by seven deaths; of these, four were performed in his private hospital, with one death, caused by the bursting of a pelvic abscess into the bladder. There were eleven cases operated upon in the hospital of the University of Pennsylvania, with only one death, and that from "hospitalism." The remaining ten were operated upon in their own homes, with five deaths. "I did not see again but one of these after the operation," Professor Goodell observes, "and she died in eight hours from shock. I am always sorry not to have the subsequent management of my ovariotomy patients, but this is not always possible. Our country women are very averse, not only to being operated upon, but also to being operated upon away from home. Hence their unwillingness to go to hospitals, and their proneness to delay matters

until they have become too weak to travel. Again, three of the seven fatal cases were at the time of the operation very ill from septic fever, caused by purulent cysts. In two, the cyst-walls had broken down from previous tappings, and this is another fault of our women, who insist on being tapped, and put off the operation until the cyst becomes very large or has contracted adhesions. Thus out of the 25 cases, there were only eight without adhesions. While my statistics do not make so good a show as those of British ovariotomists, there is this to be said in their favour—that I have never refused to operate on a woman however slim her chance of recovery."

A CHEERFUL practice, says an American journal, is undermining the cemeteries of San Francisco. The price of cadavers having advanced steadily for four years, the medical colleges found a scarcity of subjects. The professors, therefore, clubbed together, and hired a venal sexton to make a midnight raid upon the graveyards. Things ran smoothly until lately, when an able-bodied savant was buried. A burst of thunder startled the citizens the following night. There was a patter of buttons and coffin-nails upon roofs far and wide, and the sexton's wife awoke next morning to find herself a widow. It seems that the savant, a doctor himself, had directed a quantity of dynamite and fulminate of silver to be interred with him, and the unsuspecting caterer of the college was thus entrapped. The simple ingenuity and effectiveness of the invention seems to have tickled the San Franciscans, and the cemeteries are now being honeycombed with torpedoes and blasting powder, fuses, and percussion caps, to such an extent that the science of anatomy is practically brought to an end.

THE duty of Medical Officer of Health to the Port Sanitary Authority of the Second City in the United Kingdom, involves an amount of responsibility which may readily be imagined. In his summary for the past year, Dr. Stopford Taylor shows that 21,452 vessels were entered at Liverpool during 1883, and out of this number 46 were found either to have at the time of inspection, or to have had previously, cases of zymotic disease on board. The outbreak of cholera in Egypt seriously increased Dr. Taylor's work, since no less than three lines of steamers ply from Liverpool to India *viâ* the Suez Canal, the vessels for the most part carrying Lascar crews, it was only natural, therefore, that great anxiety should be felt, lest cholera should be introduced into this country by any of these vessels; singularly enough, during the whole of the year no case of infectious disease was either reported or found to have occurred on board any of them.

THE number of emigrants leaving the Port of Liverpool during 1883, was 45,671 fewer than in the previous year, the decrease being principally in those arriving for embarkation from foreign countries. The necessity for a strict medical examination of all emigrants arriving in this country to be trans-shipped, is instanced in Dr. Taylor's report, by the following circumstance: In the month of June, four emigrants from Scandinavia, a father and three sons, arrived at Liverpool, and went to the Alexandra Dock to embark on board a steam-ship on the point of sailing, the three boys were all found to be suffering from small-pox, and the whole party had to be removed to hospital. From observations recorded in this report it would appear that the condition of French, Spanish, Italian, Russian, and Greek vessels might be greatly improved; whilst that of German, Danish, Belgian, Dutch, Norwegian, and Swedish is satisfactory.

IT is claimed for the town of Hastings that this famous health-resort obtains even more than its fair share of sunshine. Mr. C. K. Shaw, the Medical Officer of Health for the Borough, in his annual report for the past year, states that when compared with all other British meteorological stations possessing sunshine recorders, Hastings was found to have been visited, during 1883, with the greatest amount of bright sunshine, more particularly during the winter months. This fact may, or may not, account for the lowness of the death-rate, which was but 15·85 per 1,000, or, deducting the deaths of visitors and non-residents (numbering 97), about 14·5 only. The deaths referred to the zymotic class of diseases were 35, or 55 less than last year, and 21·33 below the annual average. With the view of retaining, if possible, this sanitary reputation, Mr. Shaw suggests the erection of "destructors," to get rid of the dry refuse of the town, and the establishment of a public "abattoir," to do away with some of the evils of private slaughter-houses.

THE Government of New South Wales has sent Mr. Willows, its official veterinary surgeon, on a mission to Tasmania, to enquire into the alleged prevalence of tuberculosis among rabbits, at a station in the colony. He reports that he found that genuine tuberculosis was present in 37 out of 50 rabbits which were caught. This mission is connected with an enquiry, now being made in New South Wales, as to whether tuberculosis might not be propagated amongst the rabbits which infest the colony, and thus diminish their numbers, without danger to other animals or to human beings. The question is a very difficult one, and definite conclusions are not likely to be very soon arrived at. It is said that in some parts of New Zealand, in which rabbits have been excessively prevalent, large numbers are dying of tuberculosis. It is possible, by the spread of this disease, that some relief may, in time, be got from the rabbit-plague, but what may be the associated results it is impossible to foresee.

Now that domestic sanitation is becoming generally recognised as a something, the importance of which cannot be gainsayed, the appearance of a little tract, entitled "Hints on Sanitary Law," by Mr. G. F. Chambers, published under the auspices of the National Health Society, is especially appropriate. In a very small compass it gives the pith of, and references to, the Acts of Parliament relating to such subjects as the adulteration of food, bake-houses, baths and wash-houses, unwholesome food, common lodging-houses, nuisances, offensive trades and manufactures, over-

crowding, scavenging, sewers and drains, and such like. In an appendix is given a list of medical officers of health for the various districts in the metropolis. The National Health Society have done the public a good turn in issuing this little work.

Lord Carlingford will take the chair at the St. Mary's Hospital Festival Dinner, which will be held at Freemasons' Tavern on Wednesday next. The opening of the new wing by H.R.H. the Princess Louise, which was to have taken place on the preceding day, has been put off till the beginning of July, in consequence of the Duke of Albany's death.

The manifold reports of the manifold State Boards of Health in the United States are curious documents. One from Maryland is before us. The objects of the Maryland State Board are set forth under sixteen heads, and embrace pretty well everything—enumeration of the population, organisations of local boards, delivering lectures on hygiene, "stamping out" of small-pox, the convening of sanitary conventions, and divers other things, among which we must not omit the preparation, printing, and distribution of forty or fifty thousand circulars, on such subjects as, How to rescue persons supposed to be drowned—How to prevent the spread of scarlet fever, of diphtheria, of small-pox — How to disinfect—How to manage infants—How to manage children that are older ; and how to manage a great many other things. Whether the multifarious objects of the Board are carried very much farther than the preparing, loading, and discharging of its mitrailleuse of sanitary tracts, is not sufficiently clear from the pages of the bulky report. Dr. C. W. Chancellor prefaces the volume with a tedious discourse, full of undigested morsels, and swollen with flatus. Some statistical information has been obtained by sending by post circulars to various people. Whatever value it might have, if complete, is marred by the natural reluctance of busy men to fill up, without remuneration, many columns of facts and figures. A clerk of one the County Commissioners indeed, in answer to Dr. Chancellor, requires first ten dollars in advance, and the doctor expresses his wrath at the demand by italicising the sentence.

The greater part of the volume is composed of some nineteen papers read at the Baltimore Sanitary Convention, 1883, and is of some interest in a psychological point of view, for a perusal of these papers will convince any one that it is really possible for a considerable number of nineteenth-century English-speaking scientists to meet and talk for days together without discovering a new fact, or even a pleasant and agreeable way of stating old ones. Nevertheless, there is one thing in the report of great and abiding value, that is, mortality statistics of the city of Baltimore, in which the deaths from small-pox and also the deaths from all causes of the white and coloured races have been returned separately. Baltimore contains 59,620 coloured people and 348,900 whites ; the death-rate of the white in 1882 was 19·7 per 1,000, of the coloured 34 per 1,000 ; the number of deaths from small-pox of the white were 466, of the coloured 85 ; that is, the variola death-rate of the white was 1·3, of the coloured 1·4 per 1,000. The larger death-rate of the coloured may mean simply a high birth-rate, and it is a pity that only the birth-rate of the whole is given, but as that is just under 20 per 1,000 the explanation is improbable. Is that same mysterious and fatal influence that exterminated the Tasmanians, that is slowly but surely destroying the New Zealander, and that has followed the steps of the white man in all his migrations, still at work? The effects of contact between superior and inferior races, and the modification of disease by heredity, is a problem of the highest human interest. Our transatlantic cousins have the most ample facilities for collecting materials for the elucidation of these questions among the Indians and their descendants, and we hope their super-abundant energies will be applied to this rich and almost untouched field.

THE ASSOCIATION JOURNAL AND MEDICAL BULLETINS.

Last week's *British Medical Journal* contains as neat a piece of word-fence as one often meets with. It is hidden away in the smallest print in a little-read portion of the paper, but it involves a question as important to the dignity of the profession as many that are deemed worthy of more impressive type and phraseology. Last November, at the very time when the *Medical Times* was laying it down as a principle that it is unbecoming in a professional journal to publish the cases of sick or dead personages, Sir William Jenner, and seventeen of the most distinguished physicians and surgeons in this country, addressed a letter to the Council of the British Medical Association, calling attention to "the impropriety of violating the confidences of the sick-room, by publishing in the journal of the association the details of the illness of a patient." This memorial was considered by the Council in January last, and a reply was sent, accompanied by a memorandum on the subject by the Editor of the Journal, which is perhaps the cleverest thing that has ever proceeded from his adroit pen. "I have never published anything," he replies in effect, "but what has been furnished by the medical attendants in charge, who in numerous instances have been your own distinguished selves. The public and the profession are often very deeply interested in the progress of public persons of eminence during periods of anxious illness, which interest I have done my best to gratify ; but if you will get the Colleges to regulate the limits within which such information may be supplied by their Fellows to the medical journals for publication—for I still, in spite of what you say, adhere to my belief that some such information ought to be published—I will do my best to exercise a more rigid censorship." To that memorandum, it is not surprising to hear, no reply or acknowledgment has been received.

We can well understand why, in spite of the eminence of the memorialists, the Editor of the Journal was unable to keep a slight hint of scorn out of his reply

In a position of unexampled difficulty, he has achieved a most remarkable success, and he has a right to feel some confidence in his own judgment. The success is apparent to all, but the difficulties are not so easily estimated, least of all by the learned and honourable physicians, who have had no experience of commercial undertakings. The Editor of a periodical like the *British Medical Journal* has to retain the confidence and friendship of the chiefs of the association, to propitiate and, if need be, educate his publishing committee, to keep the body and tail of the profession interested without alienating its head, to satisfy swarms of discontented letter-writers, and, last but not least important, to keep together and extend his *clientèle* of advertisers. Firmly seated in the counties, he may be excused for thinking this dictation of London physicians a little unnecessary. If the readers down in Yorkshire or Dorset like to hear how much albumen Lord A's urine contained, and what was the weight of the Bishop of Grandchester's spleen, it is his business as a journalist to gratify them. Journals conducted on other lines have not been a success. Then these interesting details from the sick-room are sure to be quoted by the dailies, a point to which much importance has always been attached by medical editors. We have never ourselves been quite able to see why ; still, on such a point, the decision of a born journalist, like the Editor of the *British Medical Journal*, must be considered final. If, with his record of success, he still holds that it is necessary in the interests of his journal to publish some information, however limited, of the illnesses of great people, it must be conceded him—or else the whole constitution of the journal must be radically reformed, with results which one cannot foresee, but only forebode.

Our own opinion and policy on the question at issue are so well known, that it is hardly necessary to say that we most emphatically approve the protest of the memorialists. We even wish they had gone further and discountenanced the equally pernicious practice of publishing signed bulletins in the lay press. To our mind the violation of the sanctity of the sick-chamber—undesirable as it is—is not so great a matter for condemnation, as the veiled system of advertisement by means of signed bulletins. The worst feature of the publication of medical details of the illnesses of personages in the medical journals, is that they are sure to be transferred to the pages of the daily press, and we think that half the evil complained of would have been removed if the Council of the Association could have been induced to instruct the Editor of the Journal not to communicate such details to the lay papers. We trust that the matter will not be allowed to remain where it is, but that the President of the College of Physicians, who is currently reported to be deeply interested in the question at issue, will appeal for the united support of the profession. By instructing his scattered colleagues in the principle involved and enlisting their sympathy, he may possibly succeed in maintaining the honour and dignity of the profession, without impairing the success of the Association. On the other hand it is quite likely that he may find that the Editor of the *British Medical Journal* understands the rank and file of the profession better than himself. At any rate, the Council of the Association are quite justified in believing so, until the results of a poll of the profession on the subject have convinced them of the opposite. For our own part, we have the fullest confidence in the good sense and right feeling of the profession, and firmly believe that a journal conducted according to the strictest principles of propriety that could be laid down by the Censors of the College of Physicians, would be well supported, provided it were not too dull and unreadable. But that is only our individual opinion, the correctness of which has yet to be demonstrated.

SUPERINTENDENTS OF ASYLUMS AND THEIR WORK.

In another column we publish some observations, which we most heartily endorse, upon the management of lunatic asylums. Attention has on more than one occasion been drawn in these columns to the insignificant amount of scientific work that is done in our asylums, an amount which, taking into consideration the exceptional opportunities that exist in such institutions, constitutes a standing reproach to the profession. The author of the paper that we have in part reproduced lays his finger with the greatest precision upon blots that exist no less on this than on the other side of the Atlantic, and indicates with perfect accuracy some of their causes. But there is another cause that he has not touched upon, and the evil will not be remedied nor the reproach removed until this cause has ceased to operate. The matter to which we refer is of so delicate a nature that it has never been openly referred to, but the time has come for a little plain speaking, for we may be sure that if we do not ourselves amend our ways the power will be taken out of our hands. Reform is always more gentle and more acceptable when it comes from within than when it comes from without, and we, or those for whom we are speaking, the medical superintendents of asylums, may be quite sure that unless they mend their ways, and that right soon, a worse thing will ere long befall them. The coming Local Government Bill should serve to them as a pregnant warning. Committees composed of representatives of the ratepayers will closely scrutinize their past action, and, if it should be found wanting, they may depend upon it that they will be displaced in favour of others with a deeper sense of their responsibilities.

The charge that we are about to make does not apply to all superintendents. There are brilliant and most praiseworthy exceptions ; but it does apply to many. It is this : that they choose as their assistant medical officers not the best candidates ; not those with the best diplomas and testimonials ; not those best qualified for the work ; not those of the best standing in the profession, nor those of the greatest intelligence ; but those who are most likely to make agreeable colleagues, and least likely to provoke comparisons by doing original and independent work. It may be said that the appointment is made by the Committee and not by the medical superintendent ; but this is trifling with the question. In a few asylums the Committees do, it is

true, take the matter out of the hands of the superintendent, and appoint the best man they can find; but in the majority of cases the superintendent virtually makes the appointment. It is made upon his recommendation and nomination; and in the majority of cases the best man is not appointed. In many such cases the man appointed is chosen for his weak and pliable nature. When it is remembered that medical superintendents are chosen exclusively, and very properly so, from assistant medical officers, it will be seen that the course that we have described is calculated directly and very seriously to deteriorate the race of medical superintendents. It acts as an artificial selection and tends to secure the survival of the most unfit. Such a course is thoroughly and radically bad. It is unworthy of members of a great profession. It is unjust to the Committee who manage the asylum; it is unjust to the ratepayers who are taxed for its support; it is unjust to the medical profession; and it is most unjust to the patients who are the chief sufferers by it, who have no voice to complain, and whom the superintendent is especially bound to consider and to protect.

One practical point mentioned by Dr. Ayres is of great importance. It is obvious to every man who has ever worked in a hospital, that the medical superintendent and his assistant should visit the wards together. Not necessarily always, but certainly on frequent occasions they should visit the wards together; should together examine the patients, and determine the treatment. Is this the rule? No, it is the very rare exception. There are many asylums in which the superintendent and his assistant are never seen in the wards together; and there are some, with shame we say it, in which the treatment ordered by the one is habitually reversed at the next visit of the other. We do not ignore the difficulties under which medical superintendents are placed. They have first of all to satisfy their Committees; and the Committees, they say, do not care for scientific work. The Committees wish to see an asylum well administered, to see clean floors, neat dresses, well-kept lawns, efficient drainage, adequate water-supply, good laundry arrangements, stores equal to sample; and they are right. But it is not true that all Committees do not care for scientific work. Some, to our knowledge, deplore its absence in the asylums under their control; and where indifference exists, it should be combatted. The superintendent has an excellent opportunity in his annual report to create a sound and healthy public opinion in this matter, yet how many do so? We have before us the reports of many of our asylums for the year 1883, and in them we find abundant references to the waterclosets, to the cow-houses and piggeries, to concerts and fancy balls, but reference to the scientific treatment of insanity is in all, save a very few instances, conspicuous by its absence. We do not deny the importance of efficient administration and of occasional amusements. We do not say that superintendents should neglect these things; but we do maintain, most strenuously, that those who leave science out of the question, when it ought to be the mainspring of their life and work, are false to their trust as members of a learned profession.

THE VACANT CORONERSHIP.

The Lord Mayor of London and his Common Council will very shortly have to choose among the candidates for the office of coroner vacant by the death of Mr. Payne. His late deputy, Mr. Langham, also a member of the legal profession, has already been appointed by the Crown to the coronership of the Duchy of Lancaster, which was held together with that of the City by Mr. Payne, and this fact, together with his long experience of office, will doubtless conduce greatly to his chances of success in his candidature for the City Coronership As usual, with the want of combined action so characteristic of our profession, six or seven medical men have announced their intention of contesting the vacancy, but we trust that public spirit will prevail over self-interest, and induce them to retire in favour of the one, Dr. Wynn Westcott, who, in addition to high professional qualifications, has alone had practical experience in his capacity of deputy coroner for Central Middlesex.

The office of coroner is one of the most curious survivals of our ancient constitutional system, being, according to Blackstone, of equal antiquity with that of sheriff, but it has in the course of centuries undergone great changes, without having kept pace with the progress of medical science. By the statute of Westminster I., it was enacted that "none but lawful and discrete knights" should be chosen, and in the 25th of Edward III. a man was removed from the office, because he was only a merchant. By the same statute the coroner was prohibited from taking fee or reward under pain of a great forfeiture to the Crown, doubtless with a view to maintaining the purity of his judicial functions, but fees were allowed and regulated as early as 1488, by the statute of 3 Hen. VII., c. 1, of which Sir Edward Coke bitterly complained.

He is still elected by the freeholders of the county for which he is appointed, as were formerly the sheriff, justices of the peace, and other officers who are legally supposed to stand between the prerogative and the subject in the execution of the laws, and his duties consist in enquiring, when any person is slain or dies suddenly or in prison, concerning the manner of his death, as well as in cases of wreckage and treasure trove. At present, however, coroners are in practice exclusively concerned with the investigation of the causes of sudden or suspicious deaths, and though no special qualifications are laid down, and one or two coroners are men of no particular profession, public opinion has long determined in favour of restricting the appointment to lawyers or to medical men.

There is much to be said in support of the claims of each; and in any future Act regulating or reforming the office, it is to be hoped that some means may be found of securing the special knowledge and acumen of each profession. Should the office, as we fear is too probable, be finally made over to the lawyers, it will not be enough that the coroner shall be compelled to summon any medical man who may have seen the case before or soon after death, but he ought to have an assessor sitting by his side in the person of a medical man of known scientific skill. Such, indeed, is the law in Germany, a country from which we might well

borrow many useful lessons in legislature; there the ignorant jury, who are either a farce or a hindrance to justice, are dispensed with; there a lawyer and a physician, both servants of the State, and holding the respective offices of public prosecutor and medical officer of health, alike men possessed of special knowledge and experience, on hearing of a suspicious death or one coming legally under their cognisance, proceed together to the spot, hold a court, call what witnesses they think necessary, draw up a joint report and forward it to the judge of the district or other higher court, and on this report further legal action is taken if deemed advisable. This procedure has about it such a simplicity and reason, as with our patchwork legislation and adherence to ancient usage and effete institutions, we cannot hope to attain within half-a-dozen generations. We have, too, so many lawyers and so few doctors in Parliament that the former have it all their own way.

The duty of the coroner is to find out the cause of death, and since murders are happily of comparatively rare occurrence, the question is mostly whether the death was due to disease or not, and this is not fully solved unless the actual cause of death, *i.e.*, the precise nature of the disease, be distinctly ascertained. This, even a lawyer must admit, cannot be done but by a medical man. It is not enough to know that the deceased was suffering from a disease which might at any time prove fatal, for an invalid is as likely as a healthy man to be the victim of foul play, and perhaps more likely to put an end to his own miserable existence than one in the full enjoyment of life.

In support of the claims of the lawyers, it is urged that the coroner has to sift a mass of evidence, much of it furnished by ignorant witnesses, and to separate what bears on the case from what is irrelevant, that he must know what is legal evidence, and what is not. There is a certain amount of truth in this line of reasoning, but there is also a fallacy of omission. The evidence on which his decision, in nine cases out of ten, must ultimately turn, is evidence of a special and technical nature. Let us appeal, not to analogy, but to precisely parallel instances. No lawyer, or even judge, would presume to determine the causes which led to the bursting of a boiler, the fall of an iron bridge, or a building, the bursting of a piece of ordnance, or the capsizing of a ship, without the opinion of engineers, architects, naval men, or like experts, and yet these questions do not demand a life-long education and experience, any more than it does to arrive at a sound conclusion respecting the cause of failure of the vital machinery. Even if we ignore the fact that every clinical examination involves the process of sifting and weighing the very same evidence as is adduced at an inquest, which is really a *post-mortem* enquiry, conducted under the additional difficulty of the absence of the ante-mortem observation, the question whether a medical man can easier acquire a knowledge of the broad rules of evidence as accepted in courts of law, or a lawyer make himself master of pathology, with the sciences of physiology and anatomy on which it rests, without having studied in a medical school, is one which no one, not blinded by prejudice, could have a moment's difficulty in answering. This, however, is supposing that things must remain as they are. The German practice, or some similar arrangement, removes the dilemma. We have no hesitation in saying that half the inquests held at present are horrid farces, painful to the friends of the deceased, with no advantage to the cause of justice, and that while verdicts of "visitation of God," are simply profane, those of "natural causes," when no means have been taken to show what the causes were, or even that they were natural in any other sense, than that they were not *super*-natural, are, to say the least, a waste of public money, leaving the public as wise or as ignorant as they were before.

CLINICAL PAPERS.

X.—The Law of Substitution in Epidemic Disease, as Illustrated by Pneumonia.

The familiar illustration of several persons exposed in common to some morbid influence, whether chill or malaria or sewer gas, and each of them responding after his own manner, although often quoted is, perhaps, not considered and applied as it ought to be as a law of disease applicable to communities as well as individuals, and calculated to throw light upon many obscure phenomena.

Take, for example, the class of affections caused by exposure, and conveniently grouped together as "chill diseases." Speaking generally, the respiratory mucous membranes will suffer from chill causes in an order corresponding to the degree of exposure: coryza, bronchial catarrh, bronchitis, occur respectively in a decreasing order of frequency, just as the several seats of those affections recede farther and farther from the external air. But along with this—the general liability of mankind—many special liabilities have to be taken into account, both those which concern individuals and those which concern particular seasons; so that what is recognised as the common rule may be modified or superseded by individual predisposition, or some special "influence" of the time.

It is the same with other diseases, the pythogenic or the septic. There is the ordinary and expected mode of suffering in response to each of these; and there is the extraordinary and exceptional mode. Malaria, sewer gas, septicæmia, each has its recognised disease expression. But there are other expressions than these, less common and less easy of recognition. Enteric fever or diphtheria or the prevalence of diarrhœa is supposed to get its explanation so soon as some drainage defect is discovered; but it would require far more evidence to show that pneumonia or tonsillitis was of similar origin.

And what is true of individuals is true of communities. The people from time to time respond to morbid influences in some new and unaccustomed way, and not as the books teach. The east wind of spring ceases to give "cold," and gives headache, want of appetite, and aching of the bones instead. The filth

accumulation of a crowded court fails to provoke the familiar typhoid fever, it provokes pulmonary inflammation or ordinary sore throat. The contagion of some specific fever is no longer made outwardly manifest by a skin eruption, it appears under the form of an internal inflammation, an acute pneumonia, it may be, as infectious and sometimes as virulent as small-pox.

And observe that in all these instances the same law obtains as in the case of several persons all exposed together, where, according to the common parable, one shall get pneumonia, another nephritis, a third biliary catarrh and jaundice, a fourth an ordinary cold, and the rest nothing. There is no tendency, as we might have expected, to a mingling of these several effects of the one injurious exposure. There is no individual of the company who will combine the results. He that gets the nephritis is saved the pneumonia, and he who gets the jaundice escapes coryza. The common cause acts in several different ways. It does not act, as one might suppose, *à priori* (the great bane of practical medicine), in the same sort of way throughout, only tending more to the lungs in one, more to the kidneys in another. The morbid influence spends itself in one direction.

And this, too, is true of communities as well as of a single group of persons. When, for example, the form of illness which succeeds to foul dwelling or filth accumulation is not of the usual kind we begin very properly by doubting whether the assigned cause is the true one. But, supposing the question of cause settled, what we do next is to look for some trace or other of the more familiar effects of pythogenic poisoning to assure us of the genuineness of the less familiar. To be certainly associated with unhealthy dwellings, the tonsillitis must have some diphtheritic character; the pneumonia must be of "a low asthenic type," and not the strong and frank disease which commonly goes by the name, and is thought to have nothing "enteric" or "typhoid" about it.

But Nature is not thus conservative. While we are looking for modifications she has accomplished a revolution. The modes of response to morbid influences vary indeed so widely, that if we will but look a little beyond our own narrow life time, it is difficult to comprehend, or even name, the countless forms of epidemic sickness of which history tells. But be the forms what they may, their succession represents not change merely but a series of transformations. And so it is now. The response will be either this or that, the usual one or the less usual, it will not be—or, at least, as a rule, it will not be—any sort of combination of the two.

Let me give an illustration or two. A main sewer is opened opposite a boys' school, and sewer gas is suffered to escape into the sleeping rooms that overlook it. And while the observers, who have vainly protested against this proceeding, are awaiting the consequences and looking for enteric fever or some array of gastric or intestinal symptoms, there comes instead an epidemic of veritable lobar pneumonia. Or again, some houses of a city slum are reported by the sanitary inspector. But when proof is sought of actual harm, traceable to the drain defects that have been pointed out, there is no better evidence of that kind than the fact that several of the tenants have died of acute pneumonia. Need it be said that in neither of these instances would a solitary case of pneumonia have sufficed to call attention to the actual cause of it? We have, indeed, our own pattern of pythogenic pneumonia, one which is evolved out of our own consciousness, and closely connected with diarrhœa, gastric disturbance, enteric fever, and other known effects of bad sanitation. But acute lobar pneumonia is credited with quite different associations, and, inasmuch as the houses of the poor are very commonly draughty as well as pestilential, there is little difficulty in attributing such attacks to some weather cause rather than to the breathing of poisoned air.

A word may be added upon the practical side of this subject as to its effects, especially the vexed question of prognosis in pneumonia. It is well known that in a majority of instances (the proportion is very variously estimated, it is three-quarters according to Grisolle, and nine-tenths according to Ziemssen, but certainly it is a majority) the exciting cause of pneumonia is *not* exposure. It is admitted now that some of these numerous unclaimed cases are certainly of pythogenic origin. But the admission has been long delayed, owing to a gratuitous preconception which demanded that the lung inflammation should be exhibited *along with* enteric and gastric symptoms, and not in place of them. And from not discerning the source of the disease we miss its spirit and significance. The various admonitions of practice relating to "typhoid," and "latent," and "erysipelatous," and "apex" forms of pneumonia are very fallacious guides, so far as prognosis is concerned. Pneumonia must be judged by its origin. It is good or bad according to its source; and it is because its causes are so many, and so little regarded, that its death-rate is so variable, and the issue of each individual case so doubtful. Separate from the gross total of all the pneumonias that have happened—say in London, during the last ten years—all the aged, the starved and the drunken—a pretty constant ratio from year to year—and along with these you will subtract a large proportion of the fatal cases. Separate next all the cases of pythogenic origin—a ratio that is constantly varying—and, again, you draw away a large proportion of fatal pneumonia.[1] There will be still a remnant that is left, and as yet, perhaps, not separable; the pneumonia plausibly ascribed to various nervous accidents, and having a very variable, yet certainly a high, rate of mortality. But this also removed, what remains will represent the pneumonia of the books—the pneumonia which it is so pleasant to treat and to read about, and the contemplation of which has given birth to the belief that this remarkable disease — which, in fact, comprehends under a common name the most innocent and the most destructive forms of inflammation known to us—has always and inherently a natural tendency to recover.

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[1] It is well known that a certain number of cases of pneumonia, mistaken for typhoid fever, are admitted yearly into the fever hospitals of London. The discovery of such mistakes affords no doubt, legitimately enough, that self-contentment which is proper to those who see farther than their neighbours. But, if the rate of mortality of such cases were known and their source investigated, it would probably appear that the error was not so grievous after all.

REVIEWS AND NOTICES OF BOOKS.

MEMORIALS OF AN UNQUIET LIFE.[1]

If one rises from the perusal of Dr. Williams' Memoirs with the impression that the chief characteristic of his life has been its turbulence, the author has only himself to thank for it. He has treated in such detail the half-dozen controversies in which he was engaged, that one is apt to forget the many years of quiet and honourable work which lay between them, and to think of him only as a man who had always a grievance. This is unfortunate, and will do much to impair the popularity of a book which is otherwise most interesting and instructive. That Dr. Williams, in more than one instance, met with rather unfair treatment, in respect to both his scientific and practical work, no one who has studied his book will deny; but here, too, it will probably be admitted that the blame very largely rests with himself, and that he would have found more liberal consideration at the hands of his colleagues if his own attitude had been less aggressive. It would ill become medical workers of the present day to forget or ignore the important services which Dr. Williams has rendered to clinical medicine and pathology; but a constant parade of achievements is very apt to defeat its own ends, and we do not doubt that it has done so in the present case. We must take, however, qualities with their defects, and admitting that the scientific enthusiasm and devotion which enabled Dr. Williams to rise, in spite of so many disadvantages, to such a high place in contemporary science, may have been inseparable from an undue sensitiveness to praise and blame, give him our ungrudging gratitude for what he discovered and taught.

Dr. Williams tells us that he never went to school, but was kept at home at Heytesbury, in Wiltshire, taught by his father and allowed to give full scope to his predilection for natural science, until he was old enough to enter at the Edinburgh University. There are few clever men who would not be ruined by such a prelude to active life, and it is greatly to Dr. Williams' credit that the only harm he derived from it was a certain persistence of rough corners, which a few years of public school life would in all probability have effectually rubbed down. The same defect has been noticed in other clever home-bred men. It greatly interfered, for instance, with the influence which John Stuart Mill, of whom a pleasing description is given in the present volume, would otherwise have exerted upon the actions, as distinguished from the thought, of his day. In other respects the course of education which Dr. Williams' father laid down for his promising son was eminently judicious, and far in advance of what was thought necessary by other fathers of his day. He evidently had firm faith in his son's capacity, and determined that he should enjoy the best advantages in the way of education that the world then afforded. He sent him to study medicine for four years at Edinburgh, then, in 1820, far and away the best medical school in the United Kingdom, and subsequently allowed him to spend a winter in London, and eighteen months in Paris, the wisdom of which course was fully apparent in after years. The reputation of the French school of science and medicine was then at its *acmé*. La Place, Humboldt, Cuvier, Gay-Lussac, Arago, and Ampère were amongst the immortals who met at the Academy of Sciences, whilst at the hospitals Andral, Broussais, Louis, Laennec, Esquirol, Dupuytren, Larry, Roux, and Boyer were actively engaged in those observations and researches which made the school of Paris famous throughout the world. Dr. Williams, with a happy instinct, attached himself to Laennec, and he could not have arrived at a more fortunate moment, for it was the last year of the great clinical teacher's life, when he was most matured by the latest observations and practice. Dr. Williams came back to London a practiced auscultator, with a knowledge of chest disease superior to that of any London physician then practising. Fortune had so far favoured him and he showed himself not unworthy of her gifts. There was a long struggle before him, and what London physician, however distinguished, escapes it? But with his abilities, and his start in life, ultimate success was certain.

After publishing his work on "Auscultation," Dr. Williams married and settled down in Half-Moon Street in 1830. He was soon engaged in active literary work for the "Cyclopædia of Practical Medicine," and, before many years, became entangled in his first controversy, that with Dr. Hope. In 1835 he was elected a Fellow of the Royal Society; but his paper "On Low Combustion" not having been deemed sufficiently profound for a place in the *Philosophical Transactions*, he was indisposed to look favourably on that Society, and for many years preferred to bring his best work before the British Association. In 1836 he began his career as a lecturer, and delivered two courses at the Kinnerton Street School of Anatomy, which were subsequently published in the *Medical Gazette*. The reputation thus gained was, no doubt, a main factor in procuring his election over the heads of formidable competitors to the Professorship of Medicine at University College in 1839. So far his career had been one of uncertainty and struggle, his expenses exceeding his income by an average of 600*l*. a-year; but at length his position was assured, and his further success depended only on the maintenance of his own health and strength. In 1840 he was elected to the Fellowship of the Royal College of Physicians, and the next year was chosen to deliver the Gulstonian Lectures, which were subsequently published in the *Medical Gazette*. He had been recently investigating the phenomena connected with the circulation of the blood in the capillaries, and he devoted his lectures to a consideration of the results of these observations. In 1843 he published his *magnum opus*, the once well-known "Lectures on the Principles of Medicine," which passed through three editions, and was for many years regarded as the standard work on the subject.

The years of struggle over, and the place of the leading authority in his own special branch awarded him by general consent, one might have expected that the interest of Dr. Williams' life would have been over, and that his history would thenceforward be as uneventful as that of most successful physicians. But some

[1] "Memoirs of Life and Work." By Charles J. B. Williams, M.D., F.R.S. London: Smith, Elder, and Co., 1884.

evil genius seemed to preside over his existence and never to leave it long untroubled. We cannot even enumerate all the troublous episodes which followed quickly upon each other. Into more than one he was forced by the best of motives—the desire to reform what appeared to him to be abuses—but others he might have escaped if he had been willing for a time to possess his soul in patience. We will pass lightly over these matters, with a wish that Dr. Williams had done the same. It is pleasanter to turn to the honours showered upon him by an admiring profession. In 1846 he was elected first President of the newly-formed Pathological Society, and twelve years later he received a similar honour on the foundation of the New Sydenham Society. In 1862 he was chosen to give the Lumleian Lectures, and selected for his subject "Sketches of Success and Failure in Medicine." In these lectures he especially dwelt upon the prevention of disease as being the highest grade of success to be obtained by medical science—a truth which, years before, he had been the first in this country to grasp. In 1873, Dr. Williams was chosen President of the Royal Medical and Chirurgical Society, the next year was appointed Extraordinary Physician to the Queen, and it appeared likely that he would easily attain to the highest honours of his profession. But at this juncture his health broke down, and he refused in quick succession the Senior Censorship of the College of Physicians, the office of Harveian Orator, and the offers to deliver the address on medicine at the London meeting of the British Medical Association, and to be put in nomination as representative of the London University in Parliament. Possibly, too, but for doubt as to his ability to undertake the active duties of the office, his candidature for the Presidency of the College of Physicians would have been more actively pushed by his friends, and he might have been elected in preference to Sir James Alderson. There have been few physicians who, belonging originally to no London Hospital, and with little extraneous help, could quote a similar record of distinctions.

In the few lines yet left us, we would reiterate our opinion that the book under review is, in spite of its blemishes, a singularly instructive and interesting one. Of a liberal—and in some respects a radical—tendency Dr. Williams was in many points ahead of his generation, and his remarks on matters of medical interest, even though written years ago, will secure the fullest approval of the modern reader. The book, too, is full of entertaining personal reminiscences, and scattered up and down it are many practical hints of the greatest value. There are, indeed, few men who in the retirement of their old age have retained so fresh an interest in the subject of their life work, and have kept so well abreast of advancing science as the author of these memoirs.

Measles in St. Petersburg,—*The St. Petersburger Medicinische Wochenschrift*, for April 19th, states that a very destructive epidemic of measles has been prevailing in that city. The mortality is very large (52 deaths in a population of 923,016 during the week 18–24 March), especially in the children's hospitals. The Society for the Care of Poor Children has opened a temporary measles hospital, to the erection of which Her Majesty the Empress has contributed 1,500 roubles.

ABSTRACTS AND EXTRACTS.

NEUROLOGY.

OUR ASYLUMS AND OUR INSANE.

Under this title Dr. Samuel Ayres, of Pittsburg, contributes a paper to the *American Psychological Journal*, from which we select the following extracts:—"That there is in the minds of persons competent to form an opinion on the subject much dissatisfaction with the present management of our asylums, and a growing distrust in their efficiency as places of cure for the insane, cannot be doubted. Nor is it uncommon to find those who have passed some years in these institutions as medical officers, sharing this distrust and criticising some peculiarities of the system which have given rise to it. What is the cause of this general dissatisfaction and want of confidence? Is the system defective? I shall endeavour to answer these questions as they relate to the following subjects, and will propose under each paragraph what would seem to be the remedy needed.

"I. *Superintendents.*—It matters little, I believe, how splendidly built and equipped is the asylum, how attractive and beautiful the location, how complete and systematic its organization, how perfect its arrangements for heating and ventilation, how fine its furnishings, or how faithful its board of managers, if the superintendent be not a humane and scientific physician, whose heart is in his work, and who gives his entire time to the study and treatment of his patients. If he fail in these, the inmates will be neglected, the percentage of cures will be reduced, and abuses of various kinds will be frequent; while the chief end for which the asylum is erected, viz.: the cure of the curable, and the proper care of the incurable—will be, in a great measure, defeated. There is no disguising the fact that a superintendent cannot be at the same time purveyor, farmer, florist, horticulturist, paymaster, clerk, steward, financier, board of managers, lobbyist, etc., etc.—and practising physician. It is simply preposterous, and yet it is daily attempted, to the detriment of all concerned, As matters are now conducted in many of the asylums, it would certainly appear that the growth of cabbage and currants interests this official more than morbid growths within the encephalon; that the location of a turnip or potato patch interests him more than the localization of cerebral lesions; that the ripening of a new variety of strawberries interests him more than the origin and development of delusions; that it is rather his ambition to have the asylum an extensive and well-regulated insane boarding house, than a hospital for the study, treatment, and cure of mental diseases. It is urged, however, in reply, that he need not 'fritter away his time' in the details of all departments, but simply direct their chiefs, and exercise a general supervision, while the assistant physicians are attending to the medical interests of the patients. Theoretically, this seems reasonable, but practically it results only in harm. Whenever the physician-in-chief assumes the functions that belong to an executive board, or undertakes the direction of all the affairs about an asylum, he becomes involved in endless details, his mind is engrossed in a multitude of matters, his attention is diverted from the patients, and he loses, to a great extent, medical interest in them. This is about the result of such a course, argue as you will upon it. The *remedy* is simple. Let the superintendent be a physician of high medical attainments, skilled in the practice of medicine, and then specially qualified in nervous and mental diseases. Let him devote his whole time to the care and treatment of his patients, just as the general practitioner does to his. Let him have absolutely nothing to do with the ordinary business and administrative affairs of the institution, but let these be entrusted to the proper officers, who shall report to the executive board. The minor details of management and organization, which I have not time to indicate, would then follow in their proper order.

"II. *Assistant Physicians.*—When our medical colleges shall establish chairs of nervous and mental diseases, and didactic and clinical psychiatry is the rule and not the rare exception; or when the assistant physicians to our asylums

are selected only from those who have taken a special course in insanity, then we may hope that these officers will enter upon their duties reasonably prepared. Until such a desirable state of affairs is realised, it is but just to them, and particularly to the inmates, that they receive all possible assistance from superintendents upon diagnosis, clinical history, and treatment; and that they be not left unaided in the treatment of a disease most obscure to them. As a result of their inexperience, and this neglect by superintendents, they must, though studious and closely observant, pass two or three years in experimental treatment; and, if they be not students, striving to scientifically interpret symptoms, and to intelligently treat their patients, though they pass twenty years in the specialty, their entire course will be but one of guesswork and empiricism. The most intimate professional intercourse should at all times exist between a superintendent and his medical assistants, and, accompanied by them, he should visit one department daily, and thus see all the inmates every two days, instead of every three months, as we have heard of. He could then institute such measures and treatment as are indicated, and follow them up by constant observation. The assistants should keep a daily clinical record of each case receiving medical treatment, as is done in our best general hospitals, and also note the condition of interesting chronic or incurable patients, which record may be consulted on his daily visitations by the chief officer."

"IV. *Asylum Therapeutics.*—As many of the asylums are now conducted, it is not to be wondered at that the strictly medical therapeutics of insanity is much neglected. And that a routine, both in prescribing and dispensing, prevails, which would simply amaze the active and wide-awake general practitioner. In certain forms and stages of insanity the administration of proper medicines may be attended by effects as pronounced and beneficial as in any other disease. While it is equally certain that pathological processes let alone or ignorantly attacked, generally leave their victims beyond all help. It is the duty of asylum physicians to give this subject more attention and study.

"V. *Pathological Work.*—The amount of this done in our asylums is very limited, indeed, is attempted in only a few. When we think of the vast quantity of valuable material for this study to be found in these institutions, it is a matter of profound regret that so little of it is utilized. There is no reason why the work should not be undertaken, even in a small way, in all hospitals. But the failure to do so is a natural consequence of the imperfections in the system, and the inexperience of superintendents in pathological investigation."

EFFECTS OF POLITICAL EVENTS ON THE FORMS OF INSANITY.

This was the title of the introductory lecture of Dr. Legrand du Saulle (reported in No. 13 of *Progrès Médical*) at the Salpetrière this year, in which he pointed out that war and rioting only induce insanity in the predisposed. There was no increase in the number of the insane during the troubles that prevailed from 1847 to 1854, and it was the same during the events of 1870 and 1871. In his opinion, speculation, the thirst for gold, and sudden changes in fortune, are the chief causes that provoke insanity. The constantly increasing resources of the Assistance Médicale, by enabling it to aid so large a number of patients, have materially influenced the statistics of mental diseases—for formerly a large number of epileptics, imbeciles, and persons suffering from senile dementia, who would have remained unnoticed in the rural districts, are now inmates of asylums. If the events of 1870-71 have exerted any decided effect on the mental condition of the Parisian population, it is because they modified the conditions of existence. Thus, on the declaration of war, when a considerable number of young persons joined the colours, numerous cases of sub-acute alcoholism were met with among quite young people, as a consequence of the excesses committed under the influence of the emotion caused by the approaching departure. When the enemy approached, and investment was menaced, the population of the suburbs took refuge in Paris, and these unfortunate beings, in a state of constant anxiety and anguish, insufficiently aided and badly fed, furnished a good many cases of melancholic insanity. Other disturbances arose under the conditions of existence necessitated by the defence. The men passing their time at the fortifications and committing excesses in drink, were in large numbers attacked with sub-acute alcoholism, while the ill-fed women presented the psychical disturbances due to inanition—hallucinations, melancholic delirium, &c. Still, insanity, properly so-called, seemed to have decreased. At the time of the bombardment, the inhabitants of Montrouge took refuge in the other districts, and a great many became subjects of panophobia or "perplexed melancholia," several of the women presenting, without any period of invasion, the phenomena of melancholia with stupor or stupidity. During all this period, the epileptics in the Salpetrière underwent no increase in the number of their attacks. One single category of the insane exhibited a notable increase, viz., the *inventors*, who still continued numerous until the period of the Commune. In conformity with the documents on the hereditary and personal antecedents of the subjects of psychical disturbances during this period, the existence of obsidional insanity cannot be admitted.

The pathogenic influence of the events of the siege was not only felt among adults, but was also very marked on the development of infants conceived at this epoch. The numerous disturbances in their evolution observed among infants born in the later months of 1871, and the exceptional mortality which occurred amongst them, caused them to be designated by the working population as *les enfants du siège*—a name synonymous with an ill-formed infant destined to a fatal lot. Among 92 infants conceived during the siege, Dr. Legrand du Saulle found that in 64 there were physical, intellectual, or moral anomalies, the remaining 28 being in general small and sickly. As to the pathogenic influence under which these anomalies are developed, that must be a complex one, the principal elements of which are alcoholism, inanition, and the psychical condition determined by the moral shock under circumstances so eminently dramatic.

"What is Meant by Nervous Prostration?"—In this paper (*Boston Medical and Surgical Journal*, January 17th), Dr. Roberts Bartholow remarks, with reference to the now often heard terms "neurasthenia," "nervous prostration," "hypochondria," that the corresponding French word, used in the same sense as we now employ it, has been a stock word of French neurological medicine for fifty years. There are two types of this "neurasthenia"—the *congestive* and the *anæmic* varieties. After describing in detail cases which illustrate these two forms, and pointing out that in each the functional nervous disturbances were secondary to derangements of the assimilative processes, and that to the functional disorder thus caused are added the effects of introspection and the realisation, to an unusual extent, of ordinary peripheral excitations by the centres of conscious impression, the author continues: "The brain, of all the organs of the body, illustrates in the most perfect manner the 'principle of least action.' So far from being injured by severe labour carried on under normal conditions, the brain is improved by it. Mental activity keeps the brain in a healthy state. When, therefore, a man says he is suffering from the effects of mental overwork, I want to know what his vices are. Worry may be one of these. The worries of life do infinitely more harm than the work of life, howsoever hard that work may be." He denies that life is more exciting on his side of the Atlantic; "it is the very ease and luxury of our American life that cause mischief. It is the indulgence in eating and drinking, the abuse of alcohol and tobacco, sexual excesses, sedentary habits, and too luxurious lives generally, that induce the state of the system called nervous exhaustion." To the question, why are the somatic derangements caused by the conditions referred to, in some cases accompanied by the mental and nervous symptoms of neurasthenia, and not in others? he replies, that in the conduct of life every man who has a position to make or to obtain, exerts a certain moral force to hold himself up to his work. Some men are so happily constituted that they are quite unconscious of the effort and stand in the front, serenely confident. Others are all the time labouring, they feel it,

and they know it. Men conscious of the effort made to keep up, need but little excuse to surrender themselves to their sensations. At the present time nervous prostration is much feared, its symptomatology is a common subject of discussion, and hence, if a man who is familiar with its character is arrested in his career by some of the ailments supposed to belong to it, his imagination readily supplies the rest. No part of the body is without sensation even in health; to perceive these sensations, the attention needs only to be withdrawn from external things, and concentrated on the part. Thus, when the subject of neurasthenia pursues his introspection, he becomes conscious of numerous sensations which, because now felt for the first time, are new. Suggestion adds its quota of symptoms, and to these subjectively developed nervous symptoms must be added the reflex—headache, vertigo, tinnitus, palpitation, asthma, neuralgia, &c., &c. "Indeed there is no symptom in Beard's catalogue of those belonging to neurasthenia, that may not be due to merely reflex influences having their initial seat in the digestive apparatus. It follows that the term neurasthenia, or its common equivalent, nervous prostration, is either inadequate, or it expresses too much, —inadequate if the complex of symptoms includes the functional disturbances of all the organs affected; expresses too much if the malady is merely a nervous one." Dr. Bartholow would define "nervous prostration" as "a disease usually functional, situated in one or more organs, during the course of which reflex disturbances of the brain occur, and numerous subjective sensations in all parts of the body are realised by the consciousness;" he denies that it is a primary nervous affection, or a substantive disease, but regards it as symptomatic and secondary. This conception fixed in the mind, the treatment of neurasthenia is successful or unsuccessful according to the measure of our skill in localising the initial disturbance, and in addressing our remedies to that as well as to the general state of the patient.

Cysticercus of the Brain.—In the March number of the *Archives de Neurologie*, M. Bernard records a case of this somewhat rare affection. The patient was a man, aged 24 years, who had suffered from attacks of headache and vomiting for a year when he came under observation. These attacks were accompanied by vertigo and transient loss of vision. Latterly the headache had become constant; there was no loss of motor power, but the patient staggered in walking, and complained of numbness in the right side of his face and tongue. There had also rapidly ensued impairment of vision. On examination, there was marked retraction of the field of vision, especially on the right side; his colour fields could not be taken, the visual acuity was much diminished on the right side. The pupils were dilated, and very sluggish both to light and during accommodation; there was a typical "choked disc" on each side. After his admission to the Salpétrière the vomiting was checked, but he suffered much from headache and from vertigo, and he gradually became quite blind. He died from double pneumonia. At the necropsy, a small sac was found just in front of the optic commissure, but not having any direct relations to it; a second sac was seen depressing the second frontal convolution on the left side; and a third embedded in the wall of the fourth ventricle, on a level with the left eminentia teres. There was evidence of inflammation of the ependyma here, and a general increase of cerebro-spinal fluid. It is to this third cyst that the author would attribute all the symptoms observed. The cysticercus which was found in it, measured five millimetres in length, four in width, and three in depth.

Cortical Lesions of the Brain.—Following the example set by MM. Charcot and Pitres last year in the *Revue de Médicine*, Dr. Allen Starr has commenced in the April number of the *American Journal of Medical Sciences*, a paper on the above subject. In this, his first instalment, he deals with the non-motor area. Fifty cases collected from American medical literature are quoted with more or less detail; of these no less than 23, or nearly one-half, relate to lesions of the frontal lobes. The first case is that known as the crowbar case, the others include damage to the frontal lobes from bullets and other foreign bodies, from abscesses, and from tumours of various descriptions. Putting all the cases together he found that mental disturbance had been present in one-half; it took the form of loss of control and change of character. Memory did not appear to be affected, but the faculties of judgment and reason were strikingly impaired. In other respects the evidence furnished by this group of cases was negative, and the diagnosis of lesion of the frontal convolutions would have to be based upon the presence of mental disturbance, with general symptoms of cerebral disease, and the absence of motor or sensory disorder. The eleven cases of lesion restricted to the temporo-sphenoidal lobes which are here collected, do not lead to any very definite conclusions, except that the areas for motion, sensation, and vision do not lie within them. A more careful study of the special senses in cases of brain disease might, Dr. Starr thinks, show that some had their origin in this region. The cases of disease confined to the occipital lobes tend to support the contention already put forth by Dr. Starr that the visual area in the brain is situated in this region. The cases of disease only in the parietal lobes are naturally few in number, they seem to show that the motor area does not extend back behind the ascending parietal convolution, and they do not support Landouzy's hypothesis that the centre for the movements of the eyelids is in the pli courbe.

The Diagnosis of Hysterical Hemiplegia.—In a clinical lecture, which M. Marie has recorded in the *Progrès Medical* (No. 11), Prof. Charcot describes a characteristic case of hysterical hemiplegia. The patient was a young woman, aged nineteen, who had had some manifestations of hysteria at the age of sixteen, but had since remained well. On the day following a somewhat severe shock caused by a shelf falling on to her during sleep, she was suddenly seized with right hemiplegia, without any warning at all. When she presented herself at M. Charcot's clinique three days later, the leg had already improved somewhat, but the arm hung by her side, she could extend it a little, and could just move the fingers, there was no rigidity. She dragged the leg a very little in walking, the face was not paralysed The tendon reflexes were rather diminished on the side affected. There was loss of common sensation and loss of the muscular sense in the right arm. The temperature of this arm, too, was distinctly lower than that of the other. The absence of any paralysis of the face, and the co-existence of loss of sensation and of muscular sense enabled M. Charcot to exclude a cerebral lesion, and in the same way a spinal lesion could be dismissed, as had that been the case, the anæsthesia should have been on the side of the body opposite the motor paralysis. The application of the Faradic current for a few minutes sufficed to entirely dispel the motor and sensory paralysis.

Disseminated Sclerosis.—The study of a case of disseminated sclerosis which, in its clinical features, closely simulated lateral amyotrophic sclerosis, has given M. Déjérine (*Revue de Médecine*, March) the opportunity of making some interesting and valuable remarks on the pathology of scleroses in general. The case which forms the starting point of the paper was that of a woman, aged forty-six years, who had had for fourteen months atrophic paralysis, with contracture of all four limbs. The disease commenced in the legs, spreading thence to the arms, and ultimately to the lower part of the face, the paralysis of the limbs became absolute, and the atrophy extreme; it was throughout symmetrical. An interesting feature of the case was the high degree of contracture which was present, so great was it that it could not be altogether overcome by the employment of force, the tendon reflexes were

highly exaggerated. The general and special sensibility was unimpaired; but towards the end there were some symptoms of labio-glossal paralysis. At the autopsy it was found to be a case of disseminated and not of lateral amyotrophic sclerosis. Spinal and cerebral scleroses, M. Déjérine goes on to say, may be and ought to be divided into primary when the neuroglia is affected from the outset by the irritative process, and secondary when it is only the result of the nerve disorder. In disseminated sclerosis the affection of the neuroglia is primary, as is shown by the fact that the nerve tubes and axis cylinders disappear very slowly from gradual compression by the contracting neuroglia. In tabes dorsalis, the contrary is seen; for the axis-cylinder disappears before the neuroglia has commenced to proliferate. Disseminated sclerosis, then, and probably all forms of non-systematic sclerosis have a vascular origin; whereas, in systematic sclerosis, the vascular lesions which are present are secondary. Thus, in a case of hemiplegia, fatal just when rigidity was setting in, the vessels of the pyramidal fasciculus were already found to be undergoing endo- and peri-arteritis, and their lymph sheaths were distended with corpuscles; but the nerve tubes showed a much more advanced state of degeneration, the axis cylinders having already disappeared, and the neuroglia showing traces of irritation at a point far removed from the vessels, contrary to what takes place in non-systematic sclerosis. The vascular origin of the patches in the latter explains both their scattered distribution and the absence of any tendency to spread in a systematic manner.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 25TH, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

Epithelioma of the Tongue, involving the Floor of the Mouth, Left Tonsil, and Soft Palate.—Removal by the Buccal Operation.

MR. F. J. GANT, in communicating this case, said that the principal points of importance were—the unusual extent of the disease for which the operation was performed; and that the method by buccal incision offered the only, or the readiest, way of removing the tongue and adjoining parts involved, in order to extirpate the whole of the disease, under these exceptional circumstances. The question was also raised as to the desirability of reaching the tongue through the cheek in all cases. Having related the history of the case, the operation, as performed with the chain-ecraseur, was fully described. The above propositions were then considered.

Mr. JESSETT enquired whether Mr. Gant would always prefer the use of the ecraseur to that of scissors. He thought, that if sufficient time were allowed for the operation, the scissors would give the most satisfactory results, the surface of the wound being left in much better condition for immediate healing. The dangers and difficulties of hæmorrhage were rather apt to be exaggerated. He had not met with a case where the whole growth could not be thus simply removed, and he thought that the scissors could always be used effectively without dividing the cheek.

The PRESIDENT called attention to the relation of the molar tooth to the growth, and asked if any causative importance had been attached to it.

Mr. GANT, in reply, said, that from their exact correspondence in position, he had thought that there must be a direct relation between the tooth and the growth. The various methods of operating through the mouth were all open to objection in cases of large growth; the submental operations, although in some cases admitting of more complete control of hæmorrhage, did not permit of the same access to all parts of the mouth and pharynx as the buccal operation. He considered that Syme's operation of dividing the jaw was an unsurgical procedure, except in cases of very extensive disease, and in such cases removal had better not be attempted. The removal of large growths, by means of scissors, through the mouth, was in some cases impossible; and he thought that the difficulties and complications which would attend the conversion of an oral into a buccal operation were such as to render the proceeding hardly feasible. In every respect, therefore, he would give the preference to the buccal operation.

A Case of Gluteal Aneurysm.

A paper on this subject, of which the following is an abstract, was read by Mr. G. R. TURNER:—Samuel P., aged 51, coachman, was admitted into the Seamen's Hospital, Greenwich, on September 17th, 1883. He had been previously under the care of Mr. Roper, of Lewisham, from whom the following history was obtained:—On September 5th the patient was thrown out of a pony carriage, and when seen by Mr. Roper, was found to have a scalp wound, exposing bone on the right side of the head, and a contusion of the back, right hip, and buttock. He did well till September 14th, when, without leave, he got up. On getting back into bed he felt something snap in the right buttock. Immediate swelling came on, and when Mr. Roper saw him, this swelling had most distinct pulsation. Ice was applied locally, and in two days the pulsation ceased and the tumour became hard and painful. On his admission into the Seamen's Hospital, the integuments over the swelling were inflamed, and there were marks of fading bruising extending over the buttock up to the scapula. No pulsation or thrill in the tumour, which measured some eight inches by six. The man had been a hard drinker, probably had had syphilis, and both radial and temporal vessels were atheromatous. There was some slight fever on his admission. This subsided after a few day's rest, and the condition of the integuments became less inflamed. The tumour, however, became larger, and fluctuation marked. At one place the skin, on September 30th, was prominent and thinned, the superficial inflammation returned, and the temperature rose again. On October 9th, it was evident a portion of the skin had lost its vitality, and that the tumour was on the point of bursting. Exploratory puncture with a fine trochar showed that the superficial part of the swelling was solid, and gave rise to a flow of bright arterial blood from the deeper part with no relief to the tension. On October 10th the patient was put under ether, the sac of the aneurysm laid open from end to end, and more than 42 ozs. of disintegrating blood clot turned out. An oval aperture about the size of a split pea was found in the gluteal artery just as it left the pelvis. A carbolised silk ligature was placed on either side of this, and tied. The vessels were diseased. During the operation the rectal lever was used, and but very little blood, except that in the sac of the aneurysm, was lost. Previous examination by the rectum showed the swelling was extra-pelvic. The gluteus medius, minimus, and the external rotators of the thigh were exposed at the bottom of the sac. The gluteus maximus was completely destroyed. The wound was plugged with a carbolised sponge, and dressed with carbolic gauze. The man did well for eight days, when tetanus attacked him, and he died exhausted on the eleventh day. By that time the wound was granulating healthily; all the sloughs had separated, and all ligatures had come away. No injury to the gluteal nerve could be detected. At the operation the vessel was completely isolated, and seen perfectly before ligature. No *post-mortem* examination could be obtained. The diagnosis in this case

presented no difficulty, although, but for the history, the swelling at one time might have been mistaken for an abscess. It bore no resemblance to tumour of bone. At first it seemed possible that a natural cure would result, and it was not until the tumour was on the point of bursting that operation was undertaken. As the danger of secondary hæmorrhage is so very great, laying open the sac was delayed as long as possible. The rectal lever proved most efficient and should be superior to an abdominal tourniquet in such cases. Since Mr. Holmes's lectures in 1874 two cases of gluteal aneurysm have been recorded—one by Mr. Hussey, of Oxford, in Vol. XIII. "St. Bartholomew's Hospital Reports," in which death occurred from secondary hæmorrhage on the sixteenth day after laying open the sac; and another by Dr. Sands, of New York, in the *American Journal of Medical Sciences*, April, 1881. Examination by the rectum in this case showed the sac to extend into the pelvis, and the internal iliac artery to be diseased. Pressure was made by the hand in the rectum on the common iliac vessels on two occasions for 1½ and 3¼ hours, and caused on each occasion some clotting of blood in the sac. Eventually, however, the aneurysm resumed its former condition, and in spite of instrumental pressure, the patient was discharged in the same condition as on his admission.

Mr. Pick, having been present at the operation, praised the efficiency of the rectal lever and thought that its introduction had robbed the great operations about the hip of half their terrors. He was perfectly sure that the gluteal nerve in the present case had not been included in the ligature, a point which was of importance in seeking for the cause of the subsequent tetanus. He would have preferred, in dealing with the gluteal artery, to have divided it and tied the two ends.

Mr. T. Holmes expressed an opinion that these cases of gluteal aneurysm were of extreme rarity. He had never seen one himself. In collecting cases, however, for his lectures at the College of Surgeons, he had found that most of those recorded as aneurysms were in reality formed as a result of injury, as in the present case. When there is a wound in a main vessel producing a pulsating tumour, there is but little hope of spontaneous recovery, and in such a case as Mr. Turner's, operation was the only treatment. He disagreed with Mr. Pick as to the necessity for dividing the vessel before tying it, nor did he think that the chances of secondary hæmorrhage would be in any way influenced by it. Complete division of an artery in bleeding from a small wound in its wall, was a well-known procedure in surgery, and, in the days of temporal arteriotomy, was constantly practised. A very important point in dealing with these cases was to ascertain the exact position of the wound in the artery by means of rectal exploration. Several fingers, or even the whole hand, might be introduced into the rectum and the condition of the vessels determined. If the tumour were found to be intrapelvic, he thought that it would be a rash proceeding to attempt to lay it open, and one which would probably necessitate ligature of one of the great arteries. He regarded Davy's rectal lever as a most valuable surgical invention, and by far the best means which we at present possess of controlling hæmorrhage in such cases. The abdominal tourniquet and pressure by the hand, or by pads and straps, were all open to special objections from the local injury which they might themselves inflict. He was convinced that no damage had been done to the gluteal nerve during the operation, but thought that the amount of irritation set up around it by the aneurysm must not be disregarded. It was probable that many of these so-called gluteal aneurysms were often due to injury of vessels other than the gluteal, but in any case the rules for treatment remained the same. He looked upon Mr. Turner's paper as a valuable contribution to surgical literature, and thought that the case, except for the accident of the tetanus, must be regarded as successful in its result.

Mr. H. Morris thought that it was unnecessary to specify the gluteal nerve as the starting point of the tetanus, the amount of local injury, and the pressure exercised by the swelling upon surrounding tissues, would afford sufficient explanation for its occurrence. Referring to the delay in operating upon the present case, he expressed an opinion that it would have been better to have operated at once, and he considered that, as as rule, these cases, where a radical operation is called for, are far too often postponed until good results become impossible.

Mr. G. R. Turner, in reply, observed that he would have willingly adopted Mr. Pick's suggestion to divide the artery had it been made at the time of the operation. With respect to immediate operative treatment, he pointed out that it was only applicable to cases of wounded vessels, and not, as in this instance, to cases of rupture, in which the diagnosis is of necessity less certain. The occasional improvement in his case had led him to hope that it might result in spontaneous cure.

Extensive Thrombosis following Fracture of both Bones of the Forearm.

The following case was communicated by Mr. Arbuthnot Lane:—On the 9th November of last year the patient fell heavily on her left side down some steps, breaking both bones of the forearm, the ulna at its centre, and the radius at the junction of the middle with the lower third. There was much displacement of the radial fragments. The shoulder and arm were also much bruised. The swelling subsided within a few days, and the arm progressed very favourably till the 29th November, when sub-inflammatory œdema of forearm set in and extended into the upper arm. It was accompanied with much pain and tenderness, especially along the front of the forearm and course of the brachial vessels. It almost completely subsided only to reappear more extensively on December 21st accompanied by still greater pain. It again subsided, and again returned on January 5th. This time it extended up to the shoulder. She had now great pain in the neck and above and below the clavicle. By January the 15th, the left side of the chest, neck, and face were much swollen and were extremely painful. There was also severe headache in the left side of the head. She was very prostrate. Dr. Carrington, who saw the case with him at this time, also felt no doubt that the thrombosis had extended along the subclavian to the innominate and internal jugular veins, and a rapidly fatal termination was feared. However, the swelling slowly subsided from the left side of the face, then from the neck, and then from the side and upper arm, and by February the 6th it was limited to the forearm and lower third of the upper arm. On February the 9th she had a recurrence of the swelling which extended to the side and neck, with pain and tenderness. This subsided, so that she was able to get about and commence to use her hand and arm which was progressing very favourably. The radius has, however, not united by bone. On April 1st, without any apparent cause, a rapid and complete recurrence of the swelling took place, not, however, being accompanied by the same very great pain, nor with such severe headache. The left side of the face was much swollen, as were her neck and side. This swelling of the face and neck subsided, leaving by April 10th the left side and back of the chest about two inches larger than the right, and the left arm a good deal swollen, so much so that she could not use it. There was a firm resistance along the left internal jugular. She continues to improve steadily.

Mr. T. Holmes asked for further particulars as to the progress of the fractured radius which had not healed with the ulna. He referred to a paper by the late Mr. Callender on the non-union of fractures in consequence of thrombosis of the great veins leading from the seat of injury. He thought that the delayed union in the present case might be explained by the frequently recurring obstruction of the veins.

Mr. LANE replied that the fracture had remained for six months ununited, and there seemed no probability that union would take place now.

Dislocation of the Elbow backwards, with Fracture of the Coronoid Process.

A paper, with this title, by Dr. H. A. LEDIARD of Carlisle, of which the following is an abstract, was read by Mr. R. J. Godlee:—A young fisherman, aged 28, fell whilst wrestling, his hands touching the ground in the prone position with the arms extended. He heard a distinct snap. After undergoing a course of unsuccessful manipulation by a bone-setter, he was admitted into the Cumberland Infirmary with displacement of both bones of the forearm backwards, causing almost complete inability to produce either flexion, pronation, or supination. Concomitant fracture of the coronoid process being diagnosed, excision of the joint was performed. The patient was well in a month, the movements of the new joint progressing satisfactorily. The specimen (which was exhibited) showed that a considerable piece had been broken off the coronoid process, the fractured surface having eroded and polished the posterior surface of the trochlea. The head of the radius lay behind the capitellum, the sigmoid cavity in its centre being filled up with a semi-fibrous mass, which would have formed an insuperable obstacle to the reduction of the dislocation. A small chip of bone was found adherent to the capitellar surface of the humerus, possibly a part of the fractured process. The opinions of most authors agree in regarding this injury as extremely rare; in two cases however, in which dislocation of the radius and ulna recurred after reduction, Dr. Lediard had been able to diagnose fracture of the coronoid process, in addition to the displacement.

Mr. GODLEE remarked on the very small size of the fragment of bone which was assumed to be the fractured coronoid process, but which he himself would take to be a splinter of bone accidentally chipped off at the time of the accident.

Mr. T. HOLMES thought that the question of fracture of the coronoid process was viewed in a somewhat different light now than was formerly the case. He gave details of two cases of undoubted fracture with dislocation. In the present case, he had no doubt as to the genuineness of the fracture; but he believed that the detached fragment still remained in the arm, not having been removed at the time of the excision.

Mr. GANT thought that the injury was a very rare one. The fragment of the coronoid process would of necessity be drawn up by its attached muscles, and the dislocation would be sure to remain unreduced.

Mr. H. MORRIS pointed out that if the fragment were drawn up by the action of the brachialis anticus, the fracture must be low down, and a swelling would thus be produced which could hardly fail to be detected. He thought that the rarity of these cases might be attributed to the extreme difficulty attending the diagnosis of many injuries about the elbow joint.

The following Living Specimens were shown:—

Congenital Hypertrophy of one Limb; by Mr. R. W. PARKER.

Case of Voluntary Starvation in a young Girl; by Dr. HERON.

ROYAL FREE HOSPITAL.—The Lord Mayor presided on Wednesday, April 23rd, at Willis's Rooms, at the annual festival dinner held in connection with the above hospital. Speaking of finance, he said the hospital was entirely dependent for support on subscriptions and voluntary donations and legacies. The annual expenses amounted to 10,000*l.*, while no more than 2,000*l.* was received from subscriptions and other sources. During the evening subscriptions were announced to the amount of 1,635*l.*

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 17TH, 1884.

Dr. PERCY BOULTON, Vice-President, in the Chair.

Diarrhœa in Children.

DR. LEES, in his paper, called attention to a class of cases, not very uncommon in children, in which the main symptom is an irresistible impulse to defæcation, experienced almost immediately after food has been taken. Colic pain may, or may not, be present, but there is no sensation of weight at epigastrium, heartburn, flatulence, or other symptom of dyspepsia. The motions are usually semi-solid, not often watery or slimy, and frequently contain undigested food. Usually a motion is passed almost immediately after every meal, and perhaps once or twice more during the twenty-four hours. Dr. Lees pointed out that these symptoms are evidently due to a hyper-peristalsis of the alimentary canal, without increase of secretion, the two factors of ordinary diarrhœa being here disassociated. Such increase of peristalsis is probably due to irritation of the vagus nerve, which supplies the excitor fibres to the intestine, the splanchnics conveying the inhibitory fibres. The proximity of the nucleus of the vagus to that of the trigeminus, in the medulla, indicated the possibility that this increased excitability of the intestine may in part be due to dental irritation, the cases in question usually occurring during the period of the second dentition. Believing in the purely neurotic origin of the symptoms, Dr. Lees had treated several cases with bromide of potassium, simply without opium or any astringent, and had obtained immediate success, even in cases which had persisted for several months. The diarrhœa was usually arrested in a few days, and occasionally the children became so costive that the medicine had to be discontinued. Four cases were narrated, also a similar case occurring in an adult, in all of which speedy relief was given by bromide. In conclusion it was remarked that individuals who suffered from these symptoms were often of a markedly neurotic temperament, timid, and easily frightened.

Dr. DAY enumerated the various forms of diarrhœa met with in children, most of which could be shown to depend upon some error in diet. Cases such as those described appeared to own a nervous origin, and were amenable to appropriate treatment.

Mr. MIVART had met with several instances of the condition described. In one case, occurring in a telegraph-boy, he had employed bromide of potassum, with complete success.

Dr. ALDERSON recognised a neurotic form of diarrhœa in young children, and bearing in mind the efficacy of bromide of potassium in arresting the convulsions of dentition, he thought this agent might be found most useful in controlling the diarrhœa due to the same cause. Dr. Alderson mentioned that he had seen cases where mischief had been caused by prescribing prepared chalk and gum; such a mixture, although stopping the diarrhœa, subsequently produced hard fæcal concretions, and not infrequently led to peritonitis. He would like to have heard Dr. Lees' opinion as to the treatment of the dyspeptic diarrhœa of children as well as of those forms caused by filth, atmospheric changes, and defective sanitary arrangements.

Dr. EWART referred to the beneficial effects of arsenic in cases of diarrhœa set up by the ingestion of food, and to the success which attends the administration of small doses of grey powder in combination with aromatic powder of chalk in the diarrhœa which often accompanies the first dentition.

Mr. CRIPPS LAWRENCE, speaking of the diarrhœa of children during the second dentition, called attention to the mental restlessness peculiar to that age, which, no less than the tender gums, contributed in rendering mastication imperfect. Could not the satisfactory results obtained by Dr. Lees be in a great measure explained by the soothing effect of the bromide, and by the less hurried meals?

In his reply, Dr. LEES alluded to the mode of action of mercury in infantile diarrhœa; it probably was of service chiefly as an anti-putrefactive agent. Arsenic had been

stated by Dr. Clifford Allbutt to be contra-indicated in neurotic subjects. The kind of diarrhœa described claimed to be looked upon as a special variety, inasmuch as it was essentially independent of diet.

Acne Rosacea.

A paper was read on this subject by Dr. T. Robinson. Like lupus erythematosus, rodent ulcer, sycosis, and other lupoid processes, acne rosacea was almost universally limited to the face. In rare cases the disease appeared on the scalp of bald subjects, and it had been observed by the author to occur over the sternum. Acne rosacea was always associated with an irritable state of the mucous membrane, especially of the stomach. It was always heralded by futigive flushings of the face, especially occurring after food, but increased also by other causes, such as wind, exposure to sun, or soap. These flushings led to permanent dilatation of capillaries, followed by stasis, formation of papules, and all the inflammatory states peculiar to the malady. The inflammatory action might or might not involve the sebaceous follicles. The malady had a close relationship with what was known as relapsing erysipelas of the face, and with the vesicular and the non-vesicular erythema which attacked the same situations and obeyed the same laws. Lupus erythematosus was also akin to acne rosacea; It was not possible by any outward manifestations to distinguish one disease from the other in their early stages. Acne rosacea did not occur before the age of puberty; it was about equally distributed in the two sexes until the climacteric period of life, when it was seen much more frequently in the female, and was due in these cases to physiological activity of the hair follicles in the chin and upper lip especially, as is seen in the growth of hair in these situations at the said epoch of life. There were skins which could not develop acne rosacea; the latter was commonly only an expression of a local tendency in a general dartrous diathesis.

Dr. Alderson related a case of severe acne rosacea (in a young lady, aged sixteen), which had for a long time baffled treatment. When first seen by Dr. Alderson the appearance was almost that of semi-confluent small-pox in its pustular stage. A mixture, containing Decoct. Aloes comp. with Soda and Liq. Pot. Arsen. was prescribed; also a drachm of compound liquorice powder every night. The face was painted with a solution of nitrate of silver in nitric æther (3j. to ℥j.), and a poultice subsequently applied. Severe pain was set up, and after the application of a soothing lotion containing Zinc Oxide, Bismuth, and Liq. Plumbi, several of the pustules were lanced, and abundant pus let out. The caustic solution was applied repeatedly at intervals, and in the course of a month the patient was almost well. Dr. Alderson was at that time attending her father for a severe attack of acute eczema, associated with gout and with syphilitic psoriasis of the hands and fingers.

Mr. Drew gave an instance of the value of scarification in a case of hypertrophy of the nose associated with acne rosacea.

Dr. Lees referred to the frequency with which acne rosacea was found in those who were strictly temperate.

In reply, Dr. Robinson expressed an opinion that the case related by Dr. Alderson was one of acne indurata, rather than of acne rosacea. Scarification could hardly be of use in cases of true elephantiasis, but where acne rosacea was superadded to pre-existing acne of youth, this measure, as well as division of the enlarged vessels, might be tried with advantage.

Middlesex Hospital.—The secretary has issued an appeal for 15,000*l.*, for the purpose of carrying out a well-considered and extensive scheme for providing: (1) accommodation for the medical staff, (2) rooms for the servants, (3) an additional ward for male cancer patients, (4) a sick-room where any member of the staff can be isolated if attacked by severe or infectious illness, and (5) a re-arrangement of the out-patient department, long urged by the surgeons and physicians who have found it almost impossible to carry on their work under the present inconvenient arrangement.

GENERAL CORRESPONDENCE.

EXAMINATION FEES FOR UNIVERSITY UNDERGRADUATES UNDER THE MEDICAL BILL.

[To the Editor of the Medical Times.]

Sir,—I do not pretend to know "what was in the mind of the draughtsman of the Bill," nor is it material, inasmuch as he has certainly extended to simple matriculants of non-academic "Universities" all the privileges which were intended for undergraduates who reside and study in their University, and who pursue their Arts curriculum concurrently with their medical work. Moreover, the representatives of the Royal Irish University have availed themselves of the wording of the clause, and insist that their matriculant should receive his final examination at a nominal cost, although he has neither resided, studied, been supervised, nor pursued an Art's course in their institution, but has simply come up to the examining centre twice in the four medical years.

To obtain this exemption from final payment, the student simply pays 10*s.* for a matriculation examination, somewhat inferior in standard to the ordinary preliminary of a college, and 1*l.* nine months afterwards for a second examination in identically the same subjects. He works in any school he pleases, side by side with the student who is going for a collegiate license, but maintains no connection whatever with his University; and it is not until the end of the third year that he enters the walls of his *alma mater*, to be tested in medicine, for which he pays 1*l.*

His collegiate fellow-student, on the other hand, has to pass an examination at the end of each year, for which he pays 5*l.* annually, so that he has paid double in brain-work, and five times in money, for his examinations, and his Arts education is fully on a level with that of his fellow, the "University undergraduate." Yet, when these students come to the final examination, the University matriculant is to be treated as a superior and privileged individual, and is admitted at a nominal fee; though he has studied in the same school-museum and library as the collegiate student, is infinitely inferior in his examination tests, and has paid for them barely one-fifth of the money paid by his fellow.

Whether the University of London, or any other University, except the Royal Irish, answers to this description, I do not pretend to say; but I do assert that the Bill places every institution, which pleases to call itself a "University," on a perfect level, and gives its *alumni* a position of superiority and privilege to which neither their education nor the expenditure on it in any way entitle them.

I urge that such privileges should be limited, at least, to Arts graduates of three years' standing.

I am, Sir, yours &c.,

A. H. JACOB, M.D., F.R.C.S.I.

UNDER THE RED CROSS.

[To the Editor of the Medical Times.]

Sir,—You have so often permitted me to express my views on military medical matters in your influential columns, that I venture to ask you to insert this letter, expressing disagreement with one suggestion in an otherwise admirable article which appeared in your issue of April 19th, on the "Grievances of Army Medical Officers." You say, "Let the title of non-combatant be abolished." In my opinion the title should be retained, as expressing a great truth, and denoting a most dignified position. It is quite possible to understand that the word non-combatant may seem at first sight inapplicable to Army Medical Officers. They share all the risks and dangers of the battle-field with their combatant brethren, and they run far greater risks in times of pestilence. But if they were called upon to suffer twice as much, how would their position be improved by the abolition of the term non-combatant? Doctors they are and must remain. They have no other reason to plead for their existence in an army, than that they belong to a department, whose sole duty it is to repair the injuries

inflicted in battle, and prevent, if possible, the ravages of epidemics. It is the state of life in which it has pleased God to call them, and with many it is the state of life they have chosen for themselves. I grant that there is a kind of sting in the word non-combatant, which may irritate *young* medical officers, although it should not do so. The annoyance is heightened by, and perhaps arises from, the fact that the military medico is called upon by "Regulations" to be combatant "all over." From the cocked hat on his head to the spurs upon his heels he is a man of war, and has nothing to do with peace. Alas for the young doctor if his sword and stripes and gold lace throw him off his balance and make him despise his own profession! He cannot shake it off while he continues in the service; he cannot but remain the doctor. If the title "non-combatant" were dropped, nothing would be gained in social position unless some other titles were usurped. Supposing even that a medical man were permitted to use the relative rank as positive, and call himself colonel, major, or captain upon his visiting cards, what could he gain by it? In small towns and in county society these titles have still a little social value, although people hardly know why, but let no one suppose that a doctor would ever be allowed to dissociate himself from his professional status. The wiser members of the Army Medical Department have long striven for other advantages than could be obtained by masquerading as combatants. They have fought hard for power, but only for power over their own hospitals and all who do duty in them. They have expressed a wish for more consolidation as a scientific corps, a corps which can afford to dispense with long sword and sabretache. And there is no doubt that the Army Medical Department will get all these good things. Such a department need not shrink from wearing the Red Cross, nor fear to be called "non-combatant." When its members carry the badge they will but proclaim that they are anxious to do their proper duty. It is a curious illustration of inconsistency to find that at the Easter manœuvres numbers of men *in the ranks* bore the Geneva badge on their arms! It seems to me these fighting men in thus proclaiming themselves non-combatant were altogether wrong. The only men who should wear the cross "in the field" are the doctors of the Army Hospital Corps. It is the sign that the wearer is devoted to the healing art, and is strictly non-combatant. If men in the ranks wear the emblem of peace and good will no enemy will respect it, and the Geneva flag may as well be hoisted upon the General's head quarters as on the hospital tent. I would restrict the use of the Red Cross on a campaign to the members of the Medical Department, including, of course, all those under their command, and retain the honourable title of non-combatant.

I am, Sir, yours, &c.,

SENEX.

MEDICAL NEWS.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

A Meeting of Members was held on Wednesday, April 30th, at the temporary offices, 3, New Inn, W.C., when the following resolutions were passed:—"1. That we form ourselves into a body, to be called 'The Association of Members of the Royal College of Surgeons,' for the express purpose of obtaining certain rights and privileges in reference to the management of the College of Surgeons, which we do not at present possess. 2. That the above resolution be communicated to members residing in the chief towns of England and Wales, who shall be requested to act as Local Secretaries, and to enrol the names of members residing in their respective towns; and, further, that the Local Secretaries be asked to forward suggestions to be considered at the next Meeting of the Committee, on Wednesday, 14th May. 3. That a report of this meeting be sent to the Medical Newspapers." A proposal of Dr. Hickman (who was unavoidably absent) was mentioned by Mr. Forrest, to the effect that it was desirable that a joint association should be formed of Members of the Royal College of Surgeons and Licentiates of the Royal College of Physicians. Dr. Dowse observed that the former stood in an entirely different position to the latter, inasmuch as they formed a portion of the body corporate; whereas the Licentiates of the Royal Colleges of Physicians merely possessed a licence to practise, and were not members of the college. Dr. Warwick C. Steele thought that vigorous measures should be taken to suppress unprofessional conduct, such as advertising; he had sent advertisements he had received to the College of Physicians, the College of Surgeons, and the Society of Apothecaries, but one and all said they could do nothing. Dr. Foster MacGeagh said, that in conversation with him, Fellows themselves had admitted that their exclusive position was a matter of luck, and they could give no reason why members should have no privileges. Mr. M. G. Biggs, was of opinion that the Association should be based upon broad principles, and that their course of action should not be at first too closely defined, pending suggestions to be received from the general body of members. The following were appointed on the committee:—M. G. Biggs, M.R.C.S., 93, Northcote Road, Wandsworth Common, S.W.; Robert Collum, M.D., M.R.C.P., M.R.C.S., Sutherland House, Surbiton; T. Stretch Dowse, M.D., F.R.C.P., M.R.C.S., 14, Welbeck Street, Cavendish Square; Alexander S. Faulkner, I.M.D., M.R.C.S., 34, Southwick Street, Hyde Park, W.; William Hickman, M.B., M.R.C.P., F.R.C.S., 1, Dorset Square, N.W.; J. Brindley James, M.R.C.S., 47, Jamaica Road, Bermondsey, S.E.; Foster MacGeagh, M.D., M.R.C.S., Junior Athenæum Club, S.W.; F. St. George Mivart, M.R.C.S., L.R.C.P. Edin., 6, Devonport Street, Hyde Park, W.; James Newham, M.R.C.S., 16, Prince's Street, Cavendish Square, W.; Edward Semple, M.R.C.S., 24, St. Ann's Villas, Royal Crescent, Notting Hill, W.; Warwick C. Steele, M.R.C.P., M.R.C.S., Heathfield House, Ealing. At the suggestion of Dr. Collum it was determined to call the attention of members to the fact that the whole management of the College is in the hands of the 1,166 Fellows, the 16,258 members being absolutely precluded from expressing their views, except through the medium of the public press. Mr. James Rocheid Forrest, M.R.C.S., was elected Honorary Secretary to the Association.

Royal College of Physicians of London.—The following gentlemen were admitted Members, on April 24th, 1884:—

Coutts, John Alfred, M.B. Cambridge, Ladbroke Grove Road, W.
Murray, Hubert Montague, M.B. London, Canonbury, N.
Pringle, John James, M.B. Edinburgh, 35, Bruton Street, W.
Robinson, Luke, M.D. California, 48, Tavistock Square, W.C.
Squire, John Edward, M.D. London, 6, Orchard Street, W.
White, Ernest William, M.B. London, Kent Lunatic Asylum.

The following gentleman were admitted Licentiates, on April 24th, 1884:—

Alsop, Clement, 5, Upper Chadwell Street, E.C.
Andrews, Alexander Gordon, 44A, Coleshill Street, S.W.
Bean, Charles Edward, Guy's Hospital, S.E.
Biggs, Charles Edward Forbes, 17, Beaudesert Road, W.
Brodie, Charles Gordon, 12, South Crescent, W.C.
Butler, Gilbert Edward, Westminster Hospital, S.W.
Carnelley, Matthew, Guy's Hospital, S.E.
Carroll, Edward Richard William Charles, Cancer Hospital, S.W.
Claremont, Louis Bennett, Millbrook House, Harrington Sq., N.W.
Clark, Arthur William, Guy's Hospital, S.E.
Clarke, James Macfarlane, Infirmary, Manchester.
Coe, Henry Clark, M.D. Harvard, Detroit, United States.
Colman, Henry, Cumberland House, Kew.
Cook, Augustus Henry, 25, Dunning Road, N.W.
Davies, Sievwright Arthur, Llanelly.
Dodd, Arthur Herbert, 2, Petherton Road, N.
Ellison, William Augustine, Windsor.
Griggs, William Alfred, 11, Tressillian Crescent, S.E.
Hayes, James, Leigh, Lancashire.
Hoar, Charles Desambler, 4, Campden Hill Gardens, W.
Jones, David Llewellyn, Charing Cross Hospital, W.C.
Kendall, George, 126, Clapham Road, S.E.
Lilly, Alfred Thomas Irvine, 2, Milner Street, S.W.
London, John Edward, Berbice, British Guiana.
Lyon, Thomas Glover, 85, Asylum Road, S.E.
McDouall, Herbert Crichton, 11, Philip Road, S.E.
Maude, Arthur, 5, Bishopswood Road, N.
Milligan, Robert Arthur, 174, Coldharbour Lane, S.E.
Milnes, John George, 67c, Upper Tulse Hill, S.W.
Murray, Robert William, Guy's Hospital, S.E.
Mutis, Aureli, M.D. Columbia, 90, Charlotte Street, W.

Plant, Charles, Sandbach.
Pring, Arthur, Barnes, S.W.
Rands, St. John Outlaw, 22, Merrick Square, S.E.
Rushworth, Frank, Walton-on-Thames.
Sawers, Frederick Hayes, M.B. Toronto, Ontario, Canada.
Stace, Arthur Frank, Middlesex Hospital, W.
Street, Charles Tidbury, Bethlem Hospital, S.E.
Sturges, Frank, Beckenham.
Tireman, Arthur Lumley, Guy's Hospital, S.E.
Topham, Albert Stocks, Guy's Hospital, S.E.
Torres, Julio Zenon, M.D. Columbia, 90, Charlotte Street, W.
Tyrrell, Walter Guy Beauchamp, Great Malvern.
Wilson, Edward, 2, Cromartie Road, N.
Wright, Holland Hodgson, 3, Park Road Villas, S.E.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 24th inst., viz. :—Messrs. A. E. Garrod, Harley Street; G. A. E. Murray, Cape of Good Hope; H. W. Chambers, Lowestoft; F. C. W. Jones, Earlsdale, Pontisford; John L. Wright, L.R.C.P. Ed., Cape of Good Hope; John Reeks, L.S.A., Andover, and Thomas Jones, L.S.A., Hackney Road, students of St. Bartholomew's Hospital; H. B. Woolbert, Willesden; J. E. Blomfield, Launton; E. B. Parfitt, Notting Hill; R. H. Peck, M.A. Oxon, Penge Lane, S.E., and A. J. Turner, Hampstead, of University College Hospital; Hugh Lamb, Preston; W. H. Bowes, Herne Bay, and E. L. Brockliss, B.A. Oxon, L.R.C.P. Ed., Banbury, of Guy's Hospital; R. E. Molesworth, Kenwith, North Devon, and J. T. Williams, Warwick Street, S.W., of St. George's Hospital; A. W. Comber, Menbury Chard, of King's College Hospital; P. S. Hutchinson, Cavendish Square, of the London Hospital; and John Jenkins, L.S.A., Bristol, of the Bristol School. Six gentlemen passed in Surgery, and when qualified in Medicine will be admitted members of the College; three candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, and one for three months. The following gentlemen passed on the 25th inst., viz. :—Messrs. W. C. Fenwick, L.R.C.P. Ed., Llangollen; J. G. Milnes, L.R.C.P. Lond., Upper Tulse Hill; G. H. De'Ath, Buckingham, and T. B. Jacobson, Sleaford, of Guy's Hospital; George Kirkhouse, L.S.A., Pontardarve, and Maitland Thompson, Workington, Cumberland, of St. Bartholomew's Hospital; H. C. McDouall, L.R.C.P. Lond., Blackheath, and Obadiah Johnson, L.S.A., Sierra Leone, of King's College Hospital; W. D. Anderson, Ballachulish, N.B., and H. A. Kent, Salisbury, of St. George's Hospital; W. G. B. Tyrrell, L.R.C.P. Lond., Great Malvern, and C. J. Wilkinson, L.S.A., Coatham, Yorkshire, of St. Thomas's Hospital; Frederick Morton, Bristol, of the Bristol School of Medicine; Charles Slater, Notting Hill, of the Cambridge School; and Charles Plant, L.R.C.P. Lond., Sandbach, Cheshire, of the Manchester School. Four gentlemen passed in Surgery, and when qualified in Medicine will be admitted members of the College. Four candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for three months, five for six months, and one for nine months. The following gentlemen passed on the 26th ultimo :—Messrs. G. A. Syme, M.B. Melb., Melbourne, of the University of Melbourne; H. G. Sworn, L.K.Q.C.P. Ire., Holloway, and F. H. Lane, L.S.A. Shepherd's Bush, of University College Hospital; J. W. White, L.K.Q.C.P. Ire., Camdem Road, N., of the Glasgow School; P. A. D. Head, L.S.A., Staines, and Ebenezer Bryceson, L.S.A., Shooter's Hill, of the London Hospital; William Urwick, L.S.A., St. George's Road, S.W., of the Westminster Hospital; R. T. Finch, Rochampton, and J. R. Collyer, Enfield, of St. George's Hospital; F. R. Humphreys, L.S.A., Finsbury, of Guy's Hospital; G. H. Monks, M.D. Harvard, Boston, U.S., of the Harvard University; J. T. Cheves, L.S.A., Devonport, of Kings College Hospital; B. G. Pullin, L.S.A., Sidmouth, Devon, of St. Bartholomew's Hospital.—Five gentlemen passed in surgery, and when qualified in medicine will be admitted members of the College, one candidate was referred for three months, and four for six months. The following gentlemen passed on the 28th ultimo :—Messrs. C. E. F. M. Biggs, L.R.C.P. Lond., Hammersmith; W. T. Strugnell, L.S.A., Portsdown Road, and W. R. de Morrini, L.R.C.P. Lond., Myddelton Square, of St. Bartholomew's Hospital; C. H. Pirsse, L.S.A., New Bond Street, and F. W. Kindle, King's Lynn, of Kings College Hospital; R. W. Murray, L.R.C.P. Lond., Blackheath, and S. H. Agar, L.S.A., Henley-in-Arden, of Guy's Hospital; D. P. Gaussen, M.D. Dub., Belfast, of the Belfast School; F. S. Turner, Chiswick, of University College Hospital, and A. Perry, L.S.A., Philpot Street, E., of the London Hospital. Eight gentlemen were approved in Surgery, and when qualified in medicine will be admitted members of the College. Three candidates were referred for three months, and five for six months. The following gentlemen passed on the 29th ultimo, viz. :—Messrs. W. H. Bailey, L.S.A., Colney Heath; S. M. P. Roberts, B.A., Cantab, Sheffield, and H. Parker, Highgate, of St. Bartholomew's Hospital; P. Jackson, L.S.A., Torrington, Devon, and P. R. Mander, L.S.A., Grimsbury, of the Westminster Hospital; A. J. Dixon, L.S.A., Donnington, and E. E. Newnham, L.S.A., Somersham, of the London Hospital; E. H. Freeland, L.S.A., Chichester, of the Middlesex Hospital; H. H. Lankester, L.S.A., West Kensington, of St. Thomas' Hospital; and H. C. E. Cooper, Finsbury Square, of Guy's Hospital. Five gentlemen were approved in surgery, and when qualified in medicine will be admitted members of the College; six candidates were referred for six months, and two for three months. The following gentlemen passed on the 30th inst.:—Messrs. C. Alsop, L.S.A., Teignmouth, A. C. Frames, L.S.A., Sidcup, and J. H. Menzies, L.S.A., Gwendwr Road, of St. Bartholomew's Hospital; H. H. Graham, M.B. Toronto, Toronto, of the University of Toronto; M. W. Roe, L.S.A., Melbury Osmond, and A. E. Hayward, L.S.A., Maxilla Gardens, W. of St. George's Hospital; A. C. Deare, L.R.C.P. Lond., Shepherd's Bush, of Guy's Hospital; W. A. Wetwan, L.S.A., Bridlington Quay, and F. Hichens, L.S.A., Redruth, of the London Hospital; P. E. Maitland, L.R.C.P. Lond., Albert Street, N.W., of University College Hospital. Four candidates passed the examination in surgery, and when qualified in medicine and midwifery will be admitted members of the College. Three candidates having failed to acquit themselves to the satisfaction of the Court, were referred to their further professional studies for three months, and seven for six months.

UNIVERSITY OF ST. ANDREW'S.—The annual graduate ceremony took place on the 25th ultimo, when Professor Bell Pettigrew, Dean of the Faculty of Medicine, presented the following for the degree of M.D.:—

Kenneth Mackenzie Chisholm, L.R.C.P. Ed., L.R.C.S. Ed., Radcliffe, Manchester; James Clapperton, L.R.C.P. Ed., L.R.C.S. Ed., Broughton, Winchester; Joseph Farrar, L.R.C.P. Ed., L.R.C.S. Ed., Morecambe; Thomas Frederic Higgs, L.R.C.P. Ed., M.R.C.S. Eng., L.S.A. Lond., Dudley; Edwin Hollings, L.R.C.P. Ed., L.F.P.S. Glas., London; Samuel Lloyd, M.R.C.S. Eng., L.S.A. Lond., London; James Lindsay Howison Herbert Porteous, M.R.C.P. Ed., F.R.C.S. Ed., Pathhead, Fife; William Smith, L.R.C.P. Ed., L.S.A. Lond., F.R.C.S. Ed., Eccles, Manchester; Edward Denham Tomlinson, M.R.C.S. Eng., L.S.A. Lond., L.R.C.P. Lond., A.M. Department; and Adam Wilkinson, M.R.C.S. Eng., L.S.A. Lond., L.R.C.P. Ed., M.D. Brussels, Shaftesbury.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 24th, 1884 :—

Allen, Charles, 36, Bedford Square, W.C.
Barber, Halford Vaughan, 108, Sandmere Road, S.W.
Carrington, Geo. Hedwig, Albert Street, Eccles, Manchester.
Fisher, Thos. Hammond, Manchester Road, Southport, Lancashire.
Grenfell, Henry Osborne, Calstock, Cornwall.
Reily, Alex. Yates, 34, Great Western Road, W.
Roberts, Jno. Saunders Hughes, Picton Place, Swansea.
Soutter, James, 3, Tremayne Terrace, Anlaby Road, Hull.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—At the April sittings of the examiners, the following gentlemen passed the primary professional examination of the Faculty:—Edward Ball, Wm. G. Booth, Charles S. Bowker, Morris G. Davies, Charles Dolman, John Eatock, Walter C. Halpin, Arthur Lindley, Archibald M'Arthur, Arthur R. Owst, Joseph S. Sergeant, Arnold E. Thorpe, Wm. F. C. Woodhead, Horan K. Young. The following passed the final examination for the licence of the Faculty :—John C. Aldred, Dore, Sheffield; Frederick H. Davis, Dawley; Wm. Duncan, Larne; James Herron, M.D., London; Edward Hopkins, Glasgow; Thomas M'Ilroy, M.D., Newtonards; James Miller, London; Wm. S. Pratt, Weedon; Geo. C. Richardson,

Glasgow; Thomas Russell, Glasgow; Robert W. Sclater, Kirkwall. The following passed the final examination for the double qualification granted conjointly by the Faculty, and by the Royal College of Physicians, Edinburgh:—Haggarth M. Addison, London; Wm. A. Algie, Glasgow; George B. Buttery, Govan; David P. Gage, Kilwinning; Henry A. Keegel, Ceylon; James M'Ilwrath, Glasgow; Ruys D. Morgan, Glasgow; Alexander A. Sutton, Glasgow; Edward Thomas, Glasgow; George D. Trevor-Roper, Maidenhead.

Royal College of Physicians.—At the last meeting of the Royal College of Physicians, the Fellows resolved that, instead of giving a *Conversazione* this year, the College shall have a Banquet, on a day to be fixed by the President. A committee was nominated to make the necessary arrangements.

The Hospitals' Association. — The second general meeting of the Hospitals' Association was held on Wednesday, April 23rd, at the rooms of the Medical Society of London, No. 11, Chandos Street, Cavendish Square. The subject under discussion was, "How far should our Hospitals be Training Schools for Nurses?" Papers were contributed by Dr. Bristowe, F.R.S., and Miss Eva Lückes, Matron of the London Hospital. For particulars as to membership, &c., application should be made to the secretary, at the office of the Association, No. 1, Adam Street, Adelphi, W.C. Ladies, as well as gentlemen, are eligible for election. Visitors are admitted to the meetings on the personal introduction of members or associates.

The Study and Cure of Inebriety. — Dr. Norman Kerr, the president of this newly-formed society, entertained a large number of guests, chiefly members of the medical profession, at an inaugural luncheon on Friday, the 25th ult. In the augural address which followed, Dr. Kerr laid stress upon the fact that inebriety is often a disease. The object of the society, he said, was to investigate, by strictly scientific methods, the various causes of inebriety, and to educate the professional and public mind to a knowledge of those causes, and to the recognition of the physical aspect of habitual intemperance.

The Health of Calcutta.—The *Times* Correspondont telegraphs that the effect of the rainfall on the health of Calcutta has been most marked. The cholera and small-pox epidemics which were raging with great violence in the native town, although still severe, have decidedly abated. It is to be hoped, he continues, that the exceptionally heavy mortality of the last six weeks will rouse the Calcutta Corporation to the absolute necessity of taking more active steps to provide a water supply for the entire city, to sweep away the filthy groups of huts, and to fill up the stagnant tanks, which constitute a permanent source of danger and disgrace to the Indian metropolis. The fact that the European quarters have been entirely free from epidemic disease gives one more proof, if any were needed, of the important part played by foul water in propagating cholera.

Naval Medical Department.—The following appointments are announced:—Deputy-Inspector-General George Mason, M.D., to the Chatham Division Royal Marines, *vice* Deputy-Inspector-General Jackson; Deputy-Inspector-General Francis W. Davis, to Bermuda Hospital, *vice* Deputy-Inspector-General Mason; Deputy-Inspector-General Gordon-Jackson, to Haslar Hospital, *vice* Deputy-Inspector-General Davis; Belgrave Nimmo, M.D., to the Chatham Division Royal Marines, temporarily; Valentine Duke, staff-surgeon, to the *Duncan*, additional, for temporary service, *vice* Davis; and Thomas C. Hickey, M.D., staff-surgeon, to the *Swiftsure*, additional, for Esquimalt sick quarters, *vice* Hervey.

South London School of Pharmacy, 325, Kennington Road.—The following prizes were presented to the successful competitors on Saturday, April 19th, 1884:—Senior Chemistry: F. Armstrong, Medal; F. W. Ashton, Certificate. Junior Chemistry: Thos. B. Blyton, Medal; F. W. Taylor and W. Holme, Certificates (equal). Botany: F. W. Taylor, Medal; G. D. Cooper, Certificate. Materia Medica: R. M. Stewart, Medal; T. J. Clarke, Certificate. Practical Pharmacy and Dispensing: F. A. Moss, Medal; R. M. Stewart, Certificate. Extra Certificates to Messrs. Atherton, Buxton, French, Hall, and Worfolk.

Vaccination in Scotland.—The Registrar-General for Scotland notes in his annual report the steadily increasing number of instances of infant vaccination being postponed on medical authority. No explanation, however, is suggested of this "noticeable feature" in the returns, although in 1882—the last year tabulated—the cases were as many as 495 above the average of the previous ten years. It is satisfactory to observe that the deaths from small-pox in 1882 were only four, being the lowest recorded since the outbreak of 1872, when 2,446 lives were sacrificed in Scotland to this terrible disease. The return for 1882, however, is only an estimate, as is that for 1883, when there appears to have been a slight increase, twelve deaths in the latter year being attributed to this cause.

Charitable Bequests.—The late Mr. David Brown, of Glasgow, has bequeathed to the Royal Infirmary, the Western Infirmary, and the Sick Children's Hospital, Glasgow, 500*l.* each; to the Eye Infirmary, the Maternity Hospital, the Lenzie Convalescent Home, the Dunoon Seaside Home, the Kirkintilloch Home for Incurables, and the Colquhoun Bequest for Incurables, 100*l.* each.

Diseased Meat.—A case, showing the importance of an efficient inspection of meat markets is recorded from Leicester. Four children and their parents were seized with violent illness as the result of eating calf's liver, and one of the children, aged 9, died. It was found on investigation, that the liver came from an animal which had been slaughtered for disease.

Munificent Gift to a London Hospital.—Mr. William King, of Ovington Gardens, South Kensington, a gentleman well known in art circles, has bequeathed the sum of 100,000*l.* to St. George's Hospital, Hyde Park, in the affairs of which he has taken a considerable interest for some time.

Social Science Association.—The Standing Committee on Health met on Tuesday, Sir Richard Temple, Bart., in the Chair, when the provisions of the "Dwelling Houses Inspection Bill" were considered. A resolution was unanimously passed regretting that as its clauses were of such an impracticable and unjust character, the Committee were unable to give the measure their support.

Coronership of the Duchy of Lancaster. — Mr. Langham has been appointed to this office in the place of the late Mr. W. J. Payne, whose deputy he had formerly been. The Duchy comprises the districts of Edmonton, Enfield, and Southgate, in Middlesex; the Liberty of the Savoy, in Westminster; and the parish of Clapham, in Surrey.

Death from the Bite of a Panther.—A young man has died at Shottenden, probably from tetanus, the sequel of a wound of the elbow, received in a struggle with a panther in China some month previously.

Royal Institution.—Professor Gamgee, M.D, will begin a course of five lectures on "The Physiology of Nerve and Muscle," on Tuesday next (May 6th).

Samaritan Free Hospital.—The Earl of Dalhousie has consented to preside at the biennial dinner on behalf of this charity, to be held at Willis's Rooms, on Tuesday, May 20th.

London Temperance Hospital.—The foundation stone of the new wing of this hospital was laid on the 24th ult. by the Duke of Westminster.

Opium-Smoking in the United States.—In his report on the drug trade for 1883, Mr. Robbins, of New York, calls attention to the fact that, while the importation of crude opium for medicinal purposes has varied but little (229,012 lbs. in 1883, compared with 227,126 lbs. in 1882) the increase in the importation of opium manufactured for smoking purposes, has been enormous. There were imported in 1883 298,153 lbs. of this vicious preparatiod, against 106,221 lbs. in 1882; and the Government received from it a customs revenue of nearly $200,000,000.

CHARITABLE FÊTE.—A floral fête and bazaar will be held in the Knightsbridge Riding School, early in July, in aid of the funds of the Surgical Appliance Society, for the relief of the crippled poor.

CRIMINAL STATISTICS.—An attempt is being made by some of the American Prison Societies to establish at Washington a permanent central office for the collation of the criminal statistics of the United States.

CONSUMPTION OF BEER IN ITALY.—This is ever on the increase, a fact which has its importance in a medical and hygienic point of view, inasmuch as this "invasion of northern drinks" must influence the public health. The use of beer is favoured, especially in the great cities, still more than by mere fashion, by the fact that the "national drink" undergoes by manipulation so many changes that it scarcely retains anything more of wine than the name. The increased consumption of beer may be judged of by its importation, for while this during the five years 1870-76 amounted to 26,681 hectolitres, it rose during the next three years to 49,609, and in 1880 to 43,110 hectolitres. The import of bottled beer has also doubled in amount since 1870-76.—*Annali Universali di Medicina, March.*

NAVAL MEDICAL SERVICE.—The following surgeons' appointments were made at the Admiralty on Saturday:—A. D. Peyton, to the *Firebrand*, when commissioned; H. Meikle, to the *Impregnable*, for temporary service; S. F. Hamilton, to the *Dolphin*, when commissioned; and D. B. Bookey to the Plymouth Division of the Royal Marines.

THE Library of the Royal College of Surgeons will be closed to-day (Friday, May 3rd) for the purposes of the Examinations.

APPOINTMENTS.

BARRS, A. G., M.D., M.R.C.P.—Assistant Physician to the Leeds General Infirmary.

CLARKE, W. B., M.A., M.B., F.R.C.S.—Surgeon to the West London Hospital, *vice* Alfred Cooper, F.R.C.S., resigned.

CHALMERS, GEORGE, B.M. & M.C. Edin.—To the Newbottle District.

HAWKINS, F. H., M.B.—Resident Physician to the Royal Infirmary of Edinburgh.

JACKSON, HENRY, M.R.C.S. Eng., L.S.A. Lon.—Medical Officer of Health for the Borough of Barnstaple, *vice* A. Fernie, M.D., deceased.

JACOB, E. H., M.A., M.D.—Assistant Physician to the Leeds General Infirmary.

MUDGE, THOS., M.R.C.S. Eng., L.R.C.P. Lond.—To the Western District.

SUTTON, H. M., M.R.C.S., L.R.C.P., L.S.A.—Junior Resident Medical Officer to the Great Northern Central Hospital.

WEISS, H. F., F.R.C.S.—Assistant Surgeon to the West London Hospital, *vice* William Bruce Clarke, M.A., M.B., F.R.C.S.

VACANCIES.

BRAINTREE UNION.—Medical Officer for the Finchingfield District, in succession to Mr. E. Dawson, resigned. Area, 8,387 acres. Population, 1,807. Salary, £80 per annum.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, VINCENT SQUARE, WESTMINSTER, S.W.—Physician. Candidates must be graduates in Medicine, and Members of the College of Physicians of London. Applications, with testimonials, to be sent to the Honorary Secretary not later than May 7th.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.—Resident Medical Officer. (*For particulars see Advertisement.*)

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND STREET, W.C.—Assistant Physician. (*For particulars see Advertisement.*)

SALOP INFIRMARY, SHREWSBURY.—House Surgeon. Salary £100 per annum, with board and residence. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and hold a qualification to practise medicine. Testimonials, with certificates of qualifications, to be addressed to the Board of Directors, not later than May 13th.

WEST NORFOLK AND LYNN HOSPITAL.—House Surgeon and Secretary. Salary £100 per annum, with board, lodging, &c. Applications, with testimonials, to be sent to the Secretary, on or before May 9th.

DEATHS.

DAVIDSON, THOMAS, M.R.C.S., B.A., at 44, Leamington Road Villas, W., on April 27th, aged 53.

BARCLAY, A. W., M.D., at Whitney Wood, Stevenage, Herts, on April 28th, aged 66.

TAYLOR, THEOPHILUS, M.R.C.S., L.S.A., at 94, Ebury Street, Eaton Square, S.W., on April 23rd, aged 60.

WOOD, JOHN, Brigade-Surgeon, at Beacon Hill, Lichfield, on April 27th, aged 58.

NOTES, QUERIES, AND REPLIES.

THE WHEATLEY MEMORIAL FUND.

[TO THE EDITOR OF THE MEDICAL TIMES.]

DEAR SIR,—Will you kindly insert in your columns the second list of subscriptions to the Wheatley Memorial Fund? May I also be permitted to draw the attention of the Fellows of the Medical and Chirurgical Society to the existence of this fund, lest the circular issued in March by the Wheatley Memorial Committee have failed to reach a certain number of those who would wish to contribute.

Mr. John Cooper Forster, 29, Upper Grosvenor Street, is the Treasurer; and cheques may be sent to him, or direct to the Wheatley Memorial Fund, Union Bank of London, Argyll Place, Regent Street, London, W.

I am, dear Sir, yours, &c.,
BERKELEY HILL, Hon. Sec.

53, *Berners Street, W.*,
29*th April*, 1884.

Amount already announced £377 10s.

Omitted from the previous list:—Dr. Begley, £5 5*s.*; Dr. Habershon, £5 5*s.*; Mr. W. H. Freeman, £2 2*s.*

Received since the last announcement:—The Pathological Society, £50; The Obstetrical Society, £25; Mr. James Dixon, £10 10*s.*; Mr. Lawson Tait, £10 10*s.*

The following have sent five guineas each:—Mr. A. E. Durham; Sir William Gull, Bart; Dr. John Harley; Dr. Pavy; Dr. Quain; Dr. Radcliffe; Dr. Eustace Smith; Dr. W. J. Smith (Weymouth); Dr. Waring; Sir Spencer Wells, Bart; Mr. A. Willett; Dr. C. J. B. Williams.

The following have sent three guineas each:—Mr. Marcus Beck; Dr. Brodie; Dr. Church; Dr. Septimus W. Sibley; Mr. Knowsley Thornton; Dr. John Williams.

The following have sent two guineas each:—Mr. Henry Butlin; Dr. Buzzard; Dr. Cheadle; Mr. G. Cowell; Mr. Frederick J. Gant; Dr. Gee; Mr. Rickman Godlee; Brothers Mintern; Mr. Edward Newton; Mr. Robert W. Parker; Dr. Charles D. Phillips; Mr. T. Sympson (Lincoln); Dr. Reginald Thompson; Mr. Francis Vacher (Birkenhead); Mr. G. Wallis (Cambridge); Mr. Joseph Zaehnsdorf.

The following have sent one guinea each:—Dr. Allchin; Mr. Hamilton Cartwright; Professor Charcot; Dr. Cholmeley; Mr. Andrew Clark; Mr. N. Davies-Colley; Dr. Gairdner (Glasgow); Mr. Warrington Haward; Mr. H. G. Howse; Dr. Humby; Mr. Howard Marsh; Mr. John Merriman; Dr. Bernard O'Connor; Dr. Vintras.

The following have sent one pound each; Dr. Aitken, F.R.S.; Professor Esmarch; Dr. Hannover (Copenhagen).

Mr. J. B. Scriven, 10*s.*; Dr. John Candy, 5*s.*

W. Spry.—You will probably obtain them by applying at the College.

H. Marshall.—Papers on the subject will be shortly presented to the Houses of Parliament.

A Non-Crematonist.—Your letter is better adapted for our advertisement, than for our correspondence, columns.

COMMUNICATIONS RECEIVED—

Dr. H. W. ACLAND, C.B., Oxford; Dr. M. D. MACUNA, Pontypridd; Mr. G. R. JESSE, Macclesfield; Mr. A. SMITHER, London; THE HON. SECRETARIES, ODONTOLOGICAL SOCIETY, London; Mr. W. GURNER, London; THE SECRETARY, APOTHECARIES' SOCIETY, London; Mr. WM. SPRY, London; Dr. NORMAN KERR, London; Dr. SAMUEL WILKS, London; THE SANITARY COMMISSIONER FOR THE PUNJAB, Lahore; THE REGISTRAR-GENERAL FOR IRELAND, Dublin; Dr. WM. EWART, London; Dr. G. COATES, London; Dr. HERMAN, London; Dr. CLIFFORD BEALE, London; Dr. WILLOUGHBY, London; Dr. KINGSTON FOWLER, London; Mr. S. PHILLIPS DAY, London; Mr. BACOT, Seaton, Devon; Mr. ALEX. MACKENZIE CAMERON, Melbourne; THE SECRETARY, UNIVERSITY OF ST. ANDREW'S; THE SECRETARY, THE MEDICAL, PHARMACEUTICAL, &c., EXHIBITION; THE SECRETARY, ROYAL INSTITUTION, London; THE HON. SECRETARY, WHEATLEY MEMORIAL FUND, London; Mr. T. M. STONE, Wimbledon; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY, CLINICAL SOCIETY OF LONDON; THE HON. SECRETARIES, EPIDEMIOLOGICAL SOCIETY OF LONDON; Dr. GEO. E. YARROW, London; THE SECRETARY, OBSTETRICAL SOCIETY, London; THE HON. SECRETARY, MEDICAL SOCIETY OF LONDON; THE COMMITTEE OF MANAGEMENT OF ST. MARY'S HOSPITAL, London; THE SECRETARY, PATHOLOGICAL SOCIETY OF LONDON; Dr. C. J. EGAN, King William's Town; Dr. W. WYNN WESTCOTT, London; Dr. JACOB, Dublin; THE SECRETARY, GARDENS AND PLAYGROUNDS ASSOCIATION, London; THE SECRETARY, ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS, London.

BOOKS RECEIVED—

Over-Legislation in 1884—Annual Report of the Featherstone Local Board—The Life and Work of St. Paul, by F. W. Farrar, D.D., Part 28—Cassell's Encyclopædic Dictionary, Part 4—Cassell's Popular Gardening, Part 1—Cremation, by Sir Henry Thompson, F.R.C.S., M.B.—Mittheilungen aus der Chirurgischen Klinik zu Tübingen, von Dr. Paul Bruns—The Surgical Treatment of Congenital Abnormalities, by William Thomas, F.R.C.S.—Specificity and Evolution of Disease, by W. J. Collins, M.D., B.S., B.Sc.—Report of the Association for the Oral Instruction of the Deaf and Dumb, for 1883—Report on the Health, Sanitary Condition, &c., of Kensington, from March 23 to April 19—Disease-Prevention, by C. B. Fox, M.D., F.R.C.P.—The Cinchona Barks, by F. Fluckiger, Ph.D.—An Index of Surgery, by C. B. Keetley, F.R.C.S.—On Insanity and Nervous Disorders, by Thomas More-Madden, M.D., F.R.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Revista de Medicina — Bulletin de l'Académie de Médecine — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynäkologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Société Médicale—Weekblad—The Liverpool Mercury, April 25th—The Asclépiad—Detroit Lancet—The Scottish Review—El Ensayo Medico—The Analyst—Edinburgh Medical Journal—The Veterinarian.

APPOINTMENTS FOR THE WEEK.

Friday, May 2 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m., Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m.—Prof. Judd, "Krakatoa."

Saturday, May 3.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Mr. H. M. Westropp, "Roman Archæology: The Forum."

Monday, May 5.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

MEDICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. C. Theodore Williams, Annual Oration, subject—"The Relation of the Medical Profession to other Professions." General Meeting and Conversazione.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m.—Casual Communications by Messrs. Storer Bennett, E. G. Betts, J. H. Mummery; Mr. E. G. Betts will read a Paper on "Observations on the Teeth of certain Rodents."

ROYAL INSTITUTION, 5 p.m.—General Monthly Meeting.

Tuesday, May 6.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

MEDICO-PSYCHOLOGICAL ASSOCIATION, 4 p.m.—Quarterly Meeting, at Bethlem Hospital. Dr. Hayes Newington, "Unverified Prognosis;" Dr. Bonville Fox, "Exaltation in Chronic Alcoholism;" Dr. Mercer will move Resolutions in relation to the "Transference of Lunatics of Foreign Nationality to their own Countries." Council Meeting at 3.30 p.m.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. West, "Three Cases of Mediastinal Tumours;" Mr. Treves, "A Case of Supposed Actino-Mycosis;" Dr. Burney Yeo, "Cast from the Trachea;" Dr. Charlewood Turner, "Lardaceous (?) Syphilitic Supra-renal Capsule;" Mr. Sydney Jones, (1) "Multiple Exostoses. Exostosis and Loose Cartillage from the Knee-joint" (card), (2) "Stomach after Excision of Cancer of Pylorus" (card); Dr. Percy Kidd, (1) Myo-fibroma of Stomach," (2) "Tuberculous Ulceration of Pharynx" (card), (3) Polypoid Tumour of the Left Ventricle" (card); Mr. Lockwood, Cartilage containing Tumour of the Scalp;" Dr. Silcock, "Malignant Lymphoma of the Abdomen;" Dr. Carrington, "Misplaced Kidneys" (card); Dr. Hale White, (1) Atrophied Bones of the Arm after Post-Hemiplegic Rigidity" (card), (2) "Intestinal Obstruction from old Pelvic Adhesion" (card), (3) "Thoracic Aneurysm in a Woman" (card); Dr. Turner, "Pistol-shot Fracture of Cranium" (card); Dr. Hobson, "Malignant Disease of Cæcum" (card); Mr. Sutton, "Diseases of the Ductless Glands in Wild Animals" (card); Mr. Swinford Edwards, "A Cyst in the Ulnar Nerve" (card); Mr. Lane, "Specimen of Ununited Fracture" (card); Mr. Horsley, for Mr. Heath, "Recurrent Myxœdemomatous Tumour" (card); Mr. Knowsley Thornton, "Cystic Tumour of Spleen" (*recent*); Dr. Goodhart, "Tumour of the Pituitary Body of an Anutis" (card); Dr. Sainsbury, "Tubercle of Brain" (card); Mr. Alban Doran, "Broad Ligament Cyst developed above the Fallopian Tube" (card).

ROYAL INSTITUTION, 3 p.m.—Prof. Gamgee, "Nerve and Muscle."

Wednesday, May 7.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m.—Specimens will be shown by Dr. Cleveland, Dr. Matthews Duncan, Dr. John Williams, Mr. Alban Doran, and others. Papers—Dr. Arthur Mitchell, "Strong Mental Emotion affecting Pregnant Women as a cause of Idiocy in the Offspring;" Dr. Mathieson, "Case of Extra-Uterine Gestation—Delivery of Living Child per Vaginam—Removal of Placenta —Recovery."

Thursday, May 8.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 p.m. —Living specimens at 8 p.m. Dr. Stephen Mackenzie, "A case of Extreme Tortuosity of the Retinal Vessels;" Mr. Nettleship, (1) "Peculiar Changes in the Choroid after Papillitis," (2) "A case of Central Choroiditis;" Mr. Adams Frost, (1) "Ossification of Choroid, causing repeated attacks of Sympathetic Irritation," (2) "Recent Injury with detachment of Retina and Choroid," (3) "Detachment of Retina and organised Blood Clot after an old injury." Communications, &c.: Dr. C. E. Fitzgerald, (1) "An Instrument for showing the Action of Accommodation," (2) "On Acute Spasm of the Accommodation;" Messrs. Gunn and Anderson, "A case of Nerve Disease with Ocular Symptoms, including alleged Monocular Diplopia;" Mr. Higgens, "Remarks on Extraction of Cataract;" Mr. A. S. Morton, "Case of Hæmorrhage at Region of Macula;" Mr. Nettleship, (1) "Cases of Recovery from Amaurosis in Infants," (2) "Cases of Retro-ocular Neuritis;" Mr. Adams Frost, (1) "Ciliary Staphyloma, following Iridochoroiditis," (2) "Sympathetic Ophthalmitis subsequent to Excision."

ROYAL INSTITUTION, 3 p.m.—Prof. Dewar, "Flame," &c.

Friday, May 9.

CLINICAL SOCIETY OF LONDON, 8 p.m.—Mr. Clutton, "A Case of Intestinal Obstruction caused by a Diverticulum, successfully treated;" Mr. Christopher Heath, "Cases Illustrating the Treatmeant of Fracture of the Patella;" Dr. Whipham. "Case of Hydrocephalus of old standing, Insanity, Death;" Mr. William Anderson, "Case of Pyelo-Lithotomy;" Mr. Charters G. Symonds will show a case of "Ruptured Brachial Plexus."

ROYAL INSTITUTION, 8 p.m.—Prof. W. R. Smith, "Mohammedan Mahdis."

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NOTE ON THE RELATIONS OF OVULATION AND MENSTRUATION.[1]

By LAWSON TAIT, F.R.C.S.

THE following extract is taken from one of the most important and most widely read text-books on physiology which has appeared in my lifetime, and it may be regarded as representing in its entirety the general belief on the matters referred to.

"The state of the female generative system during the continuance of menstruation appears to be analogous to the heat or periodic sexual excitement of the lower animals, some of which have a sero-sanguinolent discharge at that period, and among many of which the ova are entirely extruded by the female before the spermatic fluid of the male reaches them, this occasionally taking place even in birds. There is good reason to believe that in the human being the sexual feeling becomes stronger at the period of menstruation, and it is quite certain that there is a greater aptitude for conception immediately before and immediately after that epoch than there is at any intermediate period."

"The ova when set free from the ovaries by the rupture of the ovisacs and the giving way of their several envelopes, are received by the fimbriated extremities of the Fallopian tubes, which, during the period of sexual excitement, appear to be closely applied to the surfaces of the ovaries."

Finally, without exception so far, I have found the text-books assert that menstruation is the result of ovarian excitement due to the maturation of a Graafian follicle, and the readiness for the escape of its ovuli. If an exception is to be given, it is a doubtful one, and exists in the words of Carpenter, who says that "there is a periodic return of ovarian excitement, which *tends* to the maturation and extrusion of ovules, though it may not always reach that point; whilst there is also a periodic turgescence of the vessels of the lining membrane of the uterus, which *tends* to the production of a decidual membrane, but that these two periods, though usually coincident, are not necessarily so, and that either change may occur without the concurrence of the other."

I doubt if I have been able to understand this last quotation—I doubt very much if it can be understood; but it seems to me that the author having read Ritchie's account of the evidence which led up to his brilliant discovery, was unable to appreciate and accept it, and was equally unable to surmount its convincing logic.

The first extract I read to you contains, as I have said, an expression of the general belief concerning the relations between ovulation and menstruation, and it is in my belief wrong in every particular.

[1] Read before the Midland Medical Society, January 23rd, 1884.

The first statement that menstruation in woman is analogous to œstrus in lower animals is one which is entirely wrong, and from it many of the subsequent errors have sprung. In the last edition of my book on "Diseases of the Ovaries," I dismiss this question with the sentence, (p. 27) "that menstruation is a new feature in sexual life introduced high up in the scheme, and has no analogy to the œstrus or rut among the lower animals, is surely proved by the close reasoning of Arthur Farre (article "Uterus," *Encyclopædia of Anatomy and Physiology*)."

In such a work it was not necessary to argue this question at length, and in thus giving my authority I thought I had discharged my duty. Not so, however, think some of my critics. One of them recently, in a well-known English journal, has attacked me on my ignorance of the physiology of menstruation; and I am therefore disposed to make one more effort to uproot the mistaken views on menstruation still held almost universally, as if Ritchie, Kesteven, Farre, and Jackson had never written on the subject.

In the article I have just referred to, Arthur Farre shows that with the facts of congestion of the organs and periodicity of return, with an occasional coincidence of an extrusion of an ovum, as ascertained by a few rare *post-mortem* examinations, the analogy between menstruation and rut ends; and here I may add, that even in the matters of periodicity and congestion the analogy is faulty. The congestion which in women reaches such a degree as to permit of free loss of blood, in animals goes so far as to permit only of the exudation of a quantity of mucus for the lubrication of the passages and the discharge is rarely tinged with blood in some of the higher domesticated animals. In such an animal as the guinea-pig, where the whole process can be watched with ease, and where I have watched it in hundreds of instances, not a blood corpuscle can be found in the mucus, unless the examination be made just as the cohesion of the vestibule is being undone, that is, really before the rut has begun. The periodicity of the rut in animals is far too faulty to be compared with the regular menstruation of the majority of women.

Dr. Farre points out that it is during œstrus, and then only, that the females among the lower animals will receive the males. I may add to this, that there are some animals whose anatomy is so peculiar that it is possible for them to receive the male at the œstrus only. Thus, in the guinea-pig there is no vagina at all, save for about forty-eight hours, at the period of heat. It is also very well known that in many animals the male is equally affected, and that it is during the heat of the female only that semen is secreted by the male. Save during the œstrus of the female, the testicles of the male rat are hardly perceptible, whilst during this period they are of enormous size. "Now," says Dr. Farre, "with regard to the human subject, whatever may be possible during menstruation, yet essentially the intervals of the menstrual act are the times of fertility in women." This is absolutely proved by the fertility of the Jewish women, with whom intercourse is suspended for eight days after the appearance of menstruation, and in strict observers of Rabbinical rule for thirteen days.

The correlative statement made in the extract, with which I opened this paper, that it is at the menstrual period that women have stronger sexual desires, is one for which, I think, there is not the slightest foundation. It is manifestly a point on which it is difficult, almost impossible, to obtain evidence, either accurate or extensive; but what evidence I have been able to procure directly and very emphatically contradicts the statement. What I allude to is the statements of men with whom it has been necessary to discuss their marital relations, and I find that neither in man nor in woman is there any other than a distinct feeling of repulsion to the marital act during menstruation.

Here, then, we have not only an absence of analogy between œstrus and menstruation, but an absolute indication that they are distinct functions; and in women we have no indication whatever of an œstrus, so far as the sexual life is concerned. Let us see if we have any indication of it as far as the maturation and egress of ova are concerned, since these processes form prominent features of the œstrus of animals. The main question of the enquiry is really this: has the so-called ovarian excitement, alleged to arrive at the ripening of a follicle, anything to do with the process of menstruation?

Subsidiary to this is another issue raised by the consequent assertion that the follicular discharge occurs once a month. Finally, we have to give an answer to the very pertinent question of Dr. Reeves Jackson:— "Will the ovulation theory of menstruation stand?"

Toiling through the writings of physiologists and physicians previous to 1843, seeking for information on the development of our knowledge of the anatomy, functions, and diseases of the ovary, is, I think, one of the most unsatisfactory employments in which anyone can engage. It is perfectly true that, here and there, as in the pages of Morgagni, we get a perfectly accurate observation, yet, on the whole, the story is but a wearisome repetition of what we experience now-a-days. No sooner is a bacillus discovered, than it is ridden to death, and every disease is ascribed to its omnipotence and omnipresence. So was it in Leeuwenhoeck's time, that the discovery of the spermatic animalculæ raised a cloud of false theory, and still more false observation, the obstructive results of which have not yet passed away.

No completely accurate statement of the function of ovulation was made till the appearance of the papers by Dr. Ritchie, of Glasgow, in the old *London Medical Gazette* of 1843. These papers were epoch-making, and from them dates also the inception of accurate views of ovarian pathology. It has always been to me a matter of wonder that those papers have had so little influence. They have not been neglected; they have been and are now frequently quoted, and their conclusions have been often and I believe completely confirmed, yet the majority of the writers on physiology and gynæcology wander on as if the papers had never been published.

The papers are of the most business-like character; a dry detail of facts, and from the conclusions there is no escape. The first of these which may engage our attention is that "the ovaries of newly-born infants and of children are occupied sometimes numerously by Graafian vesicles or ovisacs, which are highly vascular as early as the sixth year, and vary in size from the bulk of a coriander seed to that of a small raisin; in the fourteenth year, at which time also they are filled with their usual transparent granular fluid, their contained ova can be detected, and their coats are so elastic that their contents on their rupture may be projected to at least twelve inches; the existence of menstruation not being essential therefore to these conditions, either as a cause of them, or as an effect, and the possibility even at this age, should rupture of the follicles occur, of their contained ova being conveyed to the uterus along the Fallopian tubes, kept patent by their peculiar secretion, will be admitted."

"The Graafian vesicles found in the ovaries prior to menstruation are found, as they also are in every other period of life, in continual progression towards the circumference of the glands which they penetrate, discharging themselves by circular-shaped capillary sized openings in the peritoneal coat, the presence of the catamenia being thus no indispensible pre-requisite to their rupture."

The establishment of menstruation does not neces

sarily give rise to any immediate modification in the manner in which the ovisacs are discharged, or in the subsequent changes which these bodies undergo. The ovisacs of the human female do not require the establishment or presence of menstruation for their development or rupture.

Graafian follicles of some size were found in the ovaries for fifteen years after the critical age, and the discharge of attenuated minute vesicles, apparently simple cells, from the surface of the glands appeared to terminate only with life.

Dr. Ritchie gives an extremely interesting account of the development of the ovular theory of menstruation having risen apparently in one of the essays of Sir Everard Home. When this author confined his original researches to hunting up some unpublished memoranda of John Hunter, he never went very far wrong, but when his originality was intrinsic his blundering became intense. Dr. Power, in 1820, assumed and apparently confirmed the correctness of Sir Everard, and various writers followed suit till an apparently genuine contribution appeared in the *Traitè Philosophique de Mèdecine Pratique*, by M. Gendrin, and established the theory. Dr. Robert Lee appeared on the scene and then began the great battle of the true and false *corpora lutea*, a battle based on the assumption of the ovular theory of menstruation, having for its object the establishment of a corollary as false as the main proposition, and constituting a quarrel as bitter, as fruitless, and as foolish as any to be found in the record of medical amenities. The struggle was only fading away when I entered college.

During the whole of the controversy upon these two points, lasting over fifty years, of course there were innumerable experiments upon animals. That these experiments were wholly useless is beyond doubt, and that they were entirely misleading is now universally admitted. Lest I should be charged with expressing a prejudiced opinion on this much debated subject, I shall content myself with quoting the *ipsissima verba* of Dr. Ritchie, written in 1842; "but unfortunately for science, and for multitudes of suffering quadrupeds sacrificed in a mistaken line of investigation, this conclusion did not happen to be verified by actual dissection." He further on speaks of the various misconceptions to which this method of investigation gave rise, and shows conclusively that by no experiments on animals could the enigmas of human ovulation and menstruation be solved. It was by *post-mortem* dissection that he made his discovery, and it is by *ante-mortem* dissection that I am in a position completely to confirm it.

After Ritchie's papers, the next contribution in order of date is in the *Medical Gazette* for 1849, by Mr. W. Bedford Kesteven, a very well known practitioner in the north of London, still living, I am glad to say, in honourable and well deserved retirement. Mr. Kesteven has made some notable communications in the direction of original research, and though there is little that was really new in the paper now under notice, it confirmed the views of Ritchie in very terse and convincing language. Thus, in answer to the one argument used against Ritchie, that in a few instances follicles had been found either just ruptured, or on the point of rupturing in women who had died during menstruation, Mr. Kesteven says, "As ovulation is a constant function of the ovaries, and menstruation an occasional function of the uterus, the two may be expected to be found occasionally concurrent."

He also points out that if the maturation of ova occurred as the rule at the menstrual period, pregnancy would not occur so often as it does in the absence of the catamenia, as in the amenorrhœa of lactation and other conditions. He also argues from the case of the Jewish people with such force that I give his words in full.

"According to the Mosaic law, sexual intercourse is prohibited until after the eighth day after the appearance of the catamenia; to this strict Jewesses add five days more in obedience to a Rabbinical precept, and yet these women are equally if not more prolific than other females. Thus, if the ova be discharged only at the monthly period, these individuals become pregnant before the discharge of the ova. But the rigid observance of these injunctions by a large number of Jewesses, coupled with the known experience of accoucheurs generally, that impregnation may and does take place immediately before the menstrual periods, affords a much stronger proof that the maturation of ova occurs at any time, than the occasional and infrequent observation of recently ruptured ovisacs concurrently with menstruation affords of the menstrual flow."

Mr. Kesteven's statement about the general experience of accoucheurs is confirmed in Merriman's synopsis.

I have made a very diligent search for other contributions to this subject in the medical literature of the last 25 years, but with singularly barren results. Everywhere I am met by the accepted tradition that menstruation is due to the period of ovarian excitement due to the ripening of a Graafian follicle, and that the termination of this is the grasping of the ovary by the infundibulum of the oviduct at the precise spot where the follicle is ready to burst.

Here and there, however, an occasional authority breaks away from the tradition, and gives an independent statement. Thus, Professor Hirsch (*Schmidt's Jahrbuch* for 1850), concludes that menstruation in women has no analogy with the heat of beasts, that fructification can be accomplished at any time, not at the period of menstruation only, as in the lower animals, and that the function of the ovary is to be continually producing mature ova.

In the *Archives de Physiologie* for May, 1874, Dr. K. Slavianski states, as the result of his observations, that the development and maturation of the Graafian vesicles do not take place in any regular periodical fashion, and that there is no connection between these conditions and menstruation. This latter physiological phenomenon is entirely independent of the former.

Dr. De Sinèty, to whom we owe an immense debt for the elucidation of very many important points in the anatomy, physiology, and pathology of the ovary, in a paper communicated to the *Société de Biologie* on December 2nd, 1876, narrates a case of great importance by which menstruation without ovulation is established.

Dr. A. Reeves Jackson published a very important paper in the *American Journal of Obstetrics* for October, 1876, in which he summarised what had been done by Ritchie and others, and he deals in a most forcible fashion with some of the more recent advocates of the ovular theory. Thus, at page 147 of Dr. Robert Barnes' book on "Diseases of Women," is a series of facts given, but singularly perverted, and of this kind of treatment Dr. Jackson most justly says, "Such a course as is indicated in the foregoing instances, is more reprehensible than reasoning without facts; it is reasoning against them. Yet these are only samples of the sort of argumentation which is frequently found in connection with this subject."

He sums up in a sentence the experience of ovariotomists in which I entirely concur, and the quotation of which will spare me saying much more on this point. It is their experience, he says, that in many cases in which both ovaries have been removed, those organs have been found so thoroughly diseased as to preclude the idea that they could possibly have performed their

functions of ovulation normally, if at all, and yet the regularity of menstruation has suffered no interruption. To this I may add, that the most diligent search in the ordinary cystic ovary has failed ever to discover ova in the cysts, with the exception of three cases, clearly of a special variety of tumour described by Rokitansky, Ritchie (younger) and myself. This ova-bearing kind of tumour is fully described and figured in my last edition.

Dr. Jackson brings most valuable evidence on the subject from an examination of cases of hernial ovaries. In a case of Dr. Oldhams', published by the Royal Society, the periodic enlargement of the glands due to the process of ovulation, as was reasonably supposed, occurred at irregular intervals from three weeks to three months.

In another case of Dr. Meadows', the tumour increased in size, and became painful at every menstrual period, but when it was removed it proved, according to Dr. Meadows, to be a cystic tumour in which "there were no proper Graafian vesicles to be seen."

Dr. Jackson proceeds to show, from a mass of material drawn from numerous sources, that (*a*) menstruation goes on under a variety of circumstances under which ovulation is wholly impossible; and (*b*) conversely that ovulation may occur without accompanying menstruation.

Further, quoting Goodman and others, he shows that the statements of Barnes, Leishman, Spencer Wells, and others, to the effect that removal of both ovaries arrests menstruation are entirely wrong. He goes so far as to say that men who make such a statement now subject themselves to charges either of ignorance or want of candour. With this I quite agree, for I have added to the evidence abundant proofs that removal of the ovaries without injury of the tubes has often no influence on menstruation at all, that removal of the tubes, even when the ovaries are left, arrests menstruation in the great majority of cases, but that (as in one of Baker Brown's cases) even removal of the ovaries, tubes, and greater part of the uterus may not arrest or influence in any way the menstrual periodicity.

In the *British Medical Journal* for 1881, I published a letter, in which I said, that "Evidence is rapidly accumulating in my hands pointing to the conclusion that ovulation and menstruation have no necessary connection; and that *corpora lutea* are not a necessary result of the maturation and shedding of true ova."

At page 25, in the last edition of my book on the "Pathology and Treatment of Diseases of the Ovaries," I give the following summary of my conclusions:—

"I have, during the last few years, had the opportunity of seeing the ovaries of a number of women whose abdominal cavities I have had to open for various conditions not connected with diseased ovaries, and I have always found that during menstruation the tube is fastened on the ovary, whether there be a ripe follicle at the point of adhesion or not; that both tubes were generally fastened to their respective ovaries, though in one ovary there may have been no appearance of a ripe ovisac; that I have very frequently seen a ripe ovisac on the point of bursting, or just burst, when the patient was midway between two menstrual periods. Finally, I have removed in two cases ovaries with the tubes fastened on them, during menstruation, in none of which were there any ovisacs approaching ripeness."

The chief purpose in the present paper is to draw attention to the above conclusions by giving in detail the evidence upon which they are based, conclusions which are being strengthened as the evidence accumulates.

First of all let me say that abdominal surgery affords abundant opportunities of settling a question such as this; indeed, it is not creditable to the art that its settlement has been so long in abeyance. Sir Spencer Wells has performed over a thousand ovariotomies, in the great majority of which a healthy ovary was left. In the performance of the operation it was his duty to ascertain that the second ovary was healthy, and if the simple expedient had been resorted to of noting the appearance of the organs and the time of the menstrual month in which the operation was performed in each case, the ovular theory of menstruation would have been settled long ago.

The custom arose in the removal of an ovarian cystoma of selecting the time for the operation as nearly as possible equi-distant from two periods. There was no really good reason for this, and in some cases arguments against it might be found. But when abdominal sections came to be performed for other purposes, such as the removal of the uterine appendages for bleeding myoma, pyo-salpinx, or chronic ovaritis, it soon became evident that it was best to operate just before or even during the menstrual period. The reason of this is that by this selection the patient is saved the pain and loss of blood of an additional period, for the operation brings on a period almost always, and if one is made to do for two, it is better. In the case of myoma there is the additional argument that the rest between the last period and the operation should be as long as possible. It has, therefore, come to me to be a rule to select the immediate approach of menstruation as the time for operation in many cases, and to be in others quite indifferent on the subject.

In the evidence about to be given in detail, I have not thought it worth while to tabulate the cases of double cystoma, because they go almost in a block to support the views of Ritchie. In a very few cases of double cystoma, and equally so in a few cases of single cystoma, the disease is associated with the arrest of menstruation, but in the great bulk of the cases menstruation goes on uninterruptedly. No one has yet claimed, save in the three published cases of Rokitansky's peculiar tumours, to have found ova in the cavities of ovarian cystoma, nor do we ever see anything like a ripening follicle; and in Rokitansky's tumours the ova are retained, not discharged. We must conclude, therefore, that in those cases of double ovarian cystoma, in which menstruation goes on during the growth of the tumour, that process cannot in any way be dependent on the ripening and discharge of ova.

In cases of single cystoma, the argument for one ovary, that is half the work of ovulation, is just as conclusive. If menstruation depended on ovulation, we ought to expect that, during the growth of a single tumour, about half the periods ought to be suppressed, but they are not. In such cases, the condition of the healthy ovary is a matter of interest, and therefore I have noted it. Probably cases of parovarian tumours will prove to be the most satisfactory field for this enquiry, as in them the uterus and its appendages are wholly free from disease.

In the following narration, all cases of irregular and deficient menstruation have been omitted, as also all cases where the history was defective:—

1 August 7th, 1880.—Cirrhotic ovaries removed, age 31; menstruation regular, not a trace of vesicles of any kind in the glands; had menstruated five days before the operation.

2. August 10th.—Cirrhotic ovaries removed, age 28; menstruation regular, only one old vesicle to be found; had menstruated thirteen days before operation.

3. August 17th.—Appendages removed for severe menorrhagia, age 49; operation performed immediately after menstruation; one follicle about half matured, no trace of one having recently burst.

4. September 1st.—Right ovary removed for cystoma, age 17; operation performed midway between periods;

no trace of recently burst nor of ripening follicle in remaining ovary.

5. September 1st.—Appendages removed for bleeding myoma, age 47; both ovaries cystic, and entirely without traces of normal vesicles; the hæmorrhage was periodic (menstrual), and lasted from ten to twelve days.

6. September 24th.—Appendages removed for double pyo-salpinx, age 28; menstruation had been regular, profuse, and intensely painful; the tubes were glued on to the ovaries, and no vesicles could be found in the latter.

7. October 5th.—Appendages removed for double hydro-salpinx, age 32; menstruation had been regular, profuse, and intensely painful; both ovaries were disorganised by chronic inflammation, and no vesicles of any kind could be discovered in them.

8. October 6th.—Parovarian cyst, age 48; had not menstruated for a year; one well-marked follicle observed in left ovary.

9. October 12th.—Appendages removed for menstrual epilepsy, age 23; operation performed four days before an expected period; one follicle had just burst (probably did so during the operation) in the right ovary, and another was nearly ready in the left ovary.

10. October 26th.—Appendages removed for menorrhagia due to myoma, age 35; operation performed midway between the periods; one large follicle quite ripe in left ovary, another not so far advanced, and two evident, though smaller, in right ovary.

11. December 7th.—Left ovary removed for cystoma, age 21; operation performed just after a period; follicle recently burst in right ovary.

12. December 18th. — Appendages removed for menorrhagia, age 44; operation midway between periods; fully ripe follicle in right ovary, ruptured when grasped, and shed yellow body; one immature follicle in left ovary.

13. January 13th, 1881.—Appendages removed for myoma, age 32; operation performed during menstruation; both tubes grasping the ovaries, but no follicles ripe.

14. February 5th.—Appendages removed for myoma, age 41; menstruation regular and very profuse; operation performed between the periods; both ovaries cystic, and no follicles apparent anywhere.

15. February 12th.—Appendages removed for most terrible menorrhagia, due to myoma, age 43; operation performed just before a period; no traces of follicles anywhere.

16. February 17th.—Left ovary removed for cystoma, age 23; menstruation quite normal, operation performed just after a period; one immature follicle in right ovary.

17. March 2nd.—Removal of appendages for persistent menorrhagia, age 25; both ovaries cystic, but of small size; no follicles discoverable.

18. March 20th.—Appendages removed for myoma just before menstruation, age 35; a fully ripe follicle in right ovary, and one almost as advanced in left.

19. March 29th.—Left ovary removed for cystoma, age 30; operation performed twelve days after period; fully ripe follicle in right ovary, and two others ess mature.

20. June 15th.—Both tubes removed for myoma, ovaries being left, age 43; the right ovary was not seen, but the left had an almost ripe follicle; the operation was done almost midway between the periods; the patient has never menstruated since, and the myoma has almost disappeared.

21. July 2nd.—Right ovary removed for cystoma, age 38; menstruation regular; operation performed four days after period; when left ovary was being examined, a fully ripe follicle burst.

22. August 8th. — Parovarian cyst of right side removed about eight days before period; an almost ripe vesicle was noted in left ovary; no vesicles at all in the right.

23. August 19th.—Appendages removed for pyo-salpinx, age 27; operation performed the first day after menstruation; no traces of follicles in the disorganised ovaries; menstruation had been regular and profuse.

24. August 22nd.—Right ovary removed for cystoma, age 18; menstruation just over; no trace of follicle in left ovary.

25. August 25th. — Appendages removed for persistent menorrhagia, due to myoma, age 38; both ovaries cystic; no trace of normal follicles.

26. September 17th. — Appendages removed for myoma with persistent menorrhagia, age 40; both ovaries cystic; no trace of normal follicles.

27. November 14th. — Removed appendages for hydro-salpinx, age 33; operation performed during menstruation; no trace of follicles in either of the ovaries.

28. November 22nd. — Left ovary removed for cystoma during menstruation, age 22; tube fastened on to right ovary, in which there was a follicle apparently quite ripe, but away from the tube at least half an inch.

29. November 30th. — Appendages removed for hydro-salpinx, age 37; operation performed midway between periods; no traces of follicles in the ovaries; the patient has menstruated regularly ever since, more than three years.

30. December 19th. — Appendages removed on account of intense pain produced by dislocation of ovaries into the *cul de sac*, age 29; operation performed about midway between periods; a perfectly ripe follicle in each ovary, both of them discharging their contents during operation.

31. January 4th, 1882.—Appendages removed for persistent menorrhagia, due to myoma, age 36; operation performed about ten days after a period; a perfectly ripe follicle in one ovary, several quite immature in the other.

32. January 10th.—Appendages removed for myoma, age 37; operation performed during menstruation; each ovary was grasped by its tube, but there were no ripe follicles.

33. January 29th.—Appendages removed for myoma, age 46; the left ovary was grasped by its tube, and very near the point of grasping was a perfectly mature follicle, but the ovum on its escape, when the follicle ruptured, could never have been passed into the tube.

34. February 18th. — Appendages removed on account of persistent pain, age 43; operation midway between periods; ovaries quite cirrhotic, and not more than one-third of the normal size; menstruation had been perfectly regular, and normal in amount; there were traces of vesicles throughout the ovaries. The removal of appendages arrested menstruation, and has cured the patient.

35. February 22nd. — Appendages removed on account of persistent pain and excessive menorrhagia, due to chronic pyo-salpinx, age 27; no trace of vesicles could be found in the ovaries; they were quite disorganised.

36. March 16th.—Appendages removed on account of persistent pain, age 33; menstruation regular; operation performed just after a period; not a trace of vesicles in the ovaries, which were shrivelled and deeply grooved in all directions.

37. March 31st.—Appendages removed for myoma, age 40; operation performed on second day of menstruation; ovaries both cystic; no normal vesicles, nor any appearance of embracement of the ovaries by the tubes.

38. April 5th. — Right ovary removed for large myoma, age 33; menstruation regular; operation

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eighth day after period; perfectly ripe vesicle in left ovary.

39. April 20th.—Appendages removed for myoma, age 21; operation performed during menstruation; both ovaries grasped by tubes; no ripe follicles in either ovary.

40. April 25th.—Appendages removed for menstrual epilepsy just before a period, age 25; ovaries contained a few cysts, but no follicles approaching ripeness.

41. May 5th.—Parovarian cyst removed ten days after period, aged 28; patient pregnant two months; a perfectly ripe vesicle in right ovary.

42. June 24th.—Parovarian cyst removed on third day of menstruation; right tube embraced its ovary, a ruptured follicle in left ovary, but left tube did not seem to be anywhere near it.

43. July 21st.—Left ovary removed for cystoma, age 22; operation performed eleven days after menstruation; a perfectly ripe follicle in right ovary, which burst and discharged its contents when handled.

44. July 24th.—Appendages removed for persistent pain, age 32; ovaries adherent and quite disorganised; no trace of follicles in them; menstruation had been perfectly regular and profuse.

45. July 25th.—Appendages removed for persistent pain, age 37; ovaries adherent; several follicles found in right ovary, but not approaching ripeness; operation performed four days after period.

46. July 27th.—Left ovary removed for cystoma, age 38; menstruation had been quite regular, and patient had borne the last only two years before the operation; there was no right ovary in this patient.

47. October 7th.—Parovarian cyst removed during menstruation, age 26; left tube embraced its ovary, but no follicle on that side; a perfectly ripe follicle in the right ovary.

48. November 6th.—Parovarian cyst removed, age 44; operation on third day of menstruation; both ovaries grasped by their tubes, and under the left tube there was clearly a ripe follicle.

49. January 28th, 1883.—Parovarian cyst removed on second day of menstruation, age 29; no embracement of ovaries and no ripe follicles in the ovaries.

I made no notes of further observations, as I began to lose interest in the enquiry, being perfectly satisfied that the evidence so far has completely destroyed the ovular theory of menstruation. I am persuaded, however, that it is worth further perseverance, as I am not sure that some of my other conclusions are quite as secure, and therefore I shall resume it.

As it stands, the evidence seems to me conclusive on the one point for which it was taken. Of course different people read the same evidence in different ways, and probably it will be so here; but in dividing the cases into three of the simplest and most natural groups, it seems to me that they arrange themselves as follows:—

1. Cases, nine in number, where it was evident that menstruation and ovulation were concurrent (Nos. 9, 11, 18, 21, 28, 33, 42, 47, and 48).

2. Cases of negative proof against the ovulation theory of menstruation, fifteen in number (Nos. 1, 2, 3, 4, 5, 6, 7, 10, 12, 13, 19, 22, 29, 38, and 45).

3. Cases, twenty-five in number, affording positive evidence against the theory (Nos. 8, 14, 15, 16, 17, 20, 23, 24, 25, 26, 27, 30, 31, 32, 34, 35, 36, 37, 39, 40, 41, 43, 44, 46, and 49).

Taking the average period of menstruation to be one-seventh of the month, and if we assume my theory of continuous ovulation to be correct, out of 49 observations we ought to have seven instances of ovulation observed during the menstrual period, and in the above table we have nine cases of menstrual ovulation. The close correspondence of these figures is not conclusive, but it is very suggestive that the association was one of mere coincidence.

In such a case as this the want of proof is quite as strong for the purpose of a presumption as the presence of direct testimony. To the twenty-five cases of positive evidence against the ovulation theory of menstruation we must really add the fifteen negative cases, and then we know the overwhelming case against the theory that out of a continuous and consecutive series of observations we have the theory inapplicable in nearly 82 per cent. of the cases. To this also must we add the negative evidence of the cases of cystoma.

Should further research confirm these conclusions, the ovular theory of menstruation must be given up; and in conclusion I must point out two curious inconsistencies between the facts of my observations and the theory I have been discussing. From the appearance in Case 9 it might happen occasionally that menstruation should occur twice within a very few days, with perfectly healthy uterus and ovaries, for in that case and in others it was quite clear that two ova would be discharged within a few hours of each other.

The second inconsistency is that the most marked and proper menstruation has been in cases of disease of the tubes, just as the most profuse lachrymation occurs in inflamed eyes; but in these cases, as a rule, not only is there no ripe vesicle to be seen, but the ovaries are generally so disorganised that no vesicles of any kind are visible. These conditions clearly show that the ovaries have little or nothing to do with menstruation, and render it highly probable that the tubes are largely concerned in it.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D.,
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(*Continued from page* 519.)

I HAVE now published in the *Medical Times and Gazette*—January 4th, 1879, to April 18th, 1884—what I regard as the *First Volume* of this work, comprising *Indian Fevers*. The Second Volume, completing the treatise, stands nearly ready in MS. As I find that I have noticed the whole of the diseases prevalent throughout India, I have dropped in my title the words "*Especially those prevalent in Bengal.*"

Note on the Beriberi, or the "Kakké," of Japan.

I am indebted to the kindness of Surgeon-General C. A. Gordon, for a sight of Dr. Duane B. Simmons's elaborate report.[1] The author defines beriberi as a disease occurring during the summer months, especially in the seaport towns on the eastern and southern coasts of the Japanese islands, chronic as to form, but subject to exacerbations of varying degrees of severity, having for its characteristic symptoms anæsthesia of the skin, hyperæsthesia and paralysis of the muscles, anasarca, palpitation, cardiac and arterial murmurs (in the wet form), præcordial oppression, abdominal pulsation. It has two distinct forms, the wet (*beriberia hydrops*) and the dry (*beriberia atrophia*); cases of both are met with in the same locality, the former more frequently when the summers are attended by an unusual amount of rainfall and moisture, and the latter when the season is of unusual dryness. The wet form is by far most to be dreaded, as it frequently runs a rapidly fatal course in defiance of all known modes of treatment. The dry form is rarely fatal.

[1] China Imperial Maritime Customs II. Special Series, No. 2. Medical Reports for the half year ended 31st March, 1880, 19th Issue, page 38.

Dr. Simmons' report will, I think, in the future, be most useful to those who may undertake the investigation of the disease in its more chronic endemic forms. He does not appear to recognise the disease in its epidemic form. In his histories, an early stage of fever does not appear to have been at all generally looked for, but Case I. has the following early history: *Pernicious Beriberi; Death.* "Entered the hospital 15th June." "During the first days of May, began to feel unwell, had occasional slight chills, followed by heat flashes" (flushes?), "a general sense of *malaise*, and a tired feeling in the legs." The following remark appears to show that kakké does commence as fever. Dr. Simmons' observes (p. 68) that, notwithstanding the strong resemblance which exists between marsh malarial fever and beriberi, their admixture is uncommon. "They have a certain resemblance in their initial stages which is very puzzling, and, though we may be able to diagnose with certainty beriberi or malarial poison as the cause of the indisposition, nothing but the administration of quinine will for some days enable us to decide which it is." Upon this I must state the platitude that this or any other disease which for days runs such a course that the QUININE TEST alone enables us to differentiate it from "Marsh Malarial Fever" must be, unquestionably, *a fever.* The author continues: "The almost invariable low temperature, in uncomplicated cases, is commonly noticed by all recent observers. So well established is this point that it is of decided diagnostic value in doubtful cases." There is no mention of an exanthem, but I apprehend that, in those cases where patients with beriberi are "attacked with typical typhoid fever," the eruption is not wanting. "In the wet form of the disease the urine is always less in quantity than normal. It is rarely high-coloured and is without albumen." I think that a full and patient enquiry into the febrile stage of kakké is still most desirable.

Prefixed to Dr. Simmons' report is a map:—When we recollect that beriberi has appeared in Brazil, and that it occurred in H.M. ship *Juno*, at Sydney, after a lengthened cruise among the islands in the Pacific, we perceive that the influence of beriberi may be regarded as encircling the globe between the limits of the Japan Islands, 37° N., and of Sydney, 33° 59′ S.

Malignant Asiatic Cholera and Cholera Simplex have been commented upon in Vol. II. for 1883, pp. 208, *et seq.*

Diphtheria and Croup.

He who would hope to throw a clear light upon the nature of the disease or diseases which, early in my career, used to be placed under these designations, ought to be an antiquarian as well as a pathologist. In this enquiry, it is to be asked, (1) How far these diseases used to be accurately differentiated forty years ago; and (2) Have changes since taken place in their type? I shall consider three points very briefly; but, having been in youth a victim to the neurosis laryngismus stridulus, or spurious croup, I may claim the questionable advantage of having some practical insight into this question—(1) It is certain that many observers, misled by the formidable character of the symptoms of false croup, have mistaken their cases of this disease for examples of the "membranous" exudative type. An eminent authority on Indian disease wrote as follows, five and thirty years ago:—"Croup is a most frightful disease, attacking the strongest children, and attended with the most agonising and convulsive efforts at respiration. It comes on quite suddenly, often in the middle of the night, and requires prompt attention and careful watching: for real inflammation of the larynx is apt to follow it. In common cases, however, all this hard barking clangor disappears after an emetic and a sleep." How came this generally very thoughtful pathologist to designate as "croup" that which, by his own showing, was merely the ordinary type of laryngismus stridulus—spurious croup. Some years before his remarks were published, another Calcutta authority took a more just view of the case,[2] observing, "Spasmodic croup is a disease common to infancy from one part of India to the other, and not unfrequent at the Presidency" (Calcutta). "Dr. H. H. Goodeve must have been often summoned from his couch to prescribe for this disorder, and to quiet the alarm of agitated parents. This, in appearance, is a very alarming disease, but is not dangerous unless neglected, and is very tractable." "The characteristic symptoms are—loud wheezing and difficulty in breathing. This disorder attacks suddenly, and generally between 11 at night and 2 o'clock in the morning, frequently precisely at midnight. The child starts from its sleep with the loud wheezing which may be heard throughout and without the house; we have known the sentry outside give the first alarm to the slumbering domestics. The child generally sits up in bed, and cries more from fright than pain or difficulty in breathing. There is a predisposition in some families to this complaint, every child being subject to it. Dentition predisposes to it. Disorder of the bowels acts sometimes as a remote and occasionally as a predisposing cause. It is common in India, from the Himalayas to the sea, though it seems to be more so in the Upper than in the Lower Provinces; and in some parts of these it occurs more frequently than in others. We would instance Rohilcund. During a residence of four years at Bareilly, we met with more cases than during an equal length of time in any other part of India. Its attacks are more confined to the cold season, or to the months ushering in the commencement and termination of this period of the year; we would fix upon October and March, when there is the greatest range of the thermometer in its diurnal changes, as the months in which it most frequently occurs, and for this reason probably the disease is more frequent in the Upper than in the Lower Provinces. We believe that, like inflammatory croup, it is often excited by a cold northerly or easterly wind, or by a wind blowing across a tank or river." The writer adds, that he knew of only one fatal case—a young infant died of convulsions, to which it was predisposed from a weakly constitution inherited from a delicate parent.

(2) Has any change taken place in the type of this class of diseases within the last forty years? I can declare positively, from my own personal and professional experience, that no material alteration has occurred in the type of spurious croup within that period. If membranous croup be diphtheria, its type may have undergone some change in Europe and in India; but I do not know that we have evidence of such change. We have always been told, until lately, that true croup attacks the healthiest children, and that it is essentially a "sthenic" disease, attended with high fever. Mothers used not to be pleased when the healthy appearance of their young children was remarked. "Yes," it would be said, "such children are very liable to croup!" In the first quotation given above, we see it emphatically stated that the disease "*attacks the strongest children.*" Here it is to be borne in mind that, although I think it will be found that subjects of spurious croup are mostly rather pallid and deficient in muscular power, very fine-looking children suffer from this neurosis. Again, has there ever been a "sthenic" type of diphtheria? I think not; but my experience in India — where the strongest Europeans have not always a very robust appearance—shows that many of the healthiest-looking people fall victims to diphtheria. A lady, who

[2] Finch's *Ind. Jour. of Med. and Phys. Science*, vol. ii., p. 428.

appeared to be in the enjoyment of the most perfect health, was attacked with diphtheria in Calcutta. I opened the trachea of a most beautiful and healthy-looking little European boy of four, almost *in articulo mortis* from diphtheria, whom one of my colleagues requested me to take charge of. At the Medical College, ten years ago, the youngest and apparently the most vigorous of our staff succumbed to diphtheria. This disease may attack the strongest, but it is not, on that account, "sthenic;" further, those who to ordinary observation appear to be the most robust are often weak —*Nimio ne crede colori.* I am strongly inclined to believe that true croup "has always been diphtheria of the air passages, and that the natural destructiveness of the disease was, generation after generation, largely aggravated by heroic, depletory, and depressant measures, employed under the false idea that the malady is "sthenic;" while many a little weakly but flushed-faced victim of spurious croup, who would have been asleep and well by sunrise had he been properly treated, has been bled, leeched, and blistered to death. Until treated, the subjects of spurious croup are generally feverish and flushed, but the skin acts freely after ipecacuanha and a warm bath. There is no inflammatory fever; no organic disease whatever throughout the progress of this neurosis.

Writing in 1860, Morehead did not allude to diphtheria or croup. Hence I infer that he had not seen the former and did not believe in the latter as a distinct entity. In his book, published four years later, Dr. Peet states that, "in the Western Presidency of India diphtheria in an epidemic form is quite unknown." Peet "never met with nor heard of croup in a native child in India," and he held that "it may, without hesitation, be affirmed that native children in Bombay," and "perhaps in other parts of tropical India, are quite exempt from this disease, whilst resident European children are frequently attacked." I do not, however, infer confidently from his description that this authority was able to draw a clear line of differentiation between "true sthenic membranous croup" and "spurious croup."

Mackinnon considered that croup is far less prevalent in India than in colder climates. Writing in 1855,[3] he cited an account of an outbreak of croup (?) which had just occurred at Darjeeling. During the first sixteen years of the occupation of that hill station as a sanatorium, croup had never shown itself, except on one previous occasion. The superintendent of Darjeeling called the outbreak "the infantile epidemic," and denied that it was a croup epidemic. Croupy symptoms did not appear at the beginning. There was "an epidemic in which the mucous membrane of the fauces, throat, larynx, and trachea was affected in various degrees of intensity, from malignant sore throat, fatal in one boy of seven years, and croup with a false membrane, fatal in two cases under five years of age, to the slightest coughs, colds, and sore throats, which were general among half the children of the place. Here diphtheria and croup are, to say the least, simultaneously incident upon a small community. Total of children, say 90. Here, too, we cannot but observe the alliances of this expression of disease on one side, to diphtheria, and, on the other, to the epidemic bronchitis of children in Lower Bengal, described under the heading of *Influenza.*

I have seen many cases of diphtheria of the air passages, and three marked cases of "membranous" laryngitis; but I never saw a case of sthenic "membranous croup" of the kind described in text books of medicine some years ago. In none of my cases was the "brassy cough" present; but in all there was more or less of that harsh sound which is fairly represented by breathing hard and blowingly through the tube, made by bringing the last phalanx of the thumb against the backs of the last phalanges of the fingers. The hill station of Nynee Tal long had an evil reputation for croup. Dr. Francis states, from three years' experience, that the children there were very liable, in the spring and autumn, to "attacks of bronchitis, croup, influenza, and cynanche." He observed that in 1855 "*croup of a sthenic character*" (the italics are mine) "and bronchitis were epidemic at both the above seasons; whilst there only occurred two or three cases of simple cynanche tonsillaris. But, in September, 1856, the cynanche cases were more numerous, and in one family, they assumed a decided diphtheritic character. Here, again, we notice a close approximation of cases of "true croup" (diphtheria of the air passages?) and of ordinary diphtheria.

I, as I have said, suffered much in childhood from neurotic spurious croup, and I saw a great deal of that disease among children in Bengal. One damp and stormy night, at a boarding-house in Calcutta, I was busy placing one of my own children, violently attacked with spurious croup, in a warm bath, when I was urgently called to see two children of an officer, in the next apartment, who were similarly attacked. The same hot water kettles served for both families. I passed nearly the whole of one night at Bishop's College with a very fine boy, the son of a clergyman. The boy looked so healthy, and was so hot and flushed, and the cough had so loud a brassy clangor, that I, for some hours, doubted whether I had not, at length, met with a case of genuine sthenic membranous croup. Treatment, however, showed that it was merely the neurosis. We place the child in a warm bath, wrap it in a blanket, make it vomit with ipecacuanha, and give it a brisk purgative (in these cases, and almost in these alone, I gave calomel, which acts very kindly). Sleep generally follows vomiting, and, when the cathartic acts, the child is well, but rather weak.

Although nearly up to the time of my entrance to the Indian Service in 1848, I was an office bearer at the Pathological and South London Medical Societies, and a steady worker at other societies, and visited Guy's Hospital almost daily, I knew very little indeed of diphtheria, except that which I learnt from French authorities on the *Diphthérite* of Bretonneau. I first saw typical cases of this disease in India. According to Kenneth Mackinnon, diphtheria "seems to have first shewn itself in Calcutta in 1852, when it destroyed several children at the Martinière School and elsewhere."[4] Although this school is a very fine building, it stands almost at the extreme east of the city—a position which has always been regarded as unfavourable. The close vicinity of a very extensive and full Mahomedan burial ground was another evil, but Dr. Webb attributed the outbreak to the foul state of the drains, and to the presence of numerous sheep pens in the immediate vicinity.

Mackinnon says that it appeared again in 1855 in Calcutta, but not in the same locality. He mentions that there had been one fatal case, a most sudden and afflicting visitation, occurring in a young married lady. He knew of another young lady, from whose fauces flakes of the exudation were removed by the forceps. From that time sporadic cases, with a distinct tendency to spread in families, have rather frequently occurred in Calcutta; but, as far as my own observation extends, there has not been an epidemic outbreak in that city. It is, however, very noteworthy that, a year later, 1856, diphtheria attacked four members of a family resident at Nynee Tal, a delightful hill station at an elevation of 6,450 feet above the level of the sea,

[3] *Ind. An. M. S.*, No. 5, p. 131.

[4] "On the Epidemics of Bengal and the North-West Provinces," *Ind. An. Med. Sc.*, No. 3, p. 176.

upwards of 600 miles north-west of Calcutta.[5] Nearly every Indian writer on diphtheria moots the question, *Is this disease closely allied to scarlatina?* Mackinnon states the barely note-worthy fact, that one of the Calcutta young ladies mentioned above as suffering from diphtheria in 1855, had a scarlet eruption, not preceded by fever, some weeks after recovering from the throat affection."

The late Dr. Peet, of Bombay, states,[6] that during a severe epidemic of scarlet fever, which raged in the southern part of Australia in the year 1853, diphtheria was very prevalent and fatal; and, indeed, in some of the cases which he saw, it was difficult to say which of those diseases was present. Until scarlet fever was introduced into Australia, diphtheria had never occurred there. He adds that, in the Western Presidency of India, where scarlet fever did not prevail when he published his work in 1864, diphtheria in an epidemic form was quite unknown.

Dr. Francis witnessed an outbreak of diphtheria at Warley Barracks in 1857, scarlet fever being epidemic at the same time. He alludes to this after describing the four cases of diphtheria which he saw at Nynee Tal, where no suspicion of the existence of scarlatina existed. He suggests the question: Is diphtheria scarlatina without the eruption?—a question which, I believe, most observers will answer in the negative. We have seen that, of late years, scarlatina has appeared in the Bombay and Madras Presidencies, having been imported in troopships; but the fact that diphtheria has prevailed in Calcutta for upwards of thirty years, although no unimpeachable case of scarlatina has been observed in Lower Bengal, goes far to show that these two diseases are, to say the least, very separate entities.

The returns of our *British Force*, in all India, for 1880, show two deaths from diphtheria; for 1881, only one death; and for 1882, no death, in a force 57,269 strong. There was not any case of diphtheria among the *women* during the three years; but, among the *children*, numbering from 6,208 to 7,596, there were, in 1880, 18 cases of diphtheria, with 11 deaths, and 40 cases of "croup and laryngitis," with 14 deaths. In 1881, diphtheria did not occur among the children, but there were 388 admissions for croup and laryngitis and 28 deaths. In 1882, no mention is made of diphtheria, but 26 children were treated for croup and laryngitis and 7 died. During the three years, only two admissions for diphtheria occurred in the *Jail population*. In 1880, their average strength was 106,763, and, in that year, one case (fatal) was registered in the Bengal, and one in the Bombay Presidency. There was only one admission (in 1880) for diphtheria in the *Native Army* in the three years. In 1882, this force was 114,894 strong.

In my time diphtheria was rather common in and out of Calcutta, and probably is so still. As I have already mentioned, one of our hospital surgeons fell a victim to the disease, contracted in examining a patient in his ward. I opened the trachea in two cases—in that of the European boy alluded to above, and of a young native man. My colleague, Mr. Partridge, requested that I would (my residence being in the college) watch the latter. He had come in much exhausted, thin rags of dark-coloured exudation matter, like sodden brown paper, hanging from his soft palate. As I stood at the foot of his bed looking at him, foam gathered at the corners of his lips, and in a moment I saw that he died. I did not lose an instant in making the first incision with my penknife, while I called for the scalpels and cannula, which were close at hand. A large tube was inserted, and Sylvesterism was immediately employed, and long maintained, but quite in vain. This case forcibly illustrated the almost instantaneousness with which death from exhaustion occurs in this disease. It was in strong contrast with that of a patient of Sir Joseph Fayrer's, who, having some considerable time previously had his trachea opened, suddenly pulled the cannula out and appeared to die immediately. A nurse ran out of the ward into the operating theatre, and called Sir Joseph, who was operating and could not leave. I went, at his request, put in the tube, and, as a matter of routine, but without any hope of saving the man, I employed Sylvesterism, and was astonished to find that breathing was restored. I published the diphtheria case some time ago, and think that a hint was made soon afterwards, that I had forced the exudation down the trachea and so arrested respiration. This positively did not happen. I examined the case very carefully *post-mortem*. There were mere traces of thin exudation in the air passages, but nothing that could occasion obstruction; and, as we worked the chest, mechanical respiration was perfectly free, air passing through the cannula at every stroke as if through the nozzle of a bellows. This was the only case of diphtheria which I saw in a native.

(To be continued.)

[5] Dr. Francis, "Diphtheria and the Malignant Sore Throat of Scarlatina," *Ind. An. Med. Sc.*, No. 13, p. 9.

[6] "Principles and Practice of Medicine: designed chiefly for Students of Indian Medical Colleges," p. 357.

THE FALLACIES OF EMPIRICAL STANDARDS IN WATER ANALYSIS AS TOLD BY THE STORY OF A POLLUTED WELL.[1]

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The author had recently analysed some water from a well 35 feet deep, and found in 100,000 parts, chlorine 7, nitric acid 5, sulphuric acid 5·2, phosphoric acid, very heavy traces, total solids 51, free ammonia ·0009, albuminoid ammonia ·0055. If he had judged it by Mr. Wanklyn's standards, it would almost have come under his Class 1, "Waters of extraordinary organic purity;" but it only just entered his Class 2, "Waters safe organically." He neglected those empirical standards, and judging by the ordinary sewage accompaniments in it, pronounced it impure. The owner then had the well examined, when it was found that the lining, of dry laid bricks, and very defective, extended for a depth of seventeen feet through clean gravel, of which he showed a sample, into the variegated red marl of the Trias, which continued to the bottom. Surface water from the gravel trickled in all round the lower part of the lining; near the bottom of the latter was a black patch in the brickwork, and he showed some black gravel he had taken from behind it. Thirty feet off was a recently emptied water-closet cesspool, from which sewage had leaked into the gravel; a privy stood eleven feet from another side of the well, and at the back of it filth had evidently soaked into the gravel seventeen feet from the well. Drains passed at distances of two and six feet from the well. He determined the chlorine in the surface drippings opposite the privy, from the black patch and from the opposite sides of the well, and found in 100,000 parts 8·4, 6·4, 5·8 and 5·4 respectively. On the previous day the black patch drippings contained seven parts of chlorine, which showed that this water was of variable constitution. The gravel water would naturally have the same composition all round the well, so the relative impurity of the drippings might be judged by the chlorine. It was therefore clear that

[1] Abstract of a Paper read before the Society of Medical Officers of Health, April 18th, 1884.

there was most pollution opposite the privy, next at the black patch. Water from the former spot yielded per 100,000 parts, chlorine 8·2, nitric acid 5·7, phosphoric acid, very heavy traces, total solids 56, free ammonia ·0323, albuminoid ammonia ·0282. Water from the black patch yielded, chlorine 6·6, nitric acid 19·4, phosphoric acid, very heavy traces, total solids 72·6, free ammonia ·0018, albuminoid ammonia ·0167. To make certain that the privy had allowed impurities to soak into the well, he had rock salt put into the vault, and had it filled with water. In 28 hours the drippings from the well lining opposite the privy had 11·3 parts of chlorine, an increase of about three parts per 100,000.

The well was then pumped empty, when he descended and took some water as it issued from the red marl about two feet from the bottom, which yielded per 100,000 parts, chlorine 6·1, nitric acid 7·5, phosphoric acid, very heavy traces, total solids 52·4, free ammonia ·0016, albuminoid ammonia ·0079. These results were somewhat inferior to the original analysis, which he considered might be accounted for thus : 50 yards from the side where the bottom sample was taken, was a stable well sunk into the same formation, which analysis showed to be very polluted with soakage from a drain, cesspool, privy and manure heap. The house well having been pumped dry, there was a strong inflow from the marl when some of the impure stable well water would be drawn into it, mixed with the purer intervening water. In order to ascertain, if possible, the natural composition of water from that particular stratum, he analysed some from a well at a house in large grounds 100 yards off, and found per 100,000 parts, chlorine 1·6, nitric acid 4·6, phosphoric acid, very heavy traces, total solids 31·9, free ammonia ·0013, albuminoid ammonia ·0188. This, though not above suspicion as to its purity, might be taken as showing the composition of the best well water that could be got in that part, and it would be seen that, although its organic matter was higher than in the well water under consideration, yet the usual sewage accompaniments in it were less. These analyses and facts had established the assertion that water taken from the well was capable, as occasion arose, of conveying specific infective matter of filth diseases to any person partaking of it, empirical standards notwithstanding.

The author also showed a series of analyses of waters, taken from the same and other geological formations, which did not exhibit a large proportion of organic matter, and which would have come within Mr. Wanklyn's class styled "safe organically," but in which the sewage associates were unusually high. He detailed the source of pollution in respect of each, and stated that in all cases it was very near the wells ; many of the waters had been examined because they had plainly caused the spread of typhoid fever.

In well water, in more recently inhabited parts, oxidation was often less complete, there being less nitrates, but when ground had become saturated with sewage and changed into a nitre bed, as it were, then oxidation was carried much further ; but surely it could not be argued that water which had passed through such sewage-befouled soil was likely to be the less dangerous on that account, notwithstanding that much of the organic nitrogen might appear as nitric acid instead of in its original form. In the series of analyses the average nitric nitrogen was 8·28, whilst the average albuminoid ammonia nitrogen was only ·0075 per 100,000. So 1,100 parts of the original organic nitrogen had been oxidised and only one part was left, showing that residue to be of a different and far more permanent character than the bulk representing, however small it might be, in all likelihood the organised and more resisting living part of the polluting matter, which might be a most potent agent as a disease carrier. So it mattered not how small it appeared in the analytical results. It would seem that greater danger lurked in that more stable organic matter than in the more readily oxidisable part ; greater significance, therefore, must attach to minute quantities of organic matter when accompanied by any excess of the usual sewage accessories, chlorine, nitric, sulphuric, and phosphoric acids, over the normal standards of the natural water yielded by the geological formation from which a sample may have been taken, than when those substances were normal in amount. It was safer to judge a water by the mineral constituents enumerated than by organic indications, readily changeable as they were. The author had found a dried Daphnia pulex to weigh rather less than $\frac{1}{300}$ grain which, on distillation with alkaline permanganate, yielded albuminoid ammonia which would have appeared in a water analysis as ·0005 per 100,000. Each yeast cell had but a weight of one ten millonth of a grain, and he would err on the right side if he assumed that a disease germ weighed as much. It would take 50,000 to equal the Daphnia and to yield the insignificant quantity of albuminoid ammonia mentioned ; and if half a pint of water yielding no more were drunk, about 2,200 yeast cells, and probably many more disease germs might have been swallowed, yet, forsooth, an empirical standard based upon the organic indication would declare the water to be absolutely safe and free from danger ! The author had known arsenic in quantities poisonous to beasts, and carbolic acid to pass through the ground into wells fifty yards away, and he could not doubt that the infinitely small organised bodies could be conveyed at least as far ; and as they probably resisted oxidation far more than putrescible animal matter, being the agents by which those substances were nitrified, much of the accompanying filth would be found in the water as nitric acid, whilst they would furnish organic carbon and nitrogen, or albuminoid ammonia, which might be represented in the third or fourth place of decimals ; yet, surely, since they were the morbific agents, the danger was none the less, even if those figures were small. Mr. Jacob and Dr. Thorne Thorne had proved the infected dejections from a single individual to have spread typhoid fever far and wide through the Caterham water supply. How much greater danger therefore must there be from the continual soakage of even very small quantities of sewage impurities into the limited and confined water in a house well.

Experiments made with the analysis of water containing portions of solid excreta only did not correspond with the circumstances actually met with in practice, for there we had all the other constituents of sewage to help in forming an opinion. If tricks had been played with a sample, surely analysis must not be blamed if correct results were not arrived at. But if we looked at Dr. Dupré's analyses made for Dr. Cory, it would at once be seen that the phosphoric acid, the importance of observing which was first insisted upon by Mr. Hehner, was a sure indicator of the presence of excreted matters, and was more uniformly reliable than the attempted estimation of organic matter. He thought those results showed we ought not to attempt to give any absolute opinion of the relative amounts of pollution in any waters on the data given by attempts to estimate organic matter. Consequently it was unscientific to classify waters on such determinations alone. To judge a water with any approach to infallibility, we must first know all about its derivation. Our only standard must be the natural water of the locality, and of the geological formation from which each sample was drawn, then the least deviation from that would be a sure indication of pollution. Had not the standards which had been proposed led to diametrically opposite opinions

being passed on the same waters by different chemists? What was the result of adopting any empirical standard—did it not increase that discreditable muddle? He contended that it did in an extreme degree, and rendered confusion worse confounded. He argued that any limited standard told us actually nothing about the presence or absence of sewage. With water analysis, it was not a question of quantity in sewage pollution; we could not say that one quantity of pollution was dangerous, but that a half or a third of it was innocuous. The fact was, that if a water exhibited the usual accessories of sewage, however small or large the indication of organic matter might be, it must be considered dangerous and unfit for dietetic use until we became acquainted with the natural conditions by which infective material can be rendered inert and harmless. The method of determining organic matter, whether chemical or biological, whether by the combustion, distillation, or oxygen process, was a matter of little moment. They were all more or less quantitative tests, and told very much the same tale. It was to the wretched wrangling in the past over the rival processes, and to the ridiculously exaggerated importance that had attached to them, was due, in a large degree, the discredit into which water analysis had fallen amongst engineers and sanitarians. The facts the author had given should prevent any analyst from fearlessly pronouncing a confident expression of opinion as to the perfect safety of a water, more than likely of unknown origin. If there were much indication of organic matter, it was often a help in condemning a water, but the absence of it, *per se*, should not induce an analyst to report favourably on a sample He was perfectly convinced that analysis of water might furnish valuable *positive*, but not *negative*, evidence as to pollution.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

WESTMINSTER HOSPITAL.

INTESTINAL OBSTRUCTION DUE TO PERITONITIS FROM PERFORATION OF THE VERMIFORM APPENDIX.

By H. B. DONKIN, M.B., F.R.C.P.

Physician to the Westminster and East London Hospitals.

I RECORD the following case because of:—

1. The sudden onset of the symptoms which led to the diagnosis.
2. The interest attaching to the *post-mortem* examination.

G. C., a boy, aged 13, having been previously in good health, was seized with an attack of sickness and abdominal pain, on the 28th December, 1883, soon after playing football. The pain recurred paroxysmally, and he complained of headache. The bowels acted that evening, and again on the morning of January 1st, 1884. The pain becoming worse, the boy was admitted into the Westminster Hospital on January 2nd. He had vomited but once, viz., at the beginning of the attack, before admission.

The patient, on admission, had an anxious expression, the naso-labial line being well-marked, and he lay on his back with the legs slightly drawn up. An occasional hiccough caused great pain. The abdominal pain appeared to be very severe, coming on in paroxysms every few minutes, and was referred by the boy to the region of the navel. The belly was slightly distended, and tender on pressure all over. The percussion note was tympanitic, except over the right iliac region, where there was an area of much diminished resonance. The breathing was hurried, shallow, and thoracic. The tongue was moist and whitely coated. Pulse 88, small and hard, temperature 99.

No hernia or tumour could be discovered in the abdomen, after a fairly satisfactory palpation, which was not precluded by the tenderness. The heart and lungs were found to present no abnormality to physical examination. The urine was passed with some pain, and in very small quantity—containing no albumen.

On inquiry about the last bowel-action on the previous day it was ascertained from the boy himself, who was very intelligent, that it was very slight: only a few small lumps coming away. Considering all the symptoms and possibilities, a provisional diagnosis was arrived at that the case was one of intestinal obstruction, probably due to a twist or perhaps to intussusception. He was ordered hot fomentations and opium.

On the evening of this day (January 2nd) he vomited some bile-stained sour-smelling material. He however slept fairly well, though frequently awakened by paroxysms of pain. The temperature during the night ranged from 96·8° to 99°, never rising over 100° throughout the case; nor did the pulse ever exceed 102°. Vomiting took place four or five times during the next day (January 3rd); on the last two occasions, towards evening, the vomited matter had a distinct fœcal odour.

In the evening an elastic tube was passed up the gut for about 18 inches, as far as it would easily go. Three quarts, or more, of tepid water were injected. The percussion note became dull over the whole of the abdomen. After a short retention the water was voided, with a few small scybala, and the percussion note was found to be as before—resonant, with the exception of the dull patch on the right side. After a grain of opium the patient had a fairly good night. On the morning of the 4th, the expression was more anxious; skin very dry, belly more distended, and tongue drier. At 8 o'clock there was vomiting, obviously of fœcal matter. At noon, vomiting again, still more fœcal, and three times again before 9 o'clock in the evening. Hardly any urine passed. It had been decided in the morning to explore the abdomen by operation should the patient get worse. The opinion was, that the obstruction was in the small intestine. At 9 P.M., Mr. Macnamara opened the abdomen in the middle line below the umbilicus. A small quantity of pus, with a *distinctly fœcal smell*, flowed away when the peritonæal cavity was opened. The large gut was distended with flatus and congested. A portion of gut was found bound down by adhesion to the posterior part of the left iliac fossa; the adhesion, however, readily giving way to the exploring finger, leading indeed thus to its discovery. Nothing further was found by examination, which however was not complete. It was decided not to turn out the whole length of the intestines for the purpose of examination, especially on consideration of the peritonitis and the fœcal character of the exuded pus, which pointed to perforation having taken place somewhere. The wound was then closed. The patient seemed in no way affected by the operation. About half-an-hour afterwards vomiting set in again, of the same nature as before, and the pain returned in paroxysms, gradually becoming more severe. The next morning January 5th, the pulse was feebler and more rapid; forehead clammy, pain agonising. The boy died a little after mid-day; the temperature rising to 100° before death, and to 102·5° a few minutes after.

The *post-mortem* examination was made 26 hours after death. (1.) Acute general peritonitis was found,

most intense at lower part of abdomen ; the intestinal coils were matted together, their surface being covered with thick yellow lymph. The upper part of the gut was distended, while the lower part was flaccid and contracted, though it contained several small scybala. 2.) The vermiform appendix was found to be perforated by what was apparently a calculus ulcerating its way through its wall. This object was $\frac{7}{10}$-inch long and $\frac{1}{4}$-inch broad. It consisted of fœcal concretion. (3.) On exploring the small intestine an obstruction was found five feet six inches above the cœcal valve, consisting of two coils of gut closely matted together. At the point of kinking the gut was found to be very narrow, measuring only one inch in circumference, this constriction appearing, on close examination, to be in no way caused by disease, but congenital. A little below this the gut resumed its normal size, just above it measured four inches in circumference, and higher up was much distended. Below the constriction the mucous membrane was bright red—above it was pale. A large quantity of thin fluid fœcal matter occupied the gut above the constriction, and also the stomach, but with the exception of considerable pulmonary congestion, nothing else abnormal was revealed by the *post-mortem* examination.

The diagnosis of probable intestinal obstruction was made in this case before the fact of the non-passage of fœces was made out, mainly on the ground of the suddenness of the onset of the pain, &c., its paroxysmal character, the absence of fever and of any other morbid sign or symptom. By further observation this diagnosis was made almost certain, and it became probable that the obstruction was not low down.

The sequence of events was probably as follows :—

1. The perforation of the vermiform appendix by the concretion found half way out of it.
2. Peritonitis, and a tendency to matting together of the intestines.
3. A kink and tight strangulation by the effused lymph of the congenitally narrowed portion of the jejunum above described.

It is of course impossible to say at what period after the beginning of the peritonitis the obstruction occurred, but judging from the pain very soon assuming a paroxysmal character, it was probably early. The stercoraceous vomiting, though occasionally taking place in peritonitis without mechanical obstruction, was here very distinct and profuse, and considering that the symptoms of general peritonitis were not very marked till the close, and the temperature was scarcely above normal, this was a valuable sign of obstruction.

The peritonitis caused by the perforation of the frequently peccant vermiform appendix would alone have caused death in this case ; the second natural malformation, viz., the narrow part of the gut, being, however, an ever present source of danger, and contributing its own special symptoms.

The boy stated, when he first came to the hospital, that he had a blow in the stomach when playing at football, which hurt him very much : possibly this may have expedited the progress of the calculus through the wall of the appendix.

Dilating the Os Uteri during Labour.—From a conversation upon this subject that took place at the Obstetrical Society of Philadelphia (*Philadelphia Medical News*, April 12th), it would seem to be the general opinion that the precept usually given of abstaining from the dilatation of the os is not approved of by several members of the society, who have found the practice of careful dilatation to hasten slow labours, and to be unattended with bad effects, and especially when the waters have been prematurely discharged. According to some, even an irritable os is thus subdued, and when its rim is wiry and thin, or hard and thick, it softens and yields.

Medical Times and Gazette.

SATURDAY, MAY 10, 1884.

The imperfections, real and alleged, of the Lunacy Laws formed the subject of a discussion in the House of Lords on the 5th instant. Lord Milltown called attention to observations made by Mr. Baron Huddleston in the case of "Weldon *v.* Winslow ;" and moved, "That in the opinion of this House the existing state of the Lunacy Laws is eminently unsatisfactory, and constitutes a serious danger to the liberty of the subject." In support of the motion, Lord Milltown, in addition to copious quotations from the judgment given by Mr. Justice Manisty on the application of Mrs. Weldon for a new trial in her case, as well as from Mr. Baron Huddleston's charge, drew largely on his own imagination and fears. He informed his noble brethren that a constable or a relieving officer may arrest any one found wandering abroad, and bring him before the Justices of the Peace, and on the certificate of one medical man and the warrant of the Justices, such a person might be incarcerated for life ; and "thus," he added "any one of your Lordships might be confined for life as a pauper lunatic." In like manner and degree the noble lord magnified all the weak points in our Lunacy Laws, and exaggerated the dangers that may possible arise from such imperfections, while he ignored or minimised the value of the safeguards that those laws provide. He concluded with an attack on the system of private lunatic asylums, which he considers a most damning blot on the Statute Book, and which, he declared, the Earl of Shaftesbury had, some years ago, described as utterly abominable and indefensible.

Lord Shaftesbury, who followed Lord Milltown, did not refer to the subject of private lunatic asylums, but contented himself with pointing out the reality and value of the safeguards contemned and condemned by Lord Milltown, and spoke, at considerable length, of the immense improvements that have been made in the management and treatment of the insane during the last sixty or seventy years. It was natural that his lordship, who has for more than fifty of his eighty-three years of life been connected with the Lunacy Commission, should feel that the present abuses of the Lunacy Laws are absolutely trivial compared with those he has himself seen and done so much to remedy. He did not, however, affect to suppose that the present laws are even humanly perfect. Lord Coleridge insisted that, though all the improvement noted by Lord Shaftesbury has happily been achieved, much yet remains to be done. In the great majority of cases of alleged insanity, it is absolutely clear, he said, to the intelligence of any ordinary person moderately acquainted with the matter, that the individuals confined are sane ; and in another large class of cases it has been equally true that the persons whom it was proposed to confine were not insane. But on the dividing line between these classes the system of the

Lunacy Laws, though excellent on paper, broke down. It is always on the dividing line between conditions that a system, always most strained, must at times break down. Lord Coleridge told us nothing new in his criticism of the law, and suggested no means for making it less liable to break down.

The Lord Chancellor reminded the House of the need of looking at the statements made, and at the subject before them, in a sober-minded practical way. They must remember that the Lunacy Laws are made for lunatics; and that, while lunatics have to be protected against themselves, and to be treated with a view to cure, the sane public have to be protected from the insane. In these conditions very wise and well-framed laws are needed to secure the safety and well-being of the lunatic without infringing on the liberty of the sane. He thought it was worth while to consider whether it was possible to amend the present law so as to diminish the possibility of abuse in the administration of it, without the danger of interfering too much with its proper administration; and he undertook, on the part of the Government, that should they retain the confidence of the country, they would in another session bring forward a Bill to consolidate the existing laws with improvements recommended by the Committee of 1878, and others that may seem advisable.

Lord Salisbury said that a reform of the Lunacy Laws was much needed, though he recognised the great difficulty of dealing with the subject satisfactorily. His tone was, however, like Lord Milltown's, much exaggerated; and, like Lord Coleridge and Lord Milltown, he also denounced private lunatic asylums. None of these critics appear to remember that such asylums are a natural outcome of our English system of providing as much as possible for our needs by private enterprise, instead of trusting to the State to help. The end of the debate was, that Lord Milltown, in view of the promise made by the Lord Chancellor, withdrew his motion.

When the House of Commons went into Committee of Supply on Monday last, it spent some hours over the Army Estimates, and a considerable portion of that time was devoted to a discussion on the vote of 303,000*l.* for medical establishments and services. Mr. Dawnay used the vote as an opportunity for delivering himself of an attack on the working of the Medical Department in the Egyptian campaign. He appreciated, and was "satisfied with" the unflagging energy shown by the medical officers of regiments in the discharge of their duties at Tel-el-Kebir, and at the front generally; but that "could not make him tolerate or pass over that departmental apathy and want of organising power which were forced upon him" by the want of arrangements for the care of the sick at Cairo and Ismailia. He appears to accept all the extraordinary evidence given by Lord Wolseley, and other hostile witnesses, before Lord Morley's Committee; and considers that the alleged "shortcomings" of the Army Medical Department, and "breakdown" of the Army Hospital Service, were indisputably and fully proved.

All this is however an old story, and the accusation, brought against the medical officers, and the question of the alleged failure of the Medical Department were fully thrashed out and disproved in our columns, from the evidence before Lord Morley's Committee, when the Blue Book containing the proceedings of that Committee was published. It was easy, therefore, for Dr. Farquharson and Dr. Lyons to fully vindicate the efficiency of the Medical Department; but it is very gratifying to note that both Colonel Stanley, who was Secretary of State for War during Lord Beaconsfield's Government, and the present Secretary of State, the Marquis of Hartington, admitted that "the charge of inefficiency and want of care brought against the medical officers had been entirely dropped, and they had come out of the inquiry, so to speak, with flying colours;" and that "it was conclusively proved by the investigation by Lord Morley's Committee that there was nothing which could be called a breakdown in the medical arrangements in Egypt." Lord Hartington admitted, of course, that "there had been a certain amount of inconvenience, a certain amount of hardship, and a certain amount of want of preparation at particular stages of the campaign;" but he said, as he has said before, and as we have all along contended, that it has been conclusively proved that such inconveniences and such failures as did occur were owing, not to any lack of duty or management on the part of the Medical Department, but either to the conditions of the campaign, or to the fact that there was a necessarily sudden military movement which made it impossible for the Department to be always so fully and efficiently ready as the medical officers desired, to perform all the duties which fell upon them.

It scarcely need be added that it was not denied that there was a failure in "the thorough organisation of the departments of supply to the Army." It is admitted on all hands that the organisation of the Army Hospital Corps was, and is, very faulty; that the nursing was bad, and the cooking was bad. But a Committee to enquire into these matters is now sitting; and some improvements, recommended by Lord Morley's Committee, have been accepted by the Government. It has been determined to amalgamate the Army Hospital Corps with the Medical Department, and to provide efficiently for the full training of the men of the corps; and Dr. Farquharson rightly congratulated the Secretary of State for War upon the abolition of the useless, worse than useless he might have said, post of Military Commandant at Netley. We join with him in hoping that the grievance complained of in that respect will not be perpetuated in another form; that the officer appointed to perform some of the duties of the former commandant will be subordinate to the principal medical officer; and that the latter will have no superior officer except the officer commanding the district.

Mr. Dawnay's real object, however, in framing his indictment against the Army Medical Department was to arraign the unification system of appointing the medical officers, or, as it is more generally called

the departmental system, and to urge the absolute necessity of returning to a modified form of the regimental system. Much of the debate dealt with this matter, and not profitably; it is by far too large and important a subject to be discussed on a vote in Supply. Colonel Stanley holds that a compromise between the departmental system and the regimental could not fail to produce good results, and he has never been able to see any difficulty in arranging it; while Lord Hartington is of opinion that the results of the present system are most satisfactory; that it would be unwise, and certainly very difficult, to introduce changes which "are altogether opposed to the feelings of the medical profession," and were rejected by a very large majority of Lord Morley's Committee. The truth really lies between the two opinions; and probably it would not be difficult to arrange a good working compromise between the systems in question, each of which it is admitted has real and grave faults, if the Government were not so determined not to spend one shilling more than they can be forced to spend on the Army Medical Department. No Ministry has as yet had the courage to endeavour to educate the House of Commons to anything like a fair comprehension of the importance of the relation which the full and effective organisation of the Medical Department bears to the efficiency of an army. It must be admitted that the Secretary for War was somewhat vague in his statements with regard to the proposed large general army hospital to be established in London. It cannot be entertained, he said, until the question of regimental hospitals has been thoroughly disposed of; but that cannot be disposed of "for some time to come;" and the medical arrangements for the Guards cannot be assimilated to those of the rest of the army till a general army hospital has been established in London. The meaning of it all is, however, that the regimental system of medical officers will still be permitted in the Household Troops.

THE *Conversazione* at the Medical Society, on Monday last, with which the present session was brought to a close, was very successful. The whole suite of rooms was thrown open, but although a large number of fellows were present, there was at no time of the evening any of that overpacking, which is the bane of so many gatherings of this kind. Mr. Durham, the President, aided by the energetic and courteous secretaries, Dr. Fowler and Mr. Gould, did the honours of the evening in a very pleasing manner. The rooms looked exceedingly well, the walls being decorated with etchings and autotypes. There was the usual display of microscopic varieties, chiefly of the bacterial type, and of new instruments, including some excellent electrical apparatus both for lighting and therapeutic purposes. Dr. Theodore Williams delivered the annual oration. He dealt chiefly with the social aspects of the medical profession, and pointed out in what manner its status and general usefulness might be promoted. The Medical Society shows a vitality and freshness which the sister societies might not unprofitably imitate; such gatherings as that we now chronicle cannot fail to interest its fellows, and add strength and cohesion to the Society at large.

THE list of communications on Tuesday last at the meeting of the Pathological Society was longer than ever, but it was nevertheless given a good account of, mainly by dint of having next to no discussion on any of the specimens, and referring those about which there seemed to be any doubt to the Morbid Growths Committee. We do not wish to imply that the officers suppressed discussion, but there was no very manifest tendency on their part to stimulate it. The revival of the practice of showing specimens by card is one that we greatly rejoice to see; many pathological curiosities can thus be shown and recorded without occupying time that might be better employed in discussing difficult or doubtful points. The number of card specimens was greater than on any previous occasion since this very useful innovation was started some four years ago.

MR. SYDNEY JONES showed a magnificent series of bones from a case of multiple exostoses. It is difficult to believe that any finer collection exists. Mr. Knowsley Thornton showed the spleen which he had removed by abdominal section from a young woman, as mentioned in our last number. The patient appears to be making a speedy recovery, a result which we have hardly learnt to look for from the hitherto recorded cases of this operation. Of the papers, that of Dr. Samuel West on tumours of the lung was the most important. He traced very clearly the growth of the so-called primary tumours from the lymphatic structures at the root of the lung, and pointed out how they invaded the lung by following the course of the bronchi. His paper constitutes a valuable contribution to our knowledge on this subject. Mr. Treves' case, too, deserves mention, as illustrating the difficulties that may be met with in the diagnosis of sarcomatous or other growths when they apparently assume the characters of an infective disease.

THE ordinary meeting of the Obstetrical Society was held on Wednesday evening last, May 7th. Three papers were read. The first was by Dr. Arthur Mitchell, on the effect of strong mental emotion in the mother in producing idiocy in the child. The author said that he had convinced himself of the occasional causation of idiocy in this way, supported this opinion by cautious *à priori* reasoning, and quoted some cases in illustration. But he admitted that the evidence he could adduce was not demonstrative. The paper, therefore, although it would influence greatly the opinion of those who knew the soundness of Dr. Mitchell's judgment, yet could not be said to throw fresh light on the subject. Dr. Charles West, and Dr. Fletcher Beach were among those who took part in the discussion. Then followed a remarkable case of extra-uterine fœtation, successfully treated by extraction of the fœtus per vaginam, and separation and removal of the placenta, communicated by Dr. Mathieson, a Canadian physician. So unusual a case called forth some criticism. Lastly, a short paper by the President, on a unique case of cystic degeneration of the cervix uteri, the cyst containing gas. The President, at the beginning of the meeting, called the attention of the Society to the large number of papers waiting to be

read, and the consequent necessity for brevity in the description of specimens and discussion thereon. This Society, we think, would do well to follow the example of the Pathological, in economizing time by permitting specimens to be shown by card.

The Quarterly Meeting of the Medico-Psychological Association was held at Bethlem Hospital, on Tuesday, May 6th, Dr. Orange, President, in the chair. A letter was read from Dr. Manley, the President-elect for the ensuing year, announcing his inability, through ill health, to fulfil the office to which he was elected at the last Annual Meeting. A resolution of regret and condolence at this having been duly passed, the President stated that, acting under the Association's Rule providing for such emergency, the Council had exercised the duty imposed upon them by electing Dr. Rayner to act as President during the coming year. Papers were read by Dr. Hayes Newington, on "Unverified Prognosis," and by Dr. Bonville Fox on "Exaltation in Chronic Alcoholism," and Dr. Mercier introduced resolutions in favour of the Transference of Lunatics of Foreign Nationality to their own countries.

Samuel Gross, "the Nestor of American Surgery," as he has been called, is dead. He was born in 1805, took his M.D. degree and commenced practice in Philadelphia, in 1828. His first work on "Diseases and Injuries of the Bones and Joints" was published two years later. From that time until 1881, when he gave to the world his last publication, "John Hunter and his Pupils," his literary activity was immense. His well known "System of Surgery" first appeared in 1859, and has since passed through several editions. He was also for many years engaged in different posts as a medical lecturer, and in 1856 was appointed to the important one of Professor of Surgery in the Jefferson Medical College, Philadelphia. Dr. Gross only retired from the active practice of his profession about eighteen months ago.

It is with great regret that we observe in the *Athenæum* a notice of the death, at the early age of 49, of the enterprising bibliographical publisher, Frederick Leypoldt. The leading spirit in devising and conducting several of those valuable aids to the literary and publishing world, of which the United States may so justly be proud, our view of his efforts is chiefly derived from a knowledge of the great services that he rendered to medical literature by carrying on the *Index Medicus* at a great expenditure of money, time, and exertion, and that amidst a most discouraging absence of appreciation, or at all events of pecuniary aid. Those who have had opportunities of judging of these efforts in sustaining so valuable a publication, can only speak of them with admiration and gratitude, and express a not very sanguine hope that their withdrawal may not be followed by the cessation of this useful compilation.

We have been requested to call attention to the fact that the competition for the Alexander Memorial Prize and Gold Medal is still open, and that essays may be sent in as late as the last day of the present year. The competition is limited to Executive Medical Officers of the Army on full pay, and the subject is one which must deeply interest the Department, viz.: "Antiseptic Surgery and its application in Military Hospitals and in the Field."

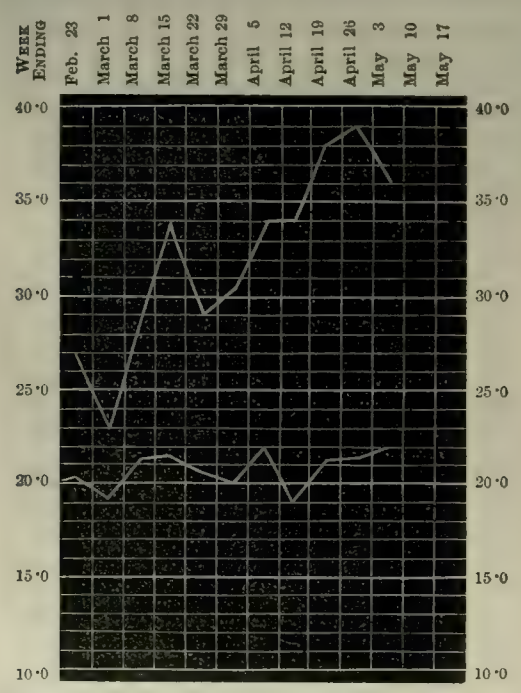
Amongst the newly-elected Fellows of the Royal Society, the medical profession will note with pleasure the names of Professor M'Kendrick, Professor I. B. Balfour, Dr. C. S. Roy, and Dr. A. Ransome, of Manchester.

Dr. Cameron's unsuccessful attempt to secure State regulation for cremation has met, on the whole, with sympathy from the lay press. The *Times*, with that cynical bias against "sentiment" which usually leads it so far astray in its opinions on medico-legal problems, while expressing itself strongly in favour of Dr. Cameron's proposal, attempts, most unfortunately, to minimize the single valid argument against it, viz., the increased difficulty that cremation would put in the way of detecting cases of poisoning. This is an argument which science will have to meet, and doubtless will meet, if cremation is to become common. It is not an argument to be pushed aside with the totally inapplicable aphorism, *de minimis non curat lex*. The *Standard*, on the other hand, always well informed and reasonable on medical subjects, gives full weight not only to the poison-detection difficulty, but also to the "sentimental obstacles." It thinks that the promoters of the Bill ought to have converted the public to their views before endeavouring to convert Parliament. The *Morning Post* also thinks that the "sentimental objections to cremation are very powerful, not to mention those based on the facilities which might thereby be afforded to the poisoner." Nevertheless, it frankly confesses that if no stronger arguments can be found against it than were supplied in the speeches of Sir William Harcourt and Sir Richard Cross, a crematorium will at no distant day be added to our national institutions. The *Daily Telegraph* differs from the *Standard* in thinking that popular opinion has already undergone a change in regard to cremation, but it holds that "the feelings which circle round the disposal of the dead are very deep and tender, and that it would be folly to attempt legislation tending to shock or outrage these tender sentiments." As to the poison difficulty, it is sure that "some device can be invented to checkmate the vile purposes of the secret poisoner." The *Daily News* also admits that this difficulty must be surmounted if the Bill is to pass, and holds that "prejudice against cremation must be treated tenderly, however unreasonable it may seem." Taken together, these utterances show that the press is becoming educated, even if the public is not. Five years ago the dailies would have treated this question in very different style.

Many years since, if our memory be not playing tricks with us, we read a fairy tale in which a little boy besought his fairy godmother that he might never again feel pain. His prayer was granted, with results which were to be calculated upon by any one of

ordinary intelligence, and which pointed the obvious moral that even pain has its uses. The same idea has been lighted upon by Dr. Milner Fothergill, and refurbished with all his well-known gift of physiological and pathological illustration, into an elaborate article in the current number of the *Contemporary Review*—almost the only paper of medical interest in this month's magazines. The article is grandiosely entitled "The Logic of Pain," and has one conspicuous merit, brevity.

The number of deaths registered in London last week, viz.: 1,697, was higher than that recorded in any previous week of the present year, and exceeded the ten years' average by 82. The zymotic deaths, however, showed a decline, though they were still 47 above the average, and the rate, as may be seen in the chart, still remains unpleasantly high. The smallpox



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the first five weeks of the present quarter.

epidemic continues to spread, and on Saturday last, five hundred patients were in hospital, but the weekly tale of deaths amounted to only ten. The fatal cases of scarlet fever were slightly in excess of the average, those of enteric fever slightly below it. Measles and whooping cough still continued their excessive demands on infant life, causing between them close on 200 deaths, or 75 more than is usually the case at this period of the year. The most remarkable feature of the week was that no case of suicide was registered, the usual number, as deduced from ten years' experience, being seven all but a decimal point.

In his report for the second half of 1883, Dr. Collingridge is able to show that he and his subordinate officers, representing the sanitary authority for the Port of London, have not been idle. Under the head of unsound meat, the report shows that there has been no lack of activity on the part of the inspectors; in one instance 3,388 carcases of sheep were condemned, and in another 327, whilst thousands of tins of tinned meats were condemned and destroyed during the half year. There do not appear to have been many cases of infectious disease, but whenever such were reported steps were at once taken for the disinfection of the ship, or if she had sailed elsewhere, the medical officer of health at her destination was communicated with. The total number of vessels examined was 14,043, of which only 5·1 per cent. required cleansing. The results of a census taken to ascertain the floating population of the Thames, give the number as varying between 22,000 and 23,000, the average number of vessels being from 2,500 to 3,000. Observations on the temperature of the Thames have also been resumed, from which we gather that although the temperature varies far less at Gravesend than it does at Greenwich, still it is almost invariably higher.

It augurs a satisfactory state of affairs, when a medical officer of health remarks that "there has been so little sickness during 1883, that there is very little to comment upon." The fortunate official in the present instance is Dr. John Shea, and the remark occurs in his annual report on the Wokingham Urban Sanitary District. Dr. Shea is also in charge of the adjoining rural district, and he is able to show that while in the former the death-rate during the year 1883 was 18·7 per 1,000, in the latter it was only 14·9; singularly enough, however, the zymotic rate was the same in each of them, viz., 1·8 per 1,000. During the past year, it has to be noticed, Wokingham has completed its sewage scheme, and the Thames Conservators have accordingly withdrawn their summons against the Local Board for polluting the Emm Brook.

We hear from Glasgow that it has now been definitely arranged by the representatives of the governing bodies giving technical and scientific teaching in that city, to devote the whole of the buildings of Anderson's College to the purposes of the new Technical College, and to give 5,000*l.* to the medical faculty towards the building of a new medical school in the vicinity of the Western Infirmary. The money will be held by Trustees, who will be the governing body of Anderson's Medical School. It is estimated that a suitable building and equipment will cost from 10,000*l.* to 15,000*l.*, and although the amount offered is inadequate, yet it is expected that the Trustees and the friends of the College will make an effort to raise the rest of the sum required, so as to render the new Medical School worthy of Glasgow. When thus equipped, Anderson's Medical School will enter upon a new phase of existence, and be able to act as a healthy stimulus to the University, and maintain the honours of its past history.

In reply to a very complex question, put on Monday in the House of Commons, the President of the Local Government Board said that the Board had no know-

ledge, except from the public press, of the medical report that the reopening of the Homerton Hospital for small-pox patients had caused a spread of the disease in its neighbourhood; but he understood that the Board of Managers intended to inquire into the matter. He knew that they were doing all they could to prevent any possible risk of the spread of the disease from the hospital, not merely by largely reducing the number of patients admitted, but also by clearing adjacent properties, which had been purchased for the purpose of securing a free space round the hospital. With regard to the Diseases Prevention Act of last session, Clause 2 was not intended to deprive the public of any legal protection they possessed against asylum managers or any other local authority carrying on a hospital in such a way as to cause the spread of disease, and the Local Government Board do not consider that the clause has that effect. The Act has, as yet, never been put into operation in consequence of an epidemic of either fever or small-pox; and the Board have never contemplated its being put in force except in the case of an outbreak of cholera. The Board, moreover, are fully satisfied that the managers of the Asylums Board desire to take all due precautions to prevent the spread of disease from any of their hospitals.

With regard to this question, a correspondent, who says that he has had opportunities of carefully inspecting the hospital, writes: "It is true that the board have complied with certain of Dr. Tripe's recommendations, but they have not done all in their power to minimise the dangers inseparable from the position of the hospital. The laundry, for example, almost abuts on the boundary wall, which is of insufficient height, being much lower than the roof of the washhouse, from which the steam escapes, and not 60 feet from a row of small houses; the foul linen is allowed to lie outside the building for some hours before being put into carbolic water (for which I would suggest the substitution of chloride of zinc). The position of the drain ventilators beneath the windows of the wards, is open to criticism, and other defects are noticeable. But above all, there can be no doubt that only one block, Pavilion No. 1, is really suitable for the treatment of small-pox cases. During twelve months when it alone was used for this purpose, not a single case occurred in the adjoining streets, and it appeared to me, that if the board really felt themselves compelled to provide accommodation for more cases than could be received into this particular block, a temporary building might be erected in the open space between it and the iron railing which divides the grounds, where it would be even more remote from the nearest houses. The whole history of small-pox infection has yet to be written; for, making every allowance for errors in construction and administration of hospitals, experience has proved, beyond the possibility of doubt, that the contagion of small-pox is capable of being carried by the air for far greater distances than those of fevers; and that while fever hospitals, where the most ordinary case is taken, have never been shown to be a source of danger to the surrounding population, small-pox hospitals, unless under exceptionally favourable circumstances, are always such, to a greater or less extent. Since, however, the retention of small-pox cases in their own confined, overcrowded, and furnished homes, is a still greater danger, as involving the maintenance of innumerable *foci* of contagion, it behoves sanitary authorities everywhere to avoid giving any occasion of provoking or intensifying the prejudice, by no means unfounded, entertained by the public against hospitals for infectious diseases, and shown by the opposition, which ever since the case of Pearson Hill *v.* the Asylums Board, has been presented to every attempt at opening such in the metropolitan area."

The example of the medical officers of English schools has been quickly followed across the Channel, and the *Union Médicale* is able to announce with much satisfaction that a society has been formed by the Medical Inspectors of Schools in Paris. According to the rules of the Society, its objects are principally the due examination of the numerous and too little explored questions relating to the hygiene of schools, and the defence of professional interests, so that a field of great extent is open to the investigations of the new Society. The *Union* believes that it may do much for infantile hygiene, and for the amelioration of school buildings and surroundings, which are at present in a very defective condition in Paris. It will also have performed a very meritorious work if it succeeds in inducing the municipality to listen with more attention than hitherto to the counsels of its medical officers.

One of the most important and best-paid sanitary appointments in the world—that of Officer of Health to the city of Calcutta, with a salary of over 1,000*l.* a year—is vacant, and we have reason to believe that any Englishman who has had long experience of city sanitary work in this country, and can command good testimonials as to scientific ability, will have a very fair chance of being elected. The Municipal Commissioners of Calcutta, who are the electors, met, on April 10th, with a view to filling up the vacancy caused by the retirement of Dr. McLeod, and their choice very nearly fell on a Dr. Von Horck, who is at present in India on a mission from the German Government, but who had expressed his willingness to delay his return for a few years, if elected. Fortunately wiser counsels prevailed, and in the end the meeting was adjourned for three months, with the understanding that further applications would be received. The report of the meeting, including a most able speech by Mr. Jones, the commissioner, to whose influence the postponement of the election was mainly due, is to be found in *The Englishman* for April 11th. We hope that some of our skilled sanitarians may be found enterprising enough to offer themselves for the appointment. The future health officer will have a splendid field for work. In spite of all the efforts of the last fifteen years, the sanitary state of Calcutta is still most unsatisfactory, and there are problems connected with its drainage and water supply which are crying out for solution. An able and conscientious health officer would probably soon see his work telling palpably on the death-rate—that sensitive barometer which accurately registers the amount of sanitary pressure.

The *Allgemeine Wiener Medicinische Zeitung*, of March 11th, contains the following advertisement in prominent type—"A young unmarried doctor of medicine, of the Jewish persuasion, has the opportunity, by marriage, and the succession to a lucrative dental practice, of insuring a very agreeable existence. The practice can be proved to be worth 10,000 florins per annum. The young lady in question is the daughter of highly respectable parents, seventeen years of age, handsome, well brought up, and equally well educated. Her father is desirous of retiring from the business, and will make over to a young doctor of medicine, without compensation, his dental practice, and his excellent dwelling house, with all the material, dental instruments and apparatus of the value of from 8,000 to 10,000 florins. A knowledge of the dental art is not at first requisite, as, under the tutelage of the present professor, this can be acquired in a few months." Applicants are referred for further information to the Editor of the Journal.

Most of us, through the medium of Uncle Remus, have probably become familiar with the terrapin as a genial though somewhat wily animal, but there are other species of terrapins which are not so pleasant to read about. In the Medical Reports published by the Inspector-General of Customs in China, Dr. J. Macgowan, in his report on the health of Wenchow, gives an interesting and amusing account of some of the poisonous animals of that part of the world, and of the superstitions connected therewith. It appears that there are many varieties of terrapin, such as the three-footed, the red-footed, the single-eyed, the non-retractable head and foot, the sunken-eyed, and others which are not to be eaten. The edible kinds are, however, subject to certain conditions; thus, they may not be eaten with spinach or with hen's eggs, ducks or rabbits. Pregnant women partaking of them will bring forth short-necked children, and consumptive persons troubled with abdominal swellings should not use them for food.

The three and the four toed terrapins may be eaten, but the five-toed, which are transformed snakes, and the six-toed, which are transformed scorpions, are fatal poisons. But for thoroughly business-like habits, they none of them can compare with the three-legged terrapin, to which, if the following tale be true, we must henceforth accord a place in the front rank of the most deadly poisons. After being told that it is very cold in its nature, we read: "A man of T'aitsang ordered his wife to cook a three-legged terrapin, which he ate and went to bed. Soon after he was changed to blood and water, his hair alone remaining. Neighbours, suspecting foul play, informed the magistrate, who could make nothing of the case, but ordered a prisoner, who was condemned to death, to eat one of those tripedal chelonians. The consequence was, that nothing was left of the miserable culprit but bloody water and hair, whereupon the widow was acquitted."

It has been very gratifying to us—and all the more gratifying because so little expected—to find Professor Gairdner taking up the question of the position and payment of the medical profession in Glasgow, to which we called attention a fortnight ago. In another column we publish some remarks which he made at the last meeting of the Glasgow Medico-Chirurgical Society, with reference to our notes on the subject. We are glad to hear from the lips of such an authority that there has been a marked and progressive improvement in the remuneration of medical services during recent years, but according to our information the scale of payment of all grades of the profession is, with a few notable exceptions, considerably inferior to that which rules in other opulent centres; and we would again seriously impress this fact on both the profession and the public in Glasgow, that, human nature being what it is, low fees are apt to mean inefficient work. Doctors, like other men, do their best work when they feel that they are earning their salt. That, as Dogbriar says in the play, is "morality and philosophy."

THE APPEAL OF THE APOTHECARIES.

On Tuesday some four-score licentiates of the Worshipful Society of Apothecaries assembled in the Hall at Blackfriars to protest and take measures for petitioning against the clause of the Medical Bill which excludes the Society from representation on the proposed Medical Board for England. The meeting was hearty in its sympathy with the Company, and practically unanimous in approving the petition which it is intended to present to the House of Commons. It also cordially adopted the proposal to appoint a committee to interview the Minister in charge of the Bill, and there was no very great difference of opinion as to who should form the committee. So far, then, the executive of the Company may be fairly congratulated on the success of their attempt to bring pressure to bear upon the Legislature, but it remains to be seen to what extent their endeavours will be supported by the general body of licentiates. Tuesday's meeting was not attended by more than one per cent. of the ten thousand licentiates said to be in existence, and the Government would be justified in attaching very little weight to the opinion of such a gathering. But before many days are over the petition will doubtless be in the hands of every licentiate who is to be got at, and if anything like a fair proportion of possible signatures is obtained, the petition will probably have a definite influence on the decision of the Government. This being the case, we beg those licentiates who may read these lines to weigh very thoughtfully the effect of their action in the matter, and anxiously to ask themselves the question, whether it is expedient and in the best interests of the whole profession, present and to come, that the prayer of the petition should be granted. We are as much interested as any of them can be in the venerable character of the Apothecaries' Company, we are quite as willing as they to admit the good work that it has done in the past, and we have a better practical acquaintance than most of them, both with the examinations at Blackfriars, and the internal management of the Company. And looking at the question from all points

of view, except that of a vested interest, we have come to the fixed belief that the Government have been quite right to exclude the Company from a share in the direction of medical education, that it is the one point in the Bill in which they have shown strength, and that to make them waver on this point, would immensely increase the difficulties, already sufficiently numerous, in the way of speedy legislation.

We will give our reasons for this belief. In the first place we would ask, can the Apothecaries Society show any claim to a voice in the direction of medical education and examination in the future? Yes, exclaims the Society, we represent ten thousand licentiates, nearly half the names on the Register. Pray, how does it represent them? Does it allow them any voice in the election of its executive? Does it ever take their opinion on any point? Certainly not. It is difficult to say exactly how the handful of aged apothecaries who govern the Society are chosen. But assureely, neither the thousands of licentiates nor the hundreds of members have any voice in their election. So far as representation is concerned, the Court of Assistants of the Society is the closest corporation in existence. They represent no one but themselves, and until they saw their existence as an examining body threatened, they consulted no one but themselves. We fail altogether to see how any reasonable man can support their claim to direct medical education on the score that they represent ten thousand licentiates. O, but they will reply, we have great experience in the matter, we have been examining medical students week after week for years. Well, experience in examining is not quite the same thing as experience in educating, and, until lately, anyone with systematic experience of the latter, was practically excluded from the Court of Examiners. But let that pass. The Board, we admit, contains a few able men, and might possibly have a fair claim to a representative on the Medical Board, if it continued to examine. The representative, however, would not be elected by the examiners, but by the Court of Assistants, a very different thing, and the moment the Bill passes, the sole argument for the right of even the examiners to representation will cease to exist, for they will no longer have the opportunity of acquiring experience of examination, at any rate in pass subjects. So that this is practically what the licentiates are asked to petition for, viz.: that a score of old general practitioners, chosen by seniority from a close body of self-elected members, with no special knowledge, or opportunity of gaining knowledge, of the ever advancing conditions of medical education and examination, shall have the privilege of seating a member in perpetuity on the board which is to direct the medical study of the future. Can any licentiate, with a proper respect for himself and his profession, put his name to a petition in support of an anomaly such as that? It will no doubt be suggested to the licentiates in general, as it was to those present at Tuesday's meeting, that the authorities of the Society may fairly claim a voice in medical education, on the score that they have special knowledge of what is required by the public of the general practitioner. But the representation of that special knowledge is amply provided for by the Medical Bill, which places the representatives of the general practitioners, not on the Medical Boards, but on the body which is to control them—the Medical Council. Besides, what guarantee have the licentiates that the Executive of the Apothecaries Society have this special knowledge? None whatever. If the Court of Assistants, who govern affairs at Blackfriars, had come generously before the licentiates and said, "We will at once take such steps as will in the future place our election in your hands," one might perhaps, with a clear conscience, have advised the licentiates to sign the petition, for there would then have been some reasonableness in its appeal; but in the absence of any such sign of a desire to reform itself we can only again express the hope that the licentiates will not support the Society in its ill-advised attempt to imperil the passing of the Medical Bill.

THE DEBATE ON THE ARMY MEDICAL DEPARTMENT.

It was to be expected that the discussion which followed the proposed vote for the Army Medical Establishment for 1885, would turn upon the Report of Lord Morley's Committee, and their recommendations for the improvement of the Medical Department in the future. Our readers will remember that some great questions were raised in this report. There was the power of direct purchase, for instance. The *great* complaint against the doctors was, that when "Transport" failed, when "the Commissariat" could not furnish supplies, and the combatants could give no assistance; the "Medicos" declined to assume a power which by regulations they were *forbidden* to exercise; and refused to purchase recklessly and indiscriminately whatever was or was not wanted. This was really Lord Wolseley's point in his attack on the Army Medical Department. We never expected that this complaint would be alluded to in Parliament. It is too dangerous, too delicate, to handle. When men's minds are excited by tales of battles and distress, it is all very well to cry with Lord Wolseley, that it matters nothing to England whether a loaf for a sick or wounded soldier costs a penny or a guinea! But when the battle story grows stale and only the bills remain to be paid, people think differently, and perhaps Lord Wolseley himself would doubt now whether the doctors should exercise an uncontrolled power of purchase. But there were also minor points raised by the "Report of the Committee" which were certain to be seized upon by military critics.

The combatant officers who have theories may be classed in two great divisions. The first clings to the old traditions of the service, when the regimental system was everything, and the doctor was the genial companion of the mess-table, the friend in need of every old soldier, and, above all, a civilian permitted to wear a red coat indeed, but never to be entrusted with military command, not even in his own hospital. The second and the younger division has accepted the inevitable. It recognises the fact that economy is a necessity, that regimental hospitals entail totally un-

necessary expense and monopolise the services of medical officers in routine duties, when they might be better employed in hard professional work at central hospitals. Of course there can be no agreement between men who hold such diametrically opposite opinions. "Unification" has an additional disqualification in the eyes of martinets; it renders *command* necessary; it requires that medical men should be supreme in their own hospitals; it obliges them to draw together into a scientific corps, whose members must necessarily become more independent, *not of military*, but of regimental rules and regulations. Offensive as this must be to the old-fashioned school of warriors, we are inclined to believe that the course of events will tend to benefit the service and the doctors themselves, and that a return to the regimental system, now that short service is the rule, would be an absurdity. The old soldier may have lost the friend who was supposed *to know his constitution so well*, but old soldiers are terribly at a discount. We have no idea that the young soldiers will suffer in the least from the unification system, and those who have a kind of grievance at losing the regimental doctor, the Colonel and officers and, above all, the officers' and soldiers' wives, must make up their minds to put up with the same kind of inconvenience which they had to suffer before they became members of regiments, and will have to suffer again when they return to civil life. But it was natural that in the discussion on the vote the upholders of the old system should vent their wrath.

Mr. Dawnay did his best to rake up all the old gossip of the campaign in Egypt, the want of puddings and pies, and other luxuries, which it is to be presumed would have been in the hospital larder under the regimental system. He pointed out that the orderlies were not half so polite as they should have been, and that the Medical Department seemed afraid of responsibility. He paid compliments to the members of the Committee for their recommendations generally, although one hardly sees why, as the members seem by no means of the same mind as Mr. Dawnay; but his anger overcame him when he denounced the recommendation that the medical arrangements of the Household Troops should be assimilated to those of the rest of the army. We were glad to learn from those who followed Mr. Dawnay, that unification was likely to be accepted as a rule, even if, for a time, the regimental system were retained in the Guards. The Marquis of Hartington put the plain facts before his audience when he said that unification was economically necessary, and had certainly not been attended by any evils which could affect the well-being of the sick and wounded. The intention of the War Office to consider at some future day the institution of a great Central London Military Hospital, seems indeed to indicate that even the regimental medical system of the Guards is doomed. In the meantime, unification must ensure progress which will benefit the Medical Department, the service and the nation generally, by encouraging more professional knowledge and surgical skill than could be generally acquired or maintained under the old isolated regimental system. Unification, of course, as it develops, will necessitate a stricter union between all who work together to help the sick and wounded, and place the doctors and the members of the Army Hospital Corps in one department, under one command, which of necessity must be medical. But surely this is not a matter for regret.

COMING LEGISLATION IN LUNACY.

In the House of Lords on Monday night a conversation took place upon the Lunacy Laws, the text for it being furnished by Baron Huddleston's remarks, which we have already quoted and commented on, concerning the facilities that exist for the incarceration of persons in asylums. Baron Huddleston's view is, as we showed at the time, erroneous; but there is no doubt that public opinion has reached a degree of intensity on this subject that will compel the Government to alter the law, and some alteration was explicitly promised by the Lord Chancellor on Monday. It is not difficult to see the direction that this alteration will take. It will be two-fold, and will deal, first, with the formalities to be gone through in committing patients to asylums; and, secondly, with the method of liberating them from private asylums. The intended legislation is not likely to affect in any material degree the arrangements for the committal and retention of pauper patients. No charge has been brought against these arrangements. They are carefully drawn, and they are found efficient in practice. Complaints against this system are extremely rare—are virtually non-existent, save in so far as they emanate from patients actually resident in asylums, and whose lunacy is undoubted. The complaints that are made are made against the system of incarcerating private patients, and the alteration that will be proposed will, in all probability, be in the direction of assimilating the procedure of committing private patients to the procedure already in force in the case of paupers. The main difference between the two modes of procedure is, that in the latter case the order must be signed by a justice of the peace; while, in the case of private patients, it may be signed by a relative or friend of the patient. The necessity of satisfying not only medical men, but also a magistrate, of the lunacy of a patient is a safeguard in which the public, rightly or wrongly, have great confidence. It is one which they are determined to possess; and it is one, therefore, that medical men must make up their minds to accept. Is there any reason why they should object to it? There is none. On the contrary, it will relieve them from a vast load of responsibility, without imposing on them any corresponding disadvantage. To the patient, the additional form to be gone through will not be an unmixed good. In so far as it fences about his liberty with an additional safeguard, it is of course an excellent provision; but in so much as it will act as a retardation to his committal it will to a certain extent militate against his recovery, for no fact in lunacy is better established than that the chances of a patient's recovery are the greater, the earlier he is placed under treatment in an asylum. This statement is, however, much more true of pauper patients, with whom the alternative too often is between treatment in an asylum and no treatment at all, than of private patients who can often be as efficiently treated at home as in an asylum.

It is the second point about to be taken in hand by the new legislation which will most affect alienists. We have already expressed in these columns the opinion that the system of private asylums is indefensible and that its abolition is a matter of time only. Lord Coleridge on Monday night spoke to precisely the same effect, and took the same view as has been taken by this journal. He spoke not of the men, but of the system. He said it was unwise to give any medical man an interest in retarding the recovery of the patient. As we have said before, so again we say now. The most important and the most urgent need of the psychological branch of the profession is to gain the confidence of the public, a confidence which doubtless they deserve, but which not the most sanguine of them can say that they possess; and it is hopeless, it would be unreasonable, to suppose that this confidence will be given to the administrators of private asylums so long as they remain in their present position. So long as a man has an interest in by his patient's retaining his malady, so long the public will mistrust him. There is only one possible solution of the question, and that solution will ultimately be as satisfactory to the profession as to the public; it is to abolish private asylums and substitute for them asylums managed upon the same plan as pauper asylums are now managed.

REVIEWS AND NOTICES OF BOOKS.

HIRSCH'S GEOGRAPHICAL AND HISTORICAL PATHOLOGY.[1]

The Council of the New Sydenham Society has done the profession in England a right good service in having brought the great work of Professor Hirsch, of Berlin, on "Geographical and Historical Pathology" within the reach of English readers; and it has been particularly fortunate in having enlisted the services of Dr. Charles Creighton in the very onerous task of translating so large a volume. A mere glance over the pages suffices to show how true are the words which the author has addressed to the translator—"A great portion of my life is comprised in this book, together with unspeakably wearisome labour." The present instalment is the second edition of the first volume, and deals with the acute infective diseases.

The volume opens with a chapter on *Influenza*—a disease which appears to have been known in the remotest times, and which extends over the whole habitable globe. It always occurs in epidemic form, and even on board ship epidemics of it have been recorded, the crews having been attacked just as suddenly and with as little warning, as when the disease appears on land. Instances are recorded, moreover, in which the epidemic broke out "while the ships were lying in port or cruising off the coast, no trace of the disease having shown itself, either before or after, in the same region ashore." One of these is particularly striking, where the crew of an East Indiaman was affected almost to a man during the voyage from Malacca to Canton. The disease was not present in Malacca when the ship left, but when she reached Canton it was ascertained that at the very time the disease was most prevalent on board ship it was also very prevalent at Canton. Incidents of this character, and other points in the natural history of the disease, such as the sudden occurrence of epidemic outbreaks—attacking the people *en masse*—their equally sudden and complete extinction, after a brief existence of from two to four weeks, and the restriction of the disease to one place, the surrounding country being exempt—"all these points," Dr. Hirsch writes, "are so foreign to the mode of development, and the mode of spreading proper to such maladies as originate beyond doubt through the communication of a morbid poison, that we shall find it hard to discover any reason for counting influenza among the contagious or communicable diseases."

An article on *Dengue* forms the second chapter, in which is given an exhaustive account of the history and literature of the disease. Apparently, the earliest account of it does not date farther back than 1779, when it appears to have been prevalent in Egypt, and to have been known as the "knee-trouble." In the following year a similar disease is recorded as having been met with in different parts of the world—Batavia, the Coromandel Coast, and at Philadelphia. From this period till 1870-73 various epidemics of it have been recorded, and especially during the years just cited, when the disease was very prevalent in India, the East African Coast, Arabia, Java, various parts of China, and other parts of the Eastern hemisphere. It has been observed that, as regards the suddenness of its appearance, and the rapidity with which the greater part of the population of a locality are affected, it presents a striking analogy with what is observed in influenza, and Dr. Hirsch consequently believes, for the same reasons, that dengue, like influenza, is not a contagious disease.

The third chapter, dealing with *Sweating Sickness* and *Miliary Fever*, is, perhaps, the most interesting in the volume, and contains a vast amount of information which the reader will search for in vain elsewhere. The term "sweating sickness" was first given to a disease which broke out among the troops shortly before the battle of Bosworth Field, in August, 1486. After this several outbreaks of the disease were observed, but it was confined entirely to England until, in 1529, it occurred over a large part of the Continent of Europe. Miliary fever appears to bear a very close relationship to it, and it has been observed that outbreaks of both forms of the disease have coincided with outbreaks of cholera, both as regards time and place. This was observed during the first outbreak of cholera in France in 1832, and again in 1849, but outside France the coincidence between the outbreaks of these diseases has not been observed except in Belgium and Luxemburg; or, perhaps, it would be more correct to say that attention has not so specially been drawn to the coincidence. It would appear that the latest records of pestilence show that some such

[1] "Handbook of Geographical and Historical Pathology," by Dr. August Hirsch, Professor of Medicine in the University of Berlin. Vol. I.—*Acute Infective Diseases*. Translated from the Second German Edition, by Charles Creighton, M.D. London: New Sydenham Society, 1883.

relationship exists between these particular diseases in different parts of the globe. An illustrative account is given of such an occurrence in India—at Mhow—in 1839; and Roux refers to such a sickness under the term *choléra cutané ou sudoral*, based on observations made in the Black Sea during the Crimean war. All the ordinary symptoms of cholera were present, except that profuse sweats took the place of the intestinal transudation. Beau, in describing the disease on board the French fleet in the Black Sea, writes:—"In 361 patients there were present all the most marked symptoms of algid cholera: cyanosis, icy coldness of the extremities and of the tongue, cold sweats running over the whole cutaneous surface in such quantity as to soak the linen of the patients in a few minutes, and to macerate their epidermis; absence of pulse at the wrist, extinction of the voice, rapid wasting, typical *facies choleraica*, very painful cramps, and sometimes suppression of urine. The characteristic vomiting and diarrhœa were all that was wanting in many cases; and therein lies one of the marked peculiarities of our epidemic. The copious diaphoresis, which we have dwelt upon, appears to take the place of the usual hyper-secretion from the intestine." The comments which Professor Hirsch makes on this, and other records of the occurrence of this disease, are very striking, and deserve the attention of all who are specially interested in elucidating the ætiology of cholera. One constant phenomenon is observed—a morbidly increased activity of the skin, partly taking the form of an abnormal transudation, partly breaking out in exanthems; and the analogy between the disease-processes, which form the subject of this chapter, and cholera, is so striking, that "on the first appearance of cholera upon European soil, Hufeland drew attention to the resemblance between it and the oldest form of sweating disease known to us—the sweating sickness of the English."

The space at our disposal will not admit of our giving even a brief epitome of the other chapters in the volume, such as those dealing with small-pox, scarlet fever, malarial diseases, relapsing fever, typhus and typhoid fever. The history and characters of these forms of sickness are better and more generally known than are the history and characters of the diseases which form the subjects of the first three chapters. The history and geographical distribution of cholera again is dealt with in an exhaustive manner; indeed, more than one-seventh of this volume is devoted to it; but as latterly this disease has formed the subject of such general discussion, we shall not do more than draw the attention of epidemiologists to the mass of information which will be found collected for them by Dr. Hirsch.

The chapter on *Plague* contains much that will be new to most English readers, and considerable information will be found in it regarding the form of this disease, known as "mahamurree" in some parts of India. The chapter, dealing with yellow fever also, will thoroughly repay perusal, and data will be found in it concerning every known outbreak since 1635. A marked feature in the geographical distribution of this disease is, that it has never been observed as an epidemic in Asia or Australia, nor in Europe and Africa, except along some parts of their western coast; and it has not extended farther north than the south-west coast of the Iberian Peninsula, although isolated cases have occurred in several of the more northerly ports of Europe; but the disease "never got to be generally diffused among the inhabitants." Practically, the area over which it prevails is limited to the shores of the Gulf of Mexico (including the West Indies), part of the Atlantic Coast of the United States, and a part of the West Coast of Africa.

We shall not attempt to offer anything in the shape of criticism on a work of this character. The evidence which every page affords of the labour involved in its preparation, is of itself sufficient to disarm criticism, unless, indeed, it were obvious that the labour had been wholly devoted to collecting material giving a one-sided view of the subjects discussed. No such charge as this can with justice be laid at Dr. Hirsch's door, for, to all appearance, he has gleaned his information from *all* the sources which have come in his way; and by giving the chapter and verse of each reference, he, practically, invites his readers to verify every quotation he makes. The deductions which he makes as to the ætiology of the several diseases must, of course, be looked upon apart. Different readers will put different interpretations on the evidence adduced; and, indeed, for our part, we feel inclined to think that too great a tendency is manifested by the author to refer the origin of diseases to "importation," or some such verbal equivalent, and sometimes on what appear to us to be very slender grounds. This, however, is merely a matter of individual opinion, and each reader can form his own. The great point is, that Dr. Hirsch has brought within our reach information which must have been gathered from many libraries, and which, indeed, could only be gathered by a proficient linguist, and a man of very exceptional erudition.

A word of praise to the translator and our pleasant task is done. Dr. Creighton has accomplished his part of the work with marked ability. A higher compliment could not be paid to a translator than to state that the work, from beginning to end, reads more like an original work than a translation, and Dr. Hirsch himself has given it his *imprimatur* in having read over the proof sheets. English readers are also indebted to Dr. Creighton for having compiled an excellent index to the volume.

A Guide to the Study of Ear Disease; by P. M'Bride, M.D. Edinburgh: W. and A. K. Johnston.—This little book is really what it professes to be, a guide to the study of diseases of the ear, "to meet the requirements of the student, and of the general practitioner who has not had the advantage of studying otology under the guidance of a teacher." Neither need go farther for what he requires on the subject, for in this work he will find it all, put briefly, clearly, and pleasantly. Each disease is described as shortly as is consistent with clearness, and while the author does not omit to mention the opinions and experience of others, he chiefly relies on his own. Hence his descriptions are so vivid and true, that (to take for example the diseases of the middle ear), after the beginner has mastered the difficulty of seeing the membrana tympani properly, he ought quickly to recognise, and

attribute to their right cause, the various appearances it presents in disease. We venture to think the author would have done better, if he had described acute purulent and non-purulent catarrh of the middle ear separately. Although we concur in his statements that "no surgeon would take upon himself to diagnose the exact form of exudation in a severe case of so-called acute catarrh, and that in these cases, as described in text-books, the secretion is as often purulent as mucous," still, as the two forms of inflammation differ in many respects in their treatment, it certainly seems to us that it would have been more convenient for practical purposes to have treated them apart. In acute non-purulent catarrh, the surgeon has practically to guard against the deafness which follows; in the purulent form, on the other hand, he has frequently to deal with complications arising when matter is found in the tympanic cavity. The author hardly makes this clear enough, as, by describing both forms of acute inflammation together, and treating of the complications arising during purulent catarrh, under the head of chronic suppuration, the unwary might be led to suppose that these complications only arise during the course of chronic suppuration. While on this subject, we would ask the readers of the book, not to take quite so desponding a view as Dr. M'Bride does, when he states that "in these cases of chronic suppuration, the discharge sometimes defies treatment." We firmly believe that every case of middle-ear suppuration can be cured by patient treatment, unless there be present tuberculous infiltration of the mucous membrane, or disease of the underlying bone.

Having found fault with the author on these minor points, we have nothing but praise for the rest of the book. On the subject of injection into the middle ear, his views are so sound, that we cannot do better than quote his own words. "It is claimed that such injections tend to cause absorption of fibrous tissue, by establishing a slight reaction; but it is somewhat difficult to credit this, for would the most sanguine believer in the deobstruent action of the iodide of potassium, expect a result from injecting a five, or even ten-grain (to the ounce) solution into the urethra, having in its course an organic stricture? If not, can we expect a more satisfactory result in the case of adventitious fibrous tissue within the tympanum?" All that is at present known about diseases of the internal ear, is clearly stated in a few pages, and will well repay perusal. Finally, the chapters on "tinnitus aurium," and "the diseases which affect the ear," are full of valuable information to others besides aural surgeons. The coloured drawings of the membrana tympani, at the end of the book, are works of art, and wonderfully true to life.

The Propagation of Tuberculosis; by Lydtin, Fleming and Hertsen. London: Baillière, Tindall, and Cox.—This little work is a translation of a report prepared for discussion at the International Veterinary Congress, held at Brussels in 1883, on the influence of heredity and contagion on the propagation of tuberculosis, and a brief account of the debate which took place on it. The recent delivery by Dr. Andrew of the Lumleian lectures on this subject having drawn attention thereto, it will probably be of interest to our readers to learn the principal conclusions at which the reporters arrived. As to heredity, they conclude that the disease is transmitted by the male as well as the female parent, and that tuberculous parents may transmit to their offspring a predisposition to tuberculosis. As regards the contagiousness of phthisis, they conclude that the disease in man and animals is transmissible by heredity, and also is contagious, and that it may be transmitted from animals to man by consumption of the milk of phthisical animals. As to the measures to be taken to prevent the injurious effects which might arise from the use of the flesh and milk of tuberculous cattle, they recommend amongst other things, that the meat should only be used for food when the disease is in a very early stage, and the lymphatic glands are unaffected, that meat showing a more advanced state of disease should be rendered unsaleable by being sprinkled with petroleum, and buried under supervision; the extraction of the tallow by boiling, and the sale of the skin might be permitted. The inspection of every animal affected with tuberculosis should be made by a veterinary surgeon, who can alone judge whether the flesh may be consumed, and lastly, the milk of animals affected with, or suspected of tuberculosis should not be used for the food of man, nor yet of certain animals, and its sale should be rigorously prohibited.

Bacteria and the Germ Theory of Disease; by Dr. H. Gradle, Professor of Physiology, Chicago Medical College. Chicago: D. T. Keemer. London: Trübner & Co.—The eight lectures delivered by Dr. Gradle in the Medical College to which he is attached, and now issued in book-form, can scarcely be termed an addition to the already formidable list of bacterial literature, seeing that they are altogether of the nature of mosaic work, being a compilation from the works of others with just so much of the personal element as is needed to give the fragments the requisite cohesion. As a course of lectures, in which—the time allowed being in inverse ratio to the extent of subject to be treated of—the object seems to have been to stimulate the interest of the audience by an analysis of contemporary opinion, they doubtless answered their purpose well; but the reason of their publication for general circulation is not apparent. They might, indeed, serve as a "popular" hand-book on a subject into whose working depths the general reader is not likely to be tempted; but they are too sketchy to be in any degree satisfying, and hardly even suggestive, to the real student. With respect to the author's own opinions, we gather that he more than suspects normal digestion to be dependent on bacterial agency; while *à propos* of the germ theory he writes with no uncertainty:—"The surgeon of yore did his best in the performance of the necessary operation, but the results following his wounds he could not control. The surgeon of to-day, however, is responsible for the course of the wound he inflicts. Any untoward accident, starting from the wound, is due to his want of care." The book is well printed, and furnished with a sufficiently copious index.

Human Anatomy; by C. J. Witkowski, M.D. Translated by Arthur Trehern Norton, St. Mary's Hospital. London: Baillière, Tindall, and Cox.—Part VIII. of this series consists of a movable atlas showing the bones and ligaments of the human body, accompanied by a descriptive pamphlet of 34 pages. We confess that the atlas entirely surpasses our powers of description, and there is no doubt that the author has expended upon it an amount of ingenuity that was worthy a better cause. The pamphlet consists for the most part of a series of anatomical ejaculations, interspersed with quaint remarks, the value and relevance of which are not quite apparent; *vide* page 22, where we are told that "Anna Boleyn, wife of Henry VIII., had six fingers on the right hand, and a supplementary breast." We cannot tell for what class of people this book has been written, unless, indeed, it is intended for the use of those who are engaged in the delicate task of teaching *Board-School Anatomy.* The plan of the work is so contrary to that upon which anatomy is usually taught in this country, and causes it to assume so grotesque a form, that we may be pardoned if we ask, whether the *author,* or the *translator,* possesses any sense of the ridiculous.

Ambulance Handbook for Volunteers and Others; by J. and A. Raye, L.K. and Q.C.P.I.; L.R.C.S.I.—This little work is dedicated to the members of the Volunteer Services at home and abroad, and consists of the text of a course of lectures which the author had intended to deliver to an ambulance class formed of the East Indian Railway Rifles, during the Tel-el-Kebir Egyptian campaign. It is just suited for its purpose, and may well serve as a text-book for the instruction, by surgeons of volunteers, of the bearer companies and ambulance workers under their charge. The book does not follow precisely the lines laid down by the St. John's Ambulance Association, and is, perhaps, on that account more suitable as a military ambulance handbook. The practical part of the book is the best. The anatomical and physiological sections are open to the objection, so often

alleged against all ambulance text-books, of teaching too much or too little—too much if the whole gist of such important subjects is to be disposed of in one or two lectures; too little if any real grasp of their mysteries is to be assumed as a result of so superficial a course of treatment. The sections relating to stretcher-drill, bandaging, and the use of ordinary instruments will be found useful and clear. The illustrations are numerous, well drawn, and instructive.

ABSTRACTS AND EXTRACTS.

ON THE ÆTIOLOGY OF TYPHOID FEVER.[1]

By Dr. GAFFKY.

Thirteen years have already elapsed since the first successful investigations were published of the part played in the production or spread of typhoid fever by micro-organisms. Professor von Recklinghausen demonstrated, in the year 1871, certain colonies of micrococci in suppurating kidneys in a case of typhoid, and thus opened the way for further enquiries, which have been actively prosecuted by many pathologists and histologists of note. Whilst all these investigations, however, have been followed by the discovery of micro-organisms, there has been wanting that absolute unanimity as to the identity of the "bacillus of typhoid," which is essential to its general acceptance.

In 1880 a definite form was described and identified by Eberth, especially in the spleen and lymph glands in fatal cases of typhoid; it was always found most abundantly in the most acute cases. Even in these, however, its appearance was not constant; it was, in fact, only observed in 18 out of 40 cases. No similar organisms were found in any other intestinal affections.

In some respects this bacillus corresponded to that observed by Klebs in 1878 and 1880, in the mesenteric glands and other viscera, and also in the larynx, in cases of typhoid ulceration of that organ. In form, however, these bacilli differed from those described by Eberth, being longer and more thread-like, although in their distribution they would appear to have closely attended the anatomical changes secondary to the typhoid process, wherever occurring.

Koch's investigations, published a year later, tended to show that short bacilli, corresponding to those described by Eberth, were present in a very large number of cases in the parts of the mucous membrane lying beneath the necrosed sloughs, and he could only find the thread-like organisms in the necrosed tissue itself. These he regarded as secondary, the bacillus observed by Eberth being the primary organism. An element of uncertainty, however, is present here also, owing to the different affinity which Koch's and Eberth's bacillus respectively appear to have had for colouring matters.

Corroborative observations have from time to time been recorded by Meyer, in Berlin, and by Coats and G. F. Crooke, in England, who have all found a short bacillus in the inflamed tissues in typhoid fever, which is in all probability identical with that discovered by Eberth and Koch.

Dr. Gaffky's investigations were made in 28 fatal cases of typhoid fever, and he only failed to find the bacillus in the mesenteric glands, spleen, liver, or kidneys, in two cases. In one of these, however, there were numerous bacilli found in the mucous membrane of the intestine; whilst, in the second, the typhoid process had fairly ceased, death taking place from accidental rupture and peritonitis.

The far greater success that attended his researches, than those of previous observers, he attributes to the wider range of his investigations. In the organs, the distribution of the colonies of bacilli was very irregular, and hence could only be satisfactorily determined by a very large number of observations. He found that the bacillus identified by Eberth and Koch was most frequently present in the lymphatic glands or in the recently affected tissues. After the disease had progressed, the work became much more difficult from the presence of numerous other bacterial forms, and amongst them the thread-like bacillus described by Klebs. Dr. Gaffky gives as the dimensions of these bacilli, which he apparently regards as undoubtedly specific organisms, one-third the length of an ordinary red blood corpuscle, the width being about one-third of the length; the ends were rounded off, as in the case of the bacilli observed by Eberth; a few spores were visible in some of them. With regard to their distribution in the organs, he found them in the greatest profusion in the intestinal mucous membrane in acute cases. In the mesenteric glands they were less frequently present than in the spleen. In the liver and kidneys also, they were only occasionally discovered. Of the manner in which the bacillus finds its way through the mucous membrane and so to the organs, there is at present no definite evidence forthcoming. The colouring matter employed was methyl blue, but the bacilli were found to be susceptible of staining by methyl violet, gentian violet, Bismarck brown, fuchsin, or even hæmatoxylin. The tissues required, however, to be exposed to the stain for a long time, and maintained at a gentle heat. Abundant micrococci were brought into view by any of these stains, but they were easily distinguishable from the special bacillus, and were generally confined to the mesenteric glands.

The cultivation of the bacillus in other than the tissues of the body has not been uniformly successful hitherto, owing, as Dr. Gaffky believes, to want of method, and especially to the practice which was at first adopted of employing fluids instead of peptone gelatine as the cultivating medium. In his own cultivation experiments small portions of blood were removed from organs known to contain the bacilli, and, with every possible precaution to prevent contamination, placed in peptone gelatine. The resulting bacilli corresponded exactly in form and size with the original stock. A new feature, however, was present in the shape of independent movement, the smaller bacilli moving hither and thither with varying rapidity, and the longer thread-like forms showing a distinct wavy movement. The bacilli appeared to reach their most perfect development about the fourth day. Unlike some other forms of moving bacilli, they produced no liquefaction of the gelatine.

Inoculated upon the surface of a freshly boiled potato the rapidity of development was found to be extreme; indeed, this property may be regarded as a characteristic of the typhoid bacillus. When transferred to some other cultivation fluids, the number and vigour of the newly-formed bacilli was at once diminished, whilst in the potato they again recovered their number and dimensions. The formation of spores was found to take place in from three to four days at a temperature of 30° to 42° C., but more slowly at lower ranges, and not at all below 20° C. The results of experiments, with a view to induce typhoid fever in the lower animals, have not been as yet by any means conclusive. Dr. Gaffky, after a very large number of experiments on a variety of animals, comes to the conclusion that all the attempts hitherto made have been unsuccessful. Reviewing the results of his own and other observers' discoveries, he maintains that we are now justified in regarding the bacillus as the true cause of the typhoid process. Without definitely pronouncing an opinion upon the point, he argues, from the analogy of other infectious diseases, that we may, for the present at least, regard this bacillus as an absolutely specific pathogenic organism. The history of its behaviour outside the human body, and whether its spores lie dormant or are capable of development in other media, must remain a subject for conjecture only.

With respect to the exact mode of infection, Dr. Gaffky is led to a definite expression of his opinion, that whether the spores or bacilli be swallowed in drinking water or in other forms of food, or whether they be inhaled, in every case they pass the stomach unaffected, and only become developed and actively reproductive in those parts of the intestine in which are situated the solitary follicles and Peyer's patches.

[1] "Reports of the Imperial Board of Health in Germany." Edited by Dr. Struck. Vol. ii., 1884.

PATHOLOGY.

THE HISTOGENESIS OF TUBERCLES. — According to Professor Baumgarten, of Königsberg, the development of specific tubercles can be studied most easily and accurately in the changes which take place in the iris of albino rabbits after tubercular matter has been introduced into the anterior chamber of the eye. The first stage is the migration of the bacilli from the particles introduced into the iris tissue which at this period is perfectly healthy. The free bacilli themselves enter the iris, they are not conveyed into it by wandering cells, and when there they multiply and spread in the tissues. On the tenth or eleventh day after inoculation the iris still looks healthy, although bacilli can be found all over it, both in the intercellular substance and in the cells. In those spots where the bacilli begin to group themselves into nests, changes take place which always lead to the production of typical tubercles. Whilst in their normal condition the fixed cells of the stroma of the iris of albino rabbits have the form of thin plates, which appear if seen edgeways as free oval nuclei attached to the wall of the particular intercellular space under observation; under the influence of the bacilli these cells swell up to large cubic or polygonal masses of protoplasm (the epithelioid cells of tubercles of authors). The fibrillar intercellular substance becomes compressed and rarified by the pressure of these cells, and is more and more reduced to that delicate network known as the reticulum of the tubercle. Whether a hyperplasia and multiplication of the fixed connective tissue cells take place as well as this hypertrophy of the individual cells is not certain, but if it occur it must be in so slight a degree as to take only a subordinate place in the formation of tubercles. The giant cells of tubercles must at present be considered as rising from a fusion of several of these epithelioid cells and not from a multiplication of the nuclei of a single cell. The wandering leucocytes take no part in the formation of these epithelioid tubercles; a tubercle having this structure can be perfectly developed without the aid of a single leucocyte, and the few which wander into it in the course of its development perish—they shrink to irregular masses and ultimately break up into small granules. The number of bacilli in the nest which gives rise to one of these epithelioid tubercles in the iris of an albino rabbit is never very great even when the tubercle is completely developed, but the bacilli increase in number from day to day, and after some time an attack of iritis sets in, generally suddenly; there is a rapid dilatation of the blood vessels and numerous leucocytes migrate into the stroma towards the tubercles. If the tubercles are examined at this stage, we find they present the typical structure of a Wagner-Schüppel tubercle, a sharply contoured cellular mass containing no blood-vessels, the centre composed of epithelioid cells and generally one or several giant cells, the periphery for a zone more or less wide, composed of lymphoid elements, the whole penetrated by a delicate fibrillar network. The bacilli in the nest become more and more numerous, and this immigration of leucocytes into the tubercle goes on till the whole mass has the appearance of a small-celled lymphoid structure. The only subsequent changes which can possibly take place in a tubercle after it has reached this lymphoid stage, are those of degeneration and destruction. No lymph cell tubercle has ever been seen to change into an epithelioid or a giant celled tubercle in the iris of a rabbit. Other studies of the development of tubercles in other parts of the body and other tissues appear to show that tubercles always grow in a similar way, the different appearances depending on the rate at which the tubercles develop and at which the different stages follow one another. The rate of growth varies with the number and vigour of the bacilli; the more rapid the increase in the number of these, the more quickly does the primary epithelioid tubercle change into a lymphoid tubercle, and in very malignant cases the bacilli may multiply so rapidly that the epithelioid stage has such a short duration that the tubercles appear to be developed at once in the lymphoid stage, and consequently break down at a correspondingly rapid rate. On the other hand, the tubercles may retain their epithelioid and giant celled structure for a very long time when there are but few bacilli. From these observations we can understand how the pure lymphoid tubercles are the most malignant, and are only found in the worst cases, the mixed Wagner-Schüppel tubercles in more chronic ones and the almost purely epithelioid forms in cases of tuberculosis of lymph glands, lupus, tubercular disease of joints, &c.—*Centralblatt für Klinische Medicin* (No. 15, 1884).

THE BACILLUS TUBERCULOSIS.—The following are the results which Prof. Coze arrives at from an experimental investigation carried on in the laboratory of the Faculty of Medicine at Nancy. (1) The bacillus is recognisable by its form and dimensions, and especially by certain characteristics of colouring, which belong exclusively to it, and distinctly separate it from other analogous elements. (2) It is constantly met with in the expectoration of phthisical persons, and in organs the subject of phthisis, whatever stage of evolution this may be in. It is never found in the healthy portions of these organs, nor in other pathological conditions than that of tuberculosis. It presents the same characteristics in animals experimentally infected, so that the relation of cause and effect would seem to exist between the bacillus and the disease. (3) The existence of bacilli in the expectoration, in the organic liquids, or in portions of excised tissue enables us to establish the diagnosis of pulmonary tuberculosis with certainty. This examination is of great importance in doubtful cases, and in commencing tuberculosis, prior to the appearance of physical signs. (4) Up to the present time antiseptic medicinal agents have not, in an experimental point of view, furnished any positive results. Still, all reserves being observed, creosote appears to us justified as a means of treating phthisis.—*Bullétin de Thérapeutique*, March 30th.

NEW MODE OF STAINING THE BACILLUS TUBERCULOSIS. —In the *Philadelphia Medical Times* for January 26th, Dr. Hartzell advises the following method:—A small quantity of the sputum is spread thinly and evenly on a glass slide; when dried it is passed several times slowly through the flame of a spirit-lamp or Bunsen's burner. One or two drops of Gradle's fuchsin solution (Ac. Carbolic ♏ xv., Aq. ʒss., dissolve and add of saturated alcoholic solution of fuchsin ʒss.) are placed on the sputum, and allowed to remain for from three to five minutes. The slide is next thoroughly washed with distilled water to remove the excess of fuchsin, and the stained sputum is then decolourised by a saturated solution of oxalic acid. After being again thoroughly washed in distilled water, it is allowed to dry, and is then ready for mounting in glycerine or balsam. Under a power of 500 or 600 diameters the bacilli appear as brilliant red rods. While nitric acid—the decolourising agent usually employed—is disagreeable to handle on account of its corrosive and staining properties, it is also apt, unless great care be exercised, to remove the colour from the bacilli. Oxalic acid, however, appears to leave the dye in them untouched. In the *Boston Medical and Surgical Journal*, for February 28th, Dr. H. C. Ernest states that by this method *all* the micro-organisms which may be present are stained in equal proportion, and that it cannot, consequently, be relied on for the different diagnosis of *Bacillus Tuberculosis*.

GANGRENE OF EXTREMITIES FOLLOWING FORCIBLE EXTENSION OF JOINTS AND SUBCUTANEOUS RUPTURE OF ARTERIAL TRUNKS.—A valuable contribution to the literature of this subject is contained in a paper by Dr. F. Salzer, of Vienna, in the *Wiener Medicinische Wochenschrift*, Nos. 8 and 9, 1884. The occurrence of gangrene after forcible extension of joints is rare, and amongst a very large number of recorded cases, only four are to be found in which it was observed. Although pressure upon or injury to a main artery was diagnosed in these cases, the facts were never demonstrated by dissection. In Dr. F. Salzer's paper particulars are given of five cases of forced extension of the knee joint, in all of which gangrene of the leg followed in from two to six days. Amputation having

become necessary in each case, a thorough examination of the joints was possible and resulted in the discovery of rupture of the popliteal artery to a greater or less extent. In some cases the vein also was found to have been torn across. In all the cases there was more or less inflammatory adhesion around or within the joint, and it is probably to this fact that the want of collateral circulation must be attributed, coupled with the effects of pressure exercised by the hæmatoma formed about the seat of injury. No mention is made of the condition of the nerve trunks, from which it may be fairly assumed that they were found intact. A case of subcutaneous rupture of the femoral artery, followed by gangrene of the leg, is published by Dr. Weitz, of Pyrmont, in the *Berliner Klinische Wochenschrift*, No. 7, 1884, in which also the great effusion of blood into the soft tissues of the thigh appears to have hindered the establishment of collateral circulation. A further series of two cases of gangrene from a similar cause, by Dr. C. Jüngst (*Berliner Klinische Wochenschrift*, No. 15, 1884), is remarkable from the nature of the injury to the vessel. In the first case, with comminuted fracture of radius and ulna, a rupture was discovered in the intima of the brachial artery, close to its bifurcation. The middle and outer coats were somewhat stained by hæmorrhage into them, but no blood had found its way through them. A thrombus was formed above this point exactly in the same manner as after ligature of a vessel. In the second case, a similar condition was found in the popliteal artery, after a comminuted fracture of the upper part of the tibia and fibula. The absence of collateral circulation was very marked in both cases, the only explanation for which was the extent of the local injury. The frequent occurrence of disturbed circulation, and even of local gangrene after injuries to the forearm, must not be overlooked in considering these cases. Frequently such conditions are observed and attributed, without further question, to the influence of splints or bandages. A slight rupture of the intima of the arterial trunks may, as these cases prove, be produced as part of the first injury to the limb, and it may not improbably give rise, in some cases, to only temporary disturbance of circulation.

The Micrococci of Epidemic Cerebro-Spinal Meningitis.—Micrococci have already been found by Klebs, and again by Eberth, in cases of meningitis, complicating pneumonia, and in traumatic meningitis, whilst Leyden has described numerous micrococci, generally united in pairs, but often in chains of three, as occurring in a case of cerebro-spinal meningitis. Marchiafava and Celli have been able to follow up this line of research by utilising the cases of an epidemic of cerebro-spinal meningitis, which were brought to the Spital S. Spirito. In two of these cases, they were enabled to make the autopsies, and examine the exudation and the pia mater a few hours after death. In all their preparations made from the exudations, oval cocci were found either occurring singly or united in pairs. These were either free in the intercellular fluid, or in the protoplasm of the pus cells, they were only rarely found in the endothelial cells, some of the pus cells contained even six or seven diplococci. They did not find any chains of three. These cocci were relatively more numerous where the amount of exudation was small. From both these cases similar preparations were made from the blood taken from the right side of the heart, and from the pulp of the spleen, but no micrococci were found in any of these. On examining the pia mater, they found similar micro-organisms, lying in groups in the intercellular fluid.—*Gazz. degli Ospitali* 1884, No. 8.

Traumatic Malignancy in the Domesticated Animals.—Dr. W. H. Birchmore's investigations published in the *New York Medical Journal*, December 15th, 1883, were, he states, originally undertaken in order to obtain material for illustrating the inflammatory origin of tumours. "In the dumb animals only can we find very young growths and remove them at our will, or remove all the neighbouring tissue and appreciate its relations." Now, when the relations between the diseases of man and his dependent cousins are being realised, we find indications that, "besides enteric fever, pneumonitis, and tuberculosis, another vice of nutrition is shared by us all." The author gives about a dozen cases, including that of a chicken, whose humerus had been broken, some months later the un-united fracture was surrounded by a large ovoid tumour which proved to be a large round-celled sarcoma; encephaloid disease of the tarso-metatarsal bone in an old hen, following frost-bite; a capon, the site of whose right testicle was occupied by a tumour as large as an egg—an adenoid sarcoma; osteo-sarcoma of the jaw of a setter following gunshot injury; a large, mixed spindle and round-celled sarcoma from the lower lip of a mule, caused by irritation of the bit; a connective tissue tumour with nests of pseudo-epithelial cells, developed from an ulcerated papilloma behind a horse's ear, irritated by the rubbing of the bridle; a nodulated mammary cancer of a cow's udder following injury. Epithelial tumours at the point of the shoulders in ill-used horses are not very rare; villous tumours of the intestines are frequently found in hogs. "There is need of much more knowledge than we have in relation to these troubles—of their ætiology—and the only way of obtaining it is by the study, not of books, but of the things themselves."

Tuberculosis of the Testis.—A labourer, aged 38, had hydrocele, cause not determined; he denied syphilis. Volkmann's operation was successfully performed; five weeks later the patient returned with a history of rigors, insomnia, and loss of flesh. The testicle was then removed, and was found to show central tuberculosis, the hard tubercular mass not having yet had time to break down. A second patient, aged 31, had suffered from acute traumatic orchitis and epididymitis. Six weeks after the injury, the testicle was painful, swollen, and hard; the swelling extending some distance up the cord. Chilliness and sweating were also complained of. The testicle, when removed, exhibited incipient breaking down of the tuberculous deposit centrally; while the tunica vaginalis, instead of being smooth and firm, closely resembled the synovial membrane in cases of tuberculosis of the joints. In a third case, there had been chills, emaciation, loss of appetite, and swelling and pain of the testicle; the organ was found to consist almost entirely of broken-down tissue, and the tunica vaginalis had become obliterated. Dr. Gerster, who exhibited the specimens before the New York Pathological Society, remarked that in such cases the diagnosis could now be made much earlier than was formerly done, thus leading to proper treatment by extirpation; whereas it used to be the practice to let the condition remain until a fistulous opening formed in the scrotum, producing the so-called hernia testis. In the patients above mentioned, no physical signs of tuberculosis were detected in any other organs of the body; the general symptoms—rigors, sweats, &c., disappeared on removal of the diseased testicles.—*New York Medical Journal*, February 23rd.

Dentigerous Cyst of the Lower Jaw.—A remarkable instance of this affection is described in the *Chicago Medical Journal*, by Dr. J. S. Marshall. A girl, aged 16, came with a swelling over the first lower molar on the left side; the wisdom tooth on that side had not appeared, and the second molar was quite loose. Puncture showed that the swelling contained clear serum. Two months later, the swelling having meanwhile rapidly increased in size, its removal was agreed to, and accordingly it was laid freely open by an incision in the mouth. It contained about four ounces of thick dark yellow serum, and some pus, the undeveloped wisdom tooth was found at the base of the coronoid process, and removed. The condyloid process, and posterior part of the ramus, were separated from the coronoid process and the anterior portion, and detached from the surrounding tissues, the periosteum having been separated from this portion of the bone: this was removed through the cyst and incision in the mouth. The cyst was found to have extended so far upwards and backwards, as to nearly sever the condyle from the coronoid process, and body of the jaw; the condyle was separated from its fibro-cartilage, and showed evidences of necrosis. Finally, the lateral walls of the cyst were crushed. The patient made

an uninterrupted recovery, and two and a half years after, there was only a very slight flattening in the region of the angle of the jaw visible, and the movements of the joint were perfect.—*Journal of the British Dental Association*, March, 1884.

HYPERTROPHIED HEARTS.—Dr. C. W. Dulles showed to the Pathological Society of Philadelphia, on Dec. 13, 1883, the heart of a rheumatic patient, æt. 18. When all the adherent parts had been removed, the heart weighed 48 ounces: emptied of bloodclot and well washed, it weighed 40 ounces: the pericardium was universally adherent, but all the valves and bloodvessels were healthy, although the mitral orifice was enormous, measuring two and a half inches in diameter; the kidneys were in a condition of "cyanotic hypertrophy." At recent meetings of the Pathological Society of New York, similar specimens were exhibited, weighing respectively 55 and 57 ounces.—*New York Medical Journal*, December 29th, 1883.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON,

TUESDAY, MAY 6TH, 1884.

J. WHITAKER HULKE, F.R.S., President, in the Chair.

Report of Morbid Growths Committee.

MR. BOWLBY read the report on Dr. Norman Moore's case of enlarged ovaries in connection with cirrhosis of the liver. There was a general increase in all the tissues of the ovary. The cortex was abnormally dense, owing to increase of fibrous tissue. The greater part of the rest of the ovaries was composed of cells similar in shape and size to the nuclei of involuntary muscular fibres. They were embedded in a homogeneous matrix. The enlargement was thought to be of the nature of hypertrophy rather than of chronic inflammation or cirrhosis.

Three Cases of Tumour of the Lung.

DR. SAMUEL WEST exhibited these specimens and gave the following account of the cases:—(1.) A youth, aged 18, who had had his thigh amputated for osteo-sarcoma some months previously, came under observation suffering from pain in the chest, dyspnœa and palpitation, about 50 ounces of blood-stained fluid were removed from the left pleura by aspiration. At the necropsy several massive tumours were found in each lung, soft and spongy on the surface, but very hard within. They were of the same nature, viz.: osteo-sarcoma, as the original tumour of the leg. There were no secondary growths elsewhere, and the stump was healthy. (2.) A man, aged 39, had been ill for a month, when he came under observation with what appeared to have been pneumonia. Some effusion was found at the right base, but the removal of this did not bring much relief. On *post-mortem* examination, at the root of the right lung, surrounding the bronchi and vessels and compressing them, was found a mass of new growth extending into the lung substance along the course of the large bronchi. Microscopically, the growth was found to be scirrhus. (3.) A man, aged 62, whose physical signs exactly resembled those of the last patient, the *post-mortem* appearances were similar, except that the tumour was of small extent, sending processes only a very little way into the lung substance. As in the other case there were œdema and inflammatory changes, which had gone on to the formation of a cavity. The tumour in this case was also scirrhus. These two last cases were instances of what were commonly called primary tumours of the lung. But this was a mistake, for they originated in the lymphatic tissue at the root of the lung, and only affected the lung by direct extension. They were distinct both from tumours of the lung substance, and from mediastinal tumours. The former were very rare as primary, but common as secondary growths. The first case was in his opinion one of secondary growth. The points in the two last cases were, that the disease was nearly always unilateral, starting from the root and radiating inwards along the branches of the bronchi. All the structures at the root were compressed by it, and the result was that there was collapse and œdema of the lung, with inflammatory changes, often followed by breaking down of the lung substance, and the formation of cavities by a species of necrotic degeneration. These cavities were not, as was sometimes said, the result of the softening of cancerous nodules, and they contained only the products of lung tissue. The diagnosis, both from ordinary phthisis, and from mediastinal tumour, was often very difficult.

The PRESIDENT said the cases were of the greatest interest. As to the ones originating in lymph tissues at root of the lung he thought they would in penetrating the lung go against the lymph path according to Dr. West's hypothesis, which seemed improbable.

Dr. NORMAN MOORE thought they might be endotheliomates, taking origin in the pleura or pericardium and spreading thence to the lung. As to the first specimen, it would be worth while to collect all the cases of secondary growth in the lungs after disease of some or other of the bones.

Dr. EWART had several times seen secondary growth after cancer of the breast, and had seen the growth spread along the lymph path in the way described by Dr. West, he had seen two cases of osteo-sarcoma of lung secondary to tumour in the bones. He mentioned the case of a girl, aged 10, ill with dyspnœa; after a time consolidation was detected; a mediastinal tumour of rather rapid growth had made its way into the auricle, this led to the conveyance of growth into the lung substance, so that the lung was affected both in this way and by direct extension.

Mr. BOWLBY said, referring to Dr. West's first case, the original tumour was a central one, an ordinary fibro-sarcoma, not very malignant as was supposed. The others could not have originated in epithelium; one of them closely resembled the endotheliomata.

Dr. WEST said that he was willing to admit that his cases might possibly have been instances of endotheliomata. As to the growth not being able to advance against the lymph stream, he hoped to bring forward shortly a case of cancer of the gall bladder, in which it was evident that such a mode of spreading had taken place.

A Case of Supposed Actino-mycosis.

Mr. TREVES showed a drawing of a man, aged 46, a villager. Two years ago a swelling had formed over the left lower jaw, it grew slowly, it was incised a year ago, and never healed; an ulcer forming, a fresh lump appeared in the neck and broke down. After this other nodules appeared on his chest, all in the line of gravity. These fungating masses started as small nodules, which gradually enlarged, suppurated, and then formed the ulcers. The symptoms were typical of the disease (actino-mycosis) as described by Ponfick. The man had nothing to do with animals, and no fungus could be found. All the masses were removed and scraped away; the disease seemed to have no connection with bone. The wounds healed well. Afterwards he removed some growths from the axilla, followed by hæmorrhage; eventually the man died a month later. At the *post-mortem* there were secondary deposits in the lung, liver, kidney, and spleen. Mr. Cheyne could find no micro-organisms, and inoculation had failed. Microscopically some of the deposits had an alveolar appearance,

others showed clusters of round cells. It was to be noted that each nodule suppurated early, and that the disease was very protracted. He suggested it should be referred to the Morbid Growths Committee.

The PRESIDENT recollected the patient, and had felt the difficulty of diagnosis; he had rather inclined to a diagnosis of farcy.

Mr. WATSON CHEYNE detailed the steps he had taken to determine the presence of an actino-myces, but had failed, both in cultivation and inoculation experiment, to detect any organism, therefore tubercle and farcy were both excluded as well.

Mr. TREVES said, in reply, that the question of farcy had been raised, but the case had lasted too long for that disorder.

Cast from the Trachea.

Dr. BURNEY YEO said that a gentleman who had had symptoms of thoracic aneurysm, had for three days suffered with violent coughing, and brought up the specimen exhibited, the sputa about that time being a little blood-stained. It was one and a half inch long, three quarters inch across and bifurcated, it was hard and tough. He would not express any opinion as to its nature. It was referred to the Morbid Growths Committee.

Lardaceous (?) Syphilitic Disease of Supra-renal Capsule.

Dr. TURNER said the specimen was taken from a man, aged 34. The capsule was greatly enlarged, it was not lobulated, there were several natural fissures. It was an inch thick. The centre was traversed by numerous wide vascular channels, corresponding with the medullary part; this shewed a large number of spindle-shaped nuclei. The walls of the vessels were much thickened. It was an instance of syphilitic growth invading the supra-renal body. After referring to the works of Virchow and Dr. Greenhow on this subject, he pointed out that there were muscular fibres in the capsule, and that there might be some association with those in the trabeculæ in regard to the function of these organs.

Multiple Exostoses.

Mr. SYDNEY JONES exhibited a case containing nearly all the long bones in the body, presenting numerous exostoses, one femur showing an especially large one. He said they were taken from a man, aged 55; they were all covered with cartilage, and mostly in the shafts of the long bones, and not confined to the neighbourhood of the joints.

Fibro-myoma of the Stomach.

Dr. PERCY KIDD showed this specimen. The tumour had given rise to no symptoms during life; it was found in connection with the cardiac orifice of the stomach in a patient who died of abscess of the liver. The growth which was tough, whitish, and of a somewhat uniform shape, seemed to spring from the submucous tissue of the stomach, and had no obvious connection with the muscular coat. It partially encircled the œsophageal opening without causing any stenosis. The stomach elsewhere was healthy. The microscopical characters of the tumour were those of a fibro-myoma, the prevailing structure being myomatous. Such tumours were decidedly rare, they were usually small and commonly situated towards the cardiac end of the stomach. The present specimen exceeded in size the largest tumour of the same nature mentioned by Virchow in his "Krankhafte Geschwülste."

Dr. NORMAN MOORE mentioned the case of a little girl, aged 11, suffering from mitral disease, and very anæmic. There was a growth at the cardiac orifice of the stomach, which had ulcerated, and caused peritonitis.

Dr MONEY mentioned a case in a child, aged 6, in which there was a growth in the stomach, but it had not yet been examined.

Tumour of Scalp.

Mr. LOCKWOOD said that the tumour which he had removed from the head of a child had been noticed since an early period of life. There was a large mass behind the ear which proved to consist of hyaline cartilage. The growth itself consisted of round and spindle cells. He knew of no recorded case similar to it.

Mr. BOWLBY said the ingrowth composed of mucous cells had resembled epithelioma in the mode of spreading. He did not think there were any cartilage cells.

It was referred to the Morbid Growths Committee.

Lymphoma of the Intestine.

Dr. SILCOCK said the specimen was taken from the body of a child aged four, who had symptoms of intestinal obstruction. The lower part of the jejunum and ileum were very white, and their walls infiltrated with a new growth travelling in their mucous and sub-mucous coats. It was a lymphoma, with lymphoid cells set in a retiform stroma.

Cystic Tumour of the Spleen.

Mr. KNOWSLEY THORNTON said that it was noteworthy that the walls were so thin that cholesterine scales could be seen floating in the cyst through the abdominal walls. The cyst was multilocular. The patient had had no bad symptoms, and was now convalescent.

Card Specimens.

Dr. CARRINGTON. Malposition of kidney, arrested development of left side of uterus, absence of left ovary and Fallopian tubes.

Mr. SYDNEY JONES. (1) Exostosis and loose cartilage from the knee-joint; (2) Stomach after excision of cancer of pylorus.

Dr. PERCY KIDD. (1) Tuberculous ulceration of pharynx. (2) Polypoid tumour of the left ventricle.

Dr. HALE WHITE. (1) Atrophied bones of the arm after posthemiplegic rigidity. (2) Intestinal obstruction from old pelvic adhesion. (3) Thoracic aneurysm in a woman.

Dr. TURNER. Pistol shot fracture of cranium.

Dr. HOBSON. Malignant disease of cæcum.

Mr. SUTTON. Diseases of the ductless glands in wild animals.

Mr. SWINFORD EDWARDS. A cyst on the ulnar nerve.

Mr. LANE. Specimen of ununited fracture.

Mr. HORSLEY for Mr. HEATH. Recurrent myxœdematous tumour.

Mr. KNOWSLEY THORNTON. Mass of hair removed from a stomach.

Dr. GOODHART. Tumour of the pituitary body of an anubis.

Dr. SAINSBURY. Tubercle of brain.

Mr. ALBAN DORAN. Broad ligament-cyst developed above the Fallopian tube.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, APRIL 7TH, 1884.

Mr. J. S. TURNER, M.R.C.S., L.D.S., President, in the Chair.

Union of Fractured Incisor.

DR. BELLISARIO, of Sydney, New South Wales, read notes of the case of a gentleman, aged 27, who was thrown out of a dog-cart, striking his face against the stump of a tree. Three of the upper incisors were displaced and the fourth broken across transversely; the lower fragment could be

moved about in any direction, though with great pain to the patient, and crepitus could be distinctly felt. The displaced teeth were brought into their proper position and a thin gag inserted between the molars; only liquid nourishment was taken for several weeks. In the result, not only did the dislocated teeth become fixed, but the fractured incisor also united firmly, and at the end of three months all four were as strong and useful as they had been before the accident, and quite natural, both in appearance and sensibility.

The Influence of Micro-organisms in the Production of Dental Caries.

Mr. Arthur Underwood read a paper giving the results of further investigations on this subject, made by Mr. Milles and himself since the date of a former paper read before the Dental Section of the International Medical Congress in 1881. In this they had shown that certain forms of micro-organisms were invariably present in carious dentine; that no change resembling caries could be produced in the absence of these organisms, *i.e.*, under aseptic conditions; and that under septic conditions a change could be produced artificially which, if not undistinguishable from ordinary caries, certainly resembled it. The fact that organisms were invariably present had since been confirmed by numerous observers. It had been stated by one investigator—Dr. Miller, of Berlin—that the dentine was first softened by acid, that the invasion of micro-organisms was only secondary to this, and that a zone of softened dentine not infected with organisms always existed in advance of that which was so infected. He and his colleague, Mr. Milles, had, on the contrary, always found that the organisms extended as far as the softening; they could not find any softened tissue which did not contain micro-organisms, and they were of opinion that the acid which softened the dentine was produced by the organisms, just as occurred in ordinary processes of acid fermentation. They had cultivated the various organisms found in carious dentine in flasks containing purified blood serum, after the method introduced by Professor Koch, and had ascertained that there were several distinct varieties, but experiments made with the view of finding out which of these were the most active agents, gave negative results. Dr. Miller had stated that he had produced, artificially, caries which he defied anyone to distinguish from that which occurred in the mouth. Messrs. Underwood and Milles had repeated his experiments, and had tried several of their own, but with very partial success, for though a change resembling caries did take place in some instances, it invariably became arrested before it had gone very far. This comparative failure was no doubt caused by the difficulty of assembling in a flask or incubator experiment all the various conditions which were present in the mouth, and instances were quoted from the experiments of Koch, Pasteur, and Nægali, to show that micro-organisms, cultivated under conditions not altogether favourable, became weakened, and even lost their special attributes, so that the bacillus of anthrax, for instance, could be inoculated harmlessly. The authors of the paper claimed to have established that micro-organisms of a special form were an essential element in the production of dental caries. Food gets lodged between the teeth, and undergoes fermentation with formation of acid and bacteria; the acid destroys the enamel, the micro-organisms invade the dentine, and proliferate in its tubes, living at the expense of its organic material, their advance being accompanied by decalcification of the intertubular substance.

A discussion followed, the tone of which was distinctly favourable to the adoption of the views promulgated by Messrs. Underwood and Milles, which, it was remarked, would clear up some points which the purely chemical theory of caries did not explain, *e.g.*, the fact that the dentine was destroyed more rapidly than the enamel. And a hope was expressed that the discrepancies at present existing between the results arrived at by Messrs. Underwood and Milles, and those of Dr. Miller, might soon be settled by the help of independent testimony.

INTERNATIONAL HEALTH EXHIBITION.

INTRODUCTORY ARTICLE.

With due ceremony the greatest temple ever reared to the Goddess Hygeia opened yesterday, the 8th instant.

Our medical readers, through the medium of the daily journals, already know the origin, the scope and objects of the Health Exhibition, and we will not weary them with tales many times told, but in this and succeeding articles criticism will be our aim, the criticism of an expert, from an expert's point of view.

The Executive Council of an undertaking like the present Exhibition is, above all things, bound to make the venture popular and attractive; a financial failure is most to be dreaded, and hence they are perfectly justified in adding attractions and novelties which have but a remote connection with sanitary science. This we allow; nevertheless it is somewhat startling to find the hygiene of the camp and the vessel practically omitted. It surely might have been expected that the foremost naval power in the world would show various methods of ventilating ships—of feeding, clothing, and protecting sailors. Where are the countless appliances illustrated which have enabled, in modern times, British Armies to pass unscathed the malaria of the march, and the plague of the plain? The explanation of these omissions is to be found possibly in the constitution of the Executive Council. Strangely enough, no single member, except Dr. Buchanan, is officially engaged in the sanitary administration of the country. We presume that in any less enlightened land it would have been thought essential, for success and completeness, that half of the Council should be composed of health officers; but in England the rule is to place men in authority who have the advantage of being untrammeled by the prejudices of special knowledge.

The Exhibition has a twofold aspect—the aspect of a Show and a Lecture Room.

The old London street, the 5,000 electric stars, the long rich galleries, the throng of people from every clime, and the waters of the fountains gleaming with an inner weird light, make the exhibition as a spectacle unsurpassed, and render actual the impossible of the Arabian romances.

The handbooks, the conferences, the lectures, the Parkes Museum exhibit, the model dairies, the processes for the utilisation of sewage, and others are so many popular lessons, which will interest each visitor according to his receptive power.

The centre-piece of old London, is a quaint and costly work; the builder (Mr. Williams) estimates the cost roughly at 15,000*l.*; some of the printed descriptions have given the erroneous impression that as it stands it is an actual copy of a portion of the ancient city, but this is far from being the case; a large number of old prints, representing more or less celebrated houses in different parts of London,

have been collated, and from these a selection has been made, the period of the houses represented ranging as early as the fourteenth, and as late as the early part of the seventeenth century. It is scarcely necessary to say that the ground plan, as well as the interiors of the houses, are constructed entirely from imagination, supplemented by such hints as may exist in printed descriptions; the width of the street is also supposititious, and the surface drainage, which probably was then the only drainage, is not represented. Very fortunately, also, the garbage-sodden and odorous surface of the street will have to be left to the imagination. The models will bear a close comparison with the prints; all the details of external structure and ornamentation have been faithfully copied, the size of a few of the houses has been a little reduced, but mostly the size is presumed to be the same as represented in the prints.

"The Rose," of Fenchurch Street, "The Cock," of Leadenhall Street, "The Three Squirrels," "Whittington's House," "Elbow Lane," and "The Butcher's Row," will be to archæological minds delightful, but the professed sanitarian will regret that it was not possible to give some more true picture of the ancient city. Supposing 400 years hence nineteenth century London, vanished and half forgotten, has to be resuscitated in a similar way, what ideas would our ancestors gain of it by erecting Bennett's of Cheapside, Quaritch's of Piccadilly, Squire's of Oxford Street, Whiteley's of Westbourne Grove, the Holborn Restaurant, the First Avenue Hotel, and St. Pancras Church, in a double row, leading into Clare Market? Nevertheless these wood and plaster phantoms, evoked from their imprinted shadows, will without doubt attract thousands, and tend greatly to the success of the exhibition.

All that relates to the construction of healthy dwellings, from the first concept of the general design on paper, to the crowning actuality of chimney pots, is represented; there are bricks, floors, doors, windows, grates, mantel-pieces, tiles and cowls, in endless variety. There is also in construction a representation of a sanitary house, and one the reverse of sanitary. The latter is of course full of defects—damp, close, unventilated, the drains untrapped, the over-flow pipes from the cistern in communication with the sewer, and every ingenious appliance for letting as much bad air in and keeping as much good air out as possible.

In the models of artisans' dwellings, No. 388, Class 20, there is a distinct departure from the ordinary lines, and an attempt to grapple with the tenement question by boldly proposing to build a block in which each room shall contain a family, and in which several ingenious appliances are used to overcome the inconveniences and imperfections of this mode of living; but the details of this important group of exhibits must be left for one or more special articles.

Every hygienist will look with great favour on the competition between the electric lighting companies. Our dream is that, within the next five years at least, every public theatre and hall in the metropolis will follow the good example of the "Savoy," and abolish for ever the glowing alembics distilling carbon and sulphur dioxides, and adding their quota of heat and discomfort to that already emanating from a crowd. When all things are in full swing, twenty-two companies will exhibit; 5,000 of the lamps are incandescent, 300 are arc lamps. The incandescent lamp, in its steady glow, in its feeble heat, and in its general applicability to what may be called æsthetic illumination, is the domestic light of the future; it is scarcely possible that so uniform a light can injure sight in any way. The objections raised by the oculists in the earlier stages of electricity, when the light was a series of flashes, once well founded, are now wholly theoretical.

The three model dairies are well worth the study and attention of all; we have long been of opinion that the public supply of milk should only be in the hands of persons of considerable capital, for they alone can afford the necessary appliances, and take the necessary precautions which will minimise, as far as possible, the danger of drinking an animal secretion.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The ordinary monthly meeting of the Council was held on Thursday last, May 8th. The chief business transacted was the consideration of the Report of the Meeting of Fellows and Members on the 24th March. The first part of the Report dealt with the alterations proposed by the Council; which were of course received and passed. The proposals made by the Fellows and Members at large were next discussed. Concerning the resolutions that Fellows and Members be invested with a larger share in the management of the College, and that no alterations in the constitution or relations of the College be made without the consent of the Fellows and Members; it was resolved that no action be taken. The next resolution was practically carried, by the motion, that an Annual Meeting of the Fellows and Members be called to which a Report of the Council be presented. The next resolution concerned the mode of electing the President. It was moved by Mr. Heath, and seconded by Mr. Cadge, that the question be referred to the Committee on Charters and Byelaws to consider the same, and report thereon to the Council. To this an amendment was moved by Mr. Hulke and seconded by Professor Humphrey, that the election of President should, as at present, rest in the Council. The amendment was carried by a majority of 13 to 5—and was subsequently carried as a substantive motion. After the action of the Council it would not be necessary to alter the Charters, and hence the motion to this effect was not considered. The motion to combine with the College of Physicians and grant a title of Doctor to doubly qualified candidates was considered, and it was decided to take no action in regard to it. Sir Erasmus Wilson's resignation of his seat on the Council was next considered. It was accepted with expressions of regret for the cause of his retirement, and with a vote of acknowledgment of his liberality towards the College, in founding the lectureship associated with his name, and in other ways, and of his zeal in the service of the College. The President and Vice-Presidents presented their report on Mr. Quain's motion, that busts of past conservators be placed in the College; they advised the council should not act on it. Mr. Tweedy's letter concerning the resignation of certain Members of Council no longer in actual practice, which was referred to the President and Vice-Presidents, was further considered. It was decided not to take action, inasmuch as one gentleman to whom it referred had retired, and the other goes out of office in July next. Mr. Treves was introduced to the Council, and received his Jacksonian Prize. A letter was then read from the Hon. Secretary of the Poor Law Medical Officers' Association, asking the Council to petition the House of Commons, and the Local Government Board to make the Permissive Clauses of the Superannuation Act compulsory. Sir James Paget moved a vote of thanks to Dr. Arthur Farre, for the valuable collection of pathological drawings which he had presented to the College; this was passed unanimously. It was decided that the pass and pluck list be no longer published. The usual resolution for holding the annual meeting of Fellows for the election of Members of Council, in July next, was proposed and adopted. The Council then adjourned.

MEDICAL FEES IN GLASGOW.

In closing the session of the Medico-Chirurgical Society of Glasgow at the meeting held on the 2nd instant, Professor W. T. Gairdner, President of the Society, made the following remarks :—

Before sitting down he might mention that within the last few days his attention had been directed to an editorial article in the *Medical Times* of Saturday last, bearing on an important public institution in Glasgow, in which, as some of those present must be aware, there had been on more than one occasion differences between the lay directors and the medical directors, the medical and surgical staff of the institution being presumed to be in sympathy with the latter, but having on the most recent occasion been entirely ignored by the management. In commenting upon the dispute, the *Medical Times* put the following question [Dr. Gairdner read the article in question from the *Medical Times* of April 26th, page 562]. Now he had not the faintest idea who the writer of the article was, and he did not want to know. But it was evidently written by some one having access to local sources of information, and disposed to read a lesson out of the facts to the profession in Glasgow—a lesson which, being well intended, ought to be taken in good part. Therefore, let them, as medical men in Glasgow, ask themselves how far the facts were as the writer put them. If he were disposed to answer the question put, it would be in some way like this: that within his own knowledge the public estimation of medical men in Glasgow, as indicated by the test of the remuneration given to them, had been rising enormously during a considerable number of years. Coming, as he did, in contact with all classes of the profession in the city and neighbourhood, he had a fair amount of knowledge of the facts as regards especially the better class of practice, to which the article pointedly referred. Now he knew that within the last 22 years, during which he had lived in Glasgow, the fees of Glasgow practitioners in good practice had risen enormously; and he sincerely hoped that this very great improvement had not been altogether confined to the better class of practice. To him it would appear a thing improbable and, if true, very unfortunate, that while by the willing consent of the community the remuneration of the higher ranks of the profession had doubled or trebled during the period referred to, it should turn out that the hard-working practitioners doing duty mostly amongst the labouring classes had experienced no corresponding improvement. But as far as his information extended the leverage applied to professional remuneration from above, and this, let them observe, without any kind of pressure or trades-unionism, had, in fact, operated very generally all round, more or less, in Glasgow practice. This was the kind of answer which he would make to the remarks of the writer of the article, as regards remuneration. As to how far the profession had risen in general estimation correspondingly during these years when their remuneration had been increasing, he would not positively say, as it was a difficult and complicated matter to speak about; but most certainly as gauged by their education and general acquirements, it ought to have risen. The state of the preliminary examination of the medical profession in Glasgow, as well as in other parts of the country, was formerly very far from satisfactory. This was largely the fault of the schools, which were miserably wanting in proper provision for middle class education. In order that the profession should not fall short in point of numbers, its doors had to be opened to men who had not the education of gentlemen and who consequently had not and could not have the social status or the rank of gentlemen. In too many places the doctor in these days did not associate chiefly with the squire, or with the clergyman, but rather with the lower ranks of his patients, and from sheer want of mental resources he not unfrequently drifted into bad habits of living. The true way, therefore, to elevate the profession at large was to raise their education. This done, the fees would probably as a matter of course adjust themselves to the higher social status of practitioners. Without venturing to say that the medical profession was even now in all respects what the writer of the Article would desire or approve, it was at all events patent to everyone that a large proportion of its members in Glasgow were a vast deal better off socially than they were only a few years ago. The moral of the article was a perfectly just one. Over and over again he had told young men, that while eschewing anything in the shape of trades unionism, they ought, from the very first in their practice, to take up a good and firm position in the matter of remuneration. Let them, he had told them, say to their employers frankly, such and such were the terms on which they were willing to give their own services, and this, without any reflection, on the scale adopted and obtained by other practitioners. And the consequence was, that he had again and again known quite young men, when of good abilities and carefully trained, settling down in a district demoralised, so to speak, by a low rate of medical remuneration, and at once obtaining, almost as a matter of course, much higher fees than anything formerly paid in the district. Into the dispute, on which the article in the *Medical Times* was founded, he had no intention to enter, as it was by no means improbable that opportunities might yet occur of making a more effective stand than hitherto against a policy, which, as the Editor affirmed, could have been adopted in no other hospital or infirmary in the kingdom. To manage an essentially medical institution without regard to medical opinion was not in the face of it a very judicious or promising venture; and if the profession was only true to itself, it might be safely predicted that such an attempt must needs break down. He desired, however, on the present occasion to avoid, as far as possible, entering on controvertible matter, and would therefore with these remarks bring the Session to a close.

LIVERPOOL MEDICAL INSTITUTION

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners, on the 1st instant, viz.:—Messrs. Arthur F. Stace, L.S.A., Ledbury Road, W., of the Middlesex Hospital; Francis Dean, L.S.A., Albany Street, N.W., and C. R. Edwards, Antigua, W. I., of St. Bartholomew's Hospital; W. R. Puckett, L.S.A., Bath, of the London Hospital, and W. J. E. Sumpter, L.S.A., Clay-next-the-Sea, Norfolk, of University College Hospital. Six gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months; 233 candidates presented themselves for the examinations just completed, as compared with 220 at the corresponding period of last year; of this number 23 were referred to their professional studies for three months, 50 for six months, and two for nine months, making a total of 75 referred candidates. The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 5th instant, and when eligible will be admitted to the pass examination, viz.: — Messrs. Charles H. Melville, Ernest Roberton, Arthur R. Aldridge, Kenneth M. Scott, Caleb Terry, David D. Black, David Hume, Edmund W. Clarke, Ernest T. Roberts, Trevor J. Pritchard, Ernest B. Turner, and John R. Hill, students of the University of Edinburgh; William Calwell, of the Belfast School of Medicine; Edward L. Burd, of the Cambridge School; George M. Fox, of the Birmingham School of Medicine; John E. Stott, of the Liverpool School of Medicine; John Exley, of the Leeds School of Medicine; Francis W. Clark, of the Middlesex Hospital; and William E. Morgan, of the Aberdeen School. Four candidates were referred for three months and one for six months. The following gentlemen passed on the 6th instant, viz.:—Messrs. T. H. Griffith, H. H. Marshall, E. C. Kingdon, F. W. Collinson, A. E. Nevins, E. T. Pritchard, R. W. Smeddle, F. G. Clemow, F. T. King, and John Warnock, of the University of Edin-

burgh School; C. T. Hudson, Bristol School of Medicine; G. A. Ambler, Leeds School of Medicine; Foden Wilson, Liverpool School of Medicine; J. N. Lewis, University College Hospital; William Race, Newcastle School of Medicine; and William Downing, Birmingham School of Medicine. Eight candidates were referred for three months. The following gentlemen passed on the 7th instant, viz.:—W. H. Turton, C. C. Teacher, Arthur Wood, J. G. Glover, J. W. Smith, students of the University of Edinburgh; William Routh, of St. George's Hospital; C. H. Wild, Liverpool School of Medicine; H. S. Fremlin, Westminster Hospital; A. M. Gledden, St. Bartholomew's Hospital; Edward Posnett, Leeds School of Medicine; F. J. Lankester, St. Thomas's Hospital. Twelve candidates were referred for three months and one for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 1st, 1884:—

Ackland, Charles Kingsley, Bideford, N. Devon.
Des Vœux, Harold Antoine, 14, Sussex Villas, Kensington.
Hodgson, Gerald George, 52, Montpellier Road, Brighton.
Penny, Francis, Coombe, Crewkerne.
Phillips, Ernest Willmer, 75, Lansdowne Place, Brighton.

The following gentlemen also, on the same day, passed their Primary Professional Examination:—

Jackman, Charles Howard, London Hospital.
Roberts, Leonard, St. Mary's Hospital.

UNIVERSITY OF LONDON.—The following gentlemen have been elected Examiners in the Medical Faculty:—Practice of Medicine: Mr. W. H. Broadbent, M.D., and Mr. W. Miller Ord, M.D. Surgery: Sir William MacCormac, M. Ch., M.A., and Prof. John Wood, F.R.S. Anatomy: Prof. D. J. Cunningham, M.D., C.M., F.R.S. Eng., and Mr. H. Greenway Howse, M.S., M.B. Physiology: Prof. Arthur Gamgee, M.D., F.R.S., and Prof. Gerald F. Yeo, M.D. Obstetric Medicine: Mr. J. M. Duncan, M.D., LL.D., F.R.S., and Mr. John Williams, M.D. Materia Medica and Pharmaceutical Chemistry: Mr. T. Lauder Brunton, M.D., C.M., D. Sc., F.R.S., and Prof. F. T. Roberts, M.D., B. Sc. Forensic Medicine: Mr. Augustus J. Pepper, M.S., M.B., and Prof. George Vivian Poore, M.D., B.S.

UNIVERSITY COLLEGE.—The prizes will be distributed to the successful students in the Medical Faculty, by Lord Kimberley, at 3 p.m., on Wednesday, the 21st inst.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The thirtieth election of Pensioners and Foundation Scholars will take place on Monday, May 26th, and the result will be announced on Thursday, May 29th. In making this statement it may be added, with that regret which will be shared by many readers of the *Medical Times and Gazette*, that for the two vacant pensionerships there are twenty-five candidates, viz., twenty-one ladies and four gentlemen, of which number only five are subscribers to this excellent institution. For the seven foundation scholarships there are just four dozen candidates; still more regretable is it to state that only six of their parents were subscribers to the College.

THE ARMY MEDICAL DEPARTMENT IN THE SOUDAN CAMPAIGN.—Sir Gerald Graham, in his detailed despatches, highly compliments Surgeon-General McDowell on his able administration of the department, and especially mentions the following officers as conspicuons for their care and attention to their important duties in the field on the occasion of the actions at El Teb and Tamai:—Surgeon-Major Wilson, principal Medical Officer of the Infantry Brigade; Surgeon-Major Connolly, principal Medical Officer, Cavalry Brigade; Surgeon Prendergast, who was badly wounded while attending a wounded man at Tamai: Surgeon-Major Catherwood, principal Medical Officer at the base, and Surgeon-Major Greene, at El Teb; Surgeon-Major Venour had charge of the sick on hospital ship at the base (Her Majesty's ship *Jumna*), and, assisted by a detachment of Army Hospital Corps, made every possible provision for the care of the wounded on their passage to Suez.

THE EDINBURGH MEDICAL SCHOOL.—SUMMER SESSION.—Nearly all the classes in the University and extra-mural Medical School were opened on the 1st instant. The classes in the University Faculty of Medicine, except those of Botany, Natural History, Clinical Medicine, and Clinical Surgery, meet now in the University new buildings.

WEST LONDON HOSPITAL.—A short course of lectures to ladies and nurses on, "The Health and the Nursing of Children," will be given at the above Hospital, by members of the Medical Staff, on the following Mondays, at five o'clock in the afternoon:—Lecture I—May 26th, "The Nursery and its Management," Dr. Venn; Lecture II—June 2nd, "Food and Feeding," Dr. Drewitt; Lecture III—June 9th, "The Care of the Eyes," Mr. Vernon; Lecture IV—June 16th, "The Care of the Teeth," Mr. Underwood; Lecture V—June 23rd, "The Early Symptoms of Illness," Dr. Hood; Lecture VI—June 30th, "Simple Remedies and their Application," Dr. Thorowgood; Lecture VII—July 7th, "Care not Over-anxiety," Dr. Goddard Rogers. The fee for admission to the entire course is 10*s.* 6*d.*

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—A *Conversazione* was held at the Charing Cross Hospital Medical School, on Thursday, the 1st instant, on the occasion of the opening of the Summer Session. The building was tastefully decorated, and there were a large number of interesting objects exhibited. The company were received by the Treasurer, Dr. Julius Pollock, and the Dean, Dr. Mitchell Bruce. Besides the members of the staff, which was well represented, a large number of guests attended the meeting amongst whom were Sir William Bowman, Sir Richard Pollock, Sir Joseph Fayrer, Sir Guyer Hunter, Mr. Campbell, M.P., Dr. Quain, and others.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST.—On Tuesday the Earl of Shaftesbury laid the foundation stone of the new wing of this hospital.

INTERNATIONAL HEALTH EXHIBITION LIBRARY.—In response to an invitation issued by the executive council, who have assigned large rooms to be used as a library and reading-room, in connection with the exhibition, numerous authors and publishers have already sent copies of works on subjects embraced by the two divisions of the exhibition—Health and Education. The books are being classified by Mr. Carl A. Thimm, the librarian, and a catalogue will shortly be published. As it is very desirable that the library should be rendered as complete as possible, and that the catalogue should be issued at an early date, it is hoped that those desirous of sending books, should forward them with as little delay as possible to the Librarian, Albert Hall, W.

A SATISFACTORY DECISION.—Dr. Darley, Q.C., the County Court Judge of Wicklow, recently delivered a judgment upon a claim made by Dr. Halpin, medical officer, against the Guardians of the Rathdrum Union, in that county, which will be hailed with satisfaction by the profession. Dr. Halpin had been directed by the sanitary authorities, under the Labourers' Act, to institute inquiries as to whether certain houses required to have their accommodation increased. After inspecting 22 houses he furnished his account, but the guardians declined to allow him anything for his services, alleging that, being in the receipt of a salary as medical officer, he was not entitled to make any charge. If this plea were valid, the Legislature might accumulate any work they liked upon the sanitary officer, and hold him responsible if he failed to do it. Dr. Darley, however, held a different view of professional rights, and gave a decree of 22*l.*, the full amount claimed.

HOSPITAL PROVISION FOR EPIDEMIC DISEASES IN EDINBURGH.—The work which the Corporation last year took in hand of providing a new hospital for epidemic diseases is slowly approaching completion, but a great deal remains to be done before the building will be ready for the reception of patients. Happily, it is not at present required. The surgical hospital of the Old Infirmary has been transformed into what is intended to be an epidemic hospital, with separate departments for the more distinct forms of infectious diseases—small-pox, typhus, typhoid, and measles; and the interior is being arranged and fitted up under the supervision of the Medical Officer of Health, the Health Committee, and the City Superintendent of Works. The building is a very large one, and is being admirably adapted

to all possible requirements of the city. As workmen are still employed on the building, and as the grounds have yet to be laid out, several weeks will elapse before the hospital can be said to be completed.

CALCUTTA EXHIBITION.—Messrs. Burroughs, Wellcome, & Co., have been awarded eleven medals (three gold, four silver, four bronze), and twelve diplomas of merit, for their exhibit of chemical and pharmaceutical products.

PHTHISIS IN LONDON AND DUBLIN. — Mr. Edward Spencer, who has been making some interesting statistical enquiries into the mortality of phthisis in Dublin, has come to the conclusion that children in London are born under less favourable conditions than those in Dublin, and succumb more rapidly to phthisis at the ages 0—5; that those who survive make a much harder struggle against the disease than the corresponding class in Dublin; and that, in short, consumptive people in London live much longer than those in Dublin.

THE VIENNA MEDICAL SCHOOL.—According to the "Lecture Catalogue," just published, 5,221 students were inscribed at the Vienna University during the winter session 1883-84, and of these 2,013 belonged to the medical faculty. This number of medical students has been increased by 263 for the present summer session.

"TRAUMATIC APOPLEXY" was the euphemistic verdict of a Coroner's jury as to the death of a student in Yale College, who died shortly after having been knocked down in a sparring match with one of his fellows.

APPOINTMENTS.

ALLEN, WILLIAM HAMILTON, B.A., M.B., L.R.C.S. Ire., and L.M.—Medical Officer to the Sixth District, Lincoln Union.
CAMPBELL, ARCHIBALD, M.B. and M.C. Glas.—Medical Officer to the Workhouse, Bingham Union, *vice* Charles Rowland, resigned.
CLEGG, W. T., M.R.C.S., L.R.C.P.—Assistant Surgeon to the Liverpool Hospital for Cancer and Skin Disease.
COOK, J. W., M.B., C.M. Aber.—House Surgeon to the Aberdeen Royal Infirmary.
GILBERT, HENRY, M.R.C.S., L.S.A. Lond.—Medical Officer to the Fifth District, Wolverhampton Union, *vice* John Hancox, resigned.
GREEN, CHARLES, M.D., M.R.C.S.—Medical Officer to the East Relief District, Gateshead-on-Tyne, *vice* George Douglass, M.D., resigned.
GREEN, CHARLES, M.D. Dur., M.R.C.S. Eng., L.S.A. Lond.—Medical Officer to Gateshead Eastern District, Gateshead Union.
INGLIS, A.S., M.B., C.M. Aber.—Resident Surgeon to the Aberdeen Royal Infirmary.
KNOWLES, EDWARD, M.B. and M.C. Aberdeen.—Medical Officer to the Third District, Birkenhead Union.
KNOX, CHARLES, M.R.C.S. Lond., L.S.A., L.R.C.P. and L.M. Ire.—Medical Officer to the Second District, Birkenhead Union.
LUPTON, HARRY, L.R.C.P. Lond., L.R.C.S. Eng.—Medical Officer to the Alveston District, and the Workhouse of the Stratford-on-Avon Union, *vice* John Gairdner, resigned.
MALCOLM, J.D., M.B., C.M.—Surgeon to the Out-Patient Department, Samaritan Free Hospital, *vice* Skene Keith, M.B., C.M., resigned.
MAURICE, W. J., B.A. Oxon, M.R.C.S., F.R.C.P.—Assistant Surgeon to the Royal Berks Hospital, *vice* H. G. Armstrong.
MCNEILL, JOHN BOBINSON, M.D. and M.C. Queens University, Ire. Medical Officer to the Workhouse and Schools, Birkenhead Union.
PATERSON, W. B., M.R.C.S., L.D.S.—Medical Tutor to the Dental Hospital of London, Leicester Square, W.C.
STOOKES, A., M.B., C.M., L.R.C.S.—Senior House-Surgeon to the Liverpool Children's Infirmary, *vice* G. G. Hamilton, M.B., C.M., resigned.
STURGES, O., M.D., F.R.C.P.—Physician to the Hospital for Sick Children, Great Ormond Street, *vice* Dr. Dickinson, retired.
WALLACE, WILLIAM, M.B. and M.C. Glas.—Medical Officer to Bolsover District, Chesterfield Union, *vice* J. E. Slaughter, resigned.
WRIGHT, CHARLES J., M.R.C.S. Eng.—Assistant-Surgeon to the Hospital for Women and Children at Leeds.

VACANCIES.

BUCKS COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. (*For particulars see Advertisement.*)
ELY UNION.—Medical Officer for the Downham District, in succession to Mr. F. M. Beckett, resigned. Area, 13,430 acres. Population, 2,407. Salary, £40 per annum.
NORWICH UNION.—Medical Officer to Fifth District, in succession to Mr. Thomas Thwaites Breese, resigned. Population, 16,708. Salary, £30 per annum.
GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—Ophthalmic Surgeon. (*For particulars see Advertisement*).
HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND STREET, W.C.—Assistant Physician. (*For particulars see Advertisement.*)
ROYAL SOUTH LONDON DISPENSARY, ST. GEORGE'S CROSS, LAMBETH ROAD, SURREY.—Resident Medical Officer and Dispenser. Salary £100 per annum, with furnished apartments, coals, and gas. Candidates must be doubly qualified and unmarried; they are strictly prohibited from engaging in private practice. Particulars of the duties may be obtained on personal application at the Dispensary. Applications, with testimonials of recent date to be forwarded to the Dispensary, addressed to the Committee, on or before May 12th.
SALOP INFIRMARY, SHREWSBURY.—House Surgeon. Salary £100 per annum, with board and residence. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh or Dublin, and hold a qualification to practise medicine. Testimonials, with certificates of qualifications, to be addressed to the Board of Directors, not later than May 13th.

DEATHS.

ARNOLD, JOHN, M.D., of Port of Spain, at Closebrooks, Antibes, France, on May 2nd.
BIBBY, SAMUEL HALE, M.R.C.S., at 60, Green Street, Grosvenor Square, on April 25th.
BISSILL, AUSTIN CHARLES, M.R.C.S., at sea, on board the ship *Parramatta*, on April 9th, aged 25.
CARNEGIE, JOHN, M.A., M.D., at Chesterfield, on May 4th, in his 51st year.
RICHARDSON, JAMES, L.R.C.S., at Castle Hill, near Ealing, on May 2nd, in his 68th year.
WILLIAMS, HENRY FRANCIS, M.D., Deputy Surgeon-General H.M. Indian Medical Service (retired), at Southsea, on April 27th.

NOTES, QUERIES, AND REPLIES.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

[TO THE EDITOR OF THE MEDICAL TIMES.]

DEAR SIR,—Will you kindly insert in your next issue the enclosed copy of a letter addressed to the Honorary Secretary of the Association of Members of the Royal College of Surgeons.

I am, dear Sir, yours, &c.,
May 5th, 1884. WILLIAM HICKMAN.

To the Honorary Secretary of
The Association of Members of the Royal College of Surgeons of England.

DEAR SIR,—Will you please withdraw my name from the Association of Members of the Royal College of Surgeons of England.

When you were kind enough to urge my joining the Committee of the proposed new Association, I understood that other Fellows of the College had consented to act on it, and that the Association would be representative of the Fellows and members generally.

Under present circumstances my presence on the Committee might be misconstrued, and I should be very sorry to take up a position which could under any possibility be considered as one of antagonism to the Fellows.

I am, dear Sir, yours, &c.,
WILLIAM HICKMAN, F.R.C.S. Eng.
1, *Dorset Square, N.W.*,
May 5th, 1884.

Anatomy and Physiology.—The following were the questions submitted to the 177 candidates at the primary examinations for the diploma of Membership of the Royal College of Surgeons on the 2nd instant, when they were required to answer four and no more out of the six questions, between 1 and 3 o'clock p.m., viz.:—*Anatomy*—1. What are the distinctive characters of the male and female pelvis? 2. Give an account of the venous circulation in the cranial cavity. 3. Give the dissection required to expose the anterior surface of the brachialis anticus. Describe that muscle. 4. How would the collateral circulation be carried on after ligature of the innominate artery? 5. Describe the anatomy of the upper and lower lips. Give the attachments and nervous supply of the muscles inserted into them. 6. Give the action and nerve-supply of the muscles which move the femur on the pelvis, and state precisely the action of each muscle.

The following were the questions on *Physiology*, to be answered between 4 and 6 o'clock the same day, viz.:—1. Name the muscles concerned in ordinary inspiration. Describe the alterations in form and position of the diaphragm in respiration. How are these alterations effected? 2. Describe the fœtal circulation, and the changes which occur at birth in the course of the blood-stream. How are these changes brought about? 3. Describe the structure and uses of adipose tissue. What change does this tissue undergo in digestion when taken as food? 4. What is meant by automatic and reflex nervous action? Give examples of each. 5. Describe the physical and chemical changes which occur in striated muscle during contraction. 6. Explain the physiological meaning of the term "cell." Give examples of the different modes of cell multiplication that occur in the human body.

COMMUNICATIONS RECEIVED—

The Registrar of the University of London, London; Messrs. Nash, Stephens, & Co., London; Mr. C. Lowther Kemp, London; The Registrar of the University of Durham; Mr. Cambell, London; Mr. E. Bellamy, London; Dr. Donkin, London; Mr. Covernton, Ontario, Canada; Dr. Makuna, Pontypridd; Messrs. H. W. Carter & Co., Bristol; The Secretary of the Apothecaries' Society, London; The Librarian of the Health Exhibition, London; Dr. J. W. Langmore, London; Mr. Thomas Jones, Calcutta; The Lecturers of the West London Hospital; Dr. Galle, Ceylon; The Director of the Anthropological Institute, London; Dr. Barrs, Leeds; The Secretary of the Royal Institution, London; Mr. T. M. Stone, Wimbledon; The Secretary of the Royal Microscopical Society, London; Mr. W. Hickman, London; Mr. Talfourd Ely, London; Messrs. Jeffrey & Co., London; Dr. Clifford Beale, London; Mr. Wynter Blyth, London; Dr. W. T. Gairdner, Glasgow; The Registrar-General, Edinburgh; Mr. Alex. Duncan, Glasgow; Messrs. A. & F. Pears, Isleworth; The Sanitary Commissioner of the Punjab, India; Messrs. Welford & Sons (Limited), London; The Secretary of the Alexander Memorial Fund, London; The Secretary of the Devonshire Hospital and Buxton and Bath Charity; The Secretary of the Royal College of Surgeons, Edinburgh; Dr. C. Mercier, Dartford, Kent; Mr. E. Decroix, Paris; Dr. L. Parks, Pau, France; Dr. J. W. Moore, Dublin; The Secretary of the Royal Medico-Chirurgical Society, London; The Secretary of the Charing Cross Hospital Medical School, London; The Hon. Secretary of the Harveian Society, London.

BOOKS RECEIVED—

On the Use of Force in the Treatment of Resistant Club-Foot, by E. H. Bradford, M.D.—The Gheel Lunatic Colony, by Dr. G. A. Tucker, Ph.D.—Surgery, its Principles and Practice, by T. Holmes, M.A. Cantab.—Physiological and Pathological Chemistry, by T. C. Charles, M.D.—China: Imperial Maritime Customs; Medical Reports. 26th Issue.—London Municipal Government: Opinions of the Press—Die Technik der Massage, von Dr. Albert Reibmayr—Drugs and Medicines of North America—Report on the Health, Sanitary Condition, &c., of the Borough of Hastings, for the Quarter ending March 31, 1884—Annual Report of the Bradford Eye and Ear Hospital for 1883—Report of St. Mary's Hospital, Cambridge Place, W., for 1883.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—The Therapeutic Gazette—The Alienist and Neurologist—Amateur Gardening—Archives Générales de Médecine—The Glasgow Medical Journal—Rivista Internazionale di Medicina e Chirurgia—The Birmingham Medical Review—The Ophthalmic Review—Centralblatt für Therapie—The Western Medical Reporter—Friendly Greetings—The Leisure Hour—The Sunday at Home—The Girls' Own Paper—The Boys' Own Paper—The Australian Medical Journal—The World, Melbourne, March 8th—Archivio de Ortopedia—The Englishman, Calcutta—L'Abus du Tabac—The Archives of Pediatrics.

APPOINTMENTS FOR THE WEEK.

Friday, May 9 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society of London, 8 p.m.—Mr. Clutton, "A Case of Intestinal Obstruction caused by a Diverticulum, successfully treated;" Mr. Christopher Heath, "Cases Illustrating the Treatment of Fracture of the Patella;" Dr. Whipham, "Case of Hydrocephalus of old standing, Insanity, Death;" Mr. William Anderson, "Case of Pyelo-Lithotomy;" Mr. Charters G. Symonds will show a case of "Ruptured Brachial Plexus."

Royal Institution, 8 p.m.—Prof. W. R. Smith, "Mohammedan Mahdis."

Saturday, May 10.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Mr. H. M. Westropp, "Roman Archæology: The Palatine Hill."

Monday, May 12.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, May 13.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute of Great Britain and Ireland, 8 p.m.—Mr. E. H. Man, "On the Ethnology of the Andoman Islands;" Prof. Flower, F.R.S., President, "Additional Observations on the Osteology of the Natives of the Andaman Islands."

Royal Medical and Chirurgical Society, 8.30 p.m.—Mr. F. J. Gant, "A Pelvic and Parietal Tumour of the Abdomen, Removal by Operation, and Recovery;" Dr. George Harley, F.R.S., "An Easy and Safe Method of Sounding for Impacted Gall-stones;" Dr. G. E. Herman, "An Average, or 'Composite,' Temperature Chart of Small-pox."

Royal Institution, 3 p.m.—Prof. Gamgee, "Nerve and Muscle."

Wednesday, May 14.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Epidemiological Society of London, 8 p.m.—Joseph Ewart, M.D., F.R.C.P., on "The Colonisation of the Sub-Himalayahs and Neilgherries, with Remarks on the Management of European Children in India." Council Meeting at 7.30 p.m.

Royal Microscopical Society, 8 p.m.—P. Herbert Carpenter, D.Sc., on "The Minute Organisation of the Nervous System of Crinoids."

Thursday, May 15.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution, 3 p.m.—Prof. Dewar, "Flame," &c.

Friday, May 16.

Royal Institution, 8 p.m.—Prof. Odling, "The Dissolved Oxygen of Water."

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The Medical Times *is published on Friday morning. Advertisements must therefore reach the Publishing Office not later than Two o'clock on Thursday.*

MEDICAL TIMES
AND GAZETTE.

No. 1768. LONDON, SATURDAY, MAY 17, 1884.

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CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

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Physician to the Hospital.

LECTURE I.—*General Principles.*

GENTLEMEN,—When we say that to cure disease is the ideal aim of medicine, we seem to be uttering an obvious truism, and yet I have read of a distinguished French physician, who, referring to one of the horde of "irregular practitioners," observed, "*Ce n'est pas un médecin, c'est un guérisseur*,"—"He is not a physician, he is a mere curer of disease." Let us examine this seeming paradox.

At the time when medicine had no just claim to be called a science; when it was almost wholly an art, founded on a certain number of empirical rules, its *ideal aim* might no doubt be expressed in this simple fashion. But as medicine has become more and more of a science, its ideal aim has necessarily changed somewhat, and we certainly may now say that for many amongst the most distinguished of living physicians, their ideal aim is to *understand* rather than *to cure* disease. In this we see the difference between medicine as a science and medicine as an art. One aims at understanding—the other aims at *curing*. But are not these aims identical? In a large, universal sense they are; in a small, limited sense they are not. To *understand* disease would seem to be the first step towards curing it; but from the nature of things we often have to treat disease, to attempt to cure it, without understanding it in anything approaching a scientific sense, and sometimes without understanding it at all. Now there are those who appear content to deal with disease in this small way, to concern themselves exclusively with the work of encountering disease with such means as they have learned, empirically, to be useful. It is needless to say I am now only speaking of honest men in both senses. The French physician probably included amongst his "*guérisseurs*" a large class whose honesty might be questionable. But if this small view of the aim of medicine is inadequate, unprogressive, and unworthy, the larger view, if kept too exclusively before the mind, is not without its dangers. If we look back over the history of medicine during the past half century we shall notice that a remarkable change has taken place within this period, resulting from the fact that medicine has made extraordinary progress in the direction of becoming a science. In the first place the study of the several collateral and tributary branches of natural science, once closely associated with practical medicine, have become more and more separated from it.

The most learned anatomist used often to be the most

accomplished surgeon; the most renowned physiologist the most popular physician. The teaching of chemistry, botany, comparative anatomy, and histology used not to be thought incompatible with the duties of practising physicians and surgeons. But these collateral sciences have assumed such vast proportions, they have such interesting aims and ends of their own to offer to those who cultivate them, that they are now for the most part followed and taught by men who devote themselves almost exclusively to the advancement of their own branch of science.

Something of the same tendency crept into the study of pathology, and especially in so far as pathology was identified with morbid anatomy and histology, and so it happened that the ideal aim of medicine, viz., "to cure disease" became somewhat overlooked in the active prosecution of those anatomical investigations which had for *their* aim and end the "understanding of disease." The danger attending this tendency was that those who were devoting themselves with admirable energy and industry to so-called pathological studies were growing indifferent to what should be the ultimate aim of all these pursuits, viz., the cure of disease, and this tendency brought with it a scepticism as to the value of all efforts to treat disease which was irrational in itself and injurious to our influence and reputation with the public. But this period of scepticism as to the remedial treatment of disease, this period of exclusive devotion to understanding rather than curing disease, was destined, necessarily, to be of short duration. In the first place the great science of pathology could not be limited to the study of morbid anatomy and morbid histology, for it embraces the knowledge of everything that has to do with disease, and therefore is greatly concerned with the action on disease of whatever agents can be brought to bear upon it, and this is the *treatment of disease.* The treatment of disease is as much a part of pathology in its widest sense as is its morbid anatomy. Our modern pathology has been chiefly analytical; we have pushed the anatomical study of disease almost to its extreme limits, and we are now returning, richly laden with most valuable knowledge, the results of our analytical methods, to a more synthetical pathology, in which the treatment of disease is beginning to vindicate its just claim to scientific recognition, and to again be, as the outcome of all our knowledge, the ideal aim of medicine.

The introduction of the experimental method into therapeutics has contributed much towards raising this branch of medical science to its present position. We possess now a sound basis of physiological therapeutics, the area of which is daily widening, and as it extends it invades the territory of the men "*guérisseur*," and adds it to the domain of the physician because it tends to render the knowledge of disease and the curing of disease co-extensive. One word more as to the distinction between the "*guérisseur*," the curer and the "*médecin*," the physician. A rubber, a kneader, an applier of baths, of electricity; a mesmerist, a conjuror; all these may be *curers* of disease, and many of these, whether they be charlatans or not, often possess a certain skilfulness which is not without its value. But their aim does not extend beyond the cure of the particular person or persons with whom they are dealing. How different is the aim of the physician! He works not for the one, but for the many; not for the individual but for humanity; not for the present only, but for the future, for all time. For he strives to divine the secrets of Nature, and he trusts that the outcome of his life-long labours will be to leave the human race with some infirmity the less, or with some phase of disease conquered or more completely under control. And although we assert that to cure disease is the ideal aim of medicine, we also fully sympathise with him who said, "*Ce n'est pas un médecin, c'est un guérisseur.*"

I commence to-day a task which I think ought to be attempted, and one to which I am inclined by the nature of my previous studies and observations and by the natural tendency of my mind. I propose, in a series of lectures which must necessarily be a long one, though it will naturally be broken into several more or less distinct parts, to gather together and present to you, with such fitting comments and illustrations as may present themselves, the various fruits of our therapeutic researches so far as they have at present advanced.

I propose to deal fully and thoroughly with the subject of the treatment of disease as we have to deal with it clinically. The French and German literatures are much richer in works on the treatment of disease than our own; but valuable as these are, I venture to think there is an English treatment of disease which is nothing behind that of France or Germany, and it is this English method of treating disease of which I shall attempt to be the exponent.

On commencing a task of this kind, we naturally ask ourselves have we any *general principle* to guide us in the treatment of disease? Any truth of universal application? Can we practically (and all treatment is practical) speak of "disease" in a general sense and as a thing that can be considered of itself and apart from the *various* fluctuating conditions or sets of conditions which we call "diseases"? It seems to me that we cannot. The word disease is applied to conditions so widely different as well as so complex, that we can scarcely fit it with a definition. What similarity or likeness for instance can be seen between an opacity of the crystalline lens and delirium tremens? Between a vesical calculus and chorea? Between a carious bone and typhoid fever? Between an innocent fatty tumour and acute tuberculosis? Between a primary venereal sore and epilepsy? I could go on enumerating many other widely contrasted conditions, differing in their nature, differing in all their phenomena, differing in everything but this: that they all present, in a greater or less degree, deviations from normal structure (though it may only be in quantity), or disturbances of normal function, although it may only be in a small degree of activity. This is the only definition I know of, sufficiently comprehensive, to include all those conditions which come under the category of diseases. You should regard the word "disease" as merely a convenient ticket or label applied to a vast number of entirely dissimilar conditions.

Is it rational to suppose that we can arrive at any general principle of treatment, which shall be applicable in common to all these strongly contrasted conditions? I do not see how it is possible. Yet the existence of such words, the use of such words as "allopathy," and "homœopathy," indicate the survival of such a belief.

Both these terms, although they are commonly used as opposites, have this in common, that they are survivals of the pre-scientific period of medicine; they are the most conspicuous surviving representatives of dogmatic medicine.

It is the property of science to displace dogma, to present physical demonstration in the place of metaphysical speculation and hypothesis. Minds of a positive scientific turn see this, and admit it at once; minds of a metaphysical and mystical turn contest it step by step, and cling with desperate tenacity to the old, ragged garment of mystery which is rapidly falling from medicine.

There is no place for dogma in natural science, and as medicine is a branch of natural science, dogmatic medicine must necessarily become a thing of the past. It will die hard, I have no doubt, but die it must.

This being the case, is it worth our while to examine any of these dogmas? I think it is. I think it will be useful to examine one of them, in order to exhibit the exact relation of scientific medicine to it.

I am not going to argue for the purpose of converting any one; or of changing any one's belief. We learn, sometimes with much surprise, as our experience of life and of men widens, that beliefs, or what are called beliefs, are often more entirely matters of will, of temperament, or of feeling than of reason and reflection.

Do you suppose that out of 100 persons who say they *believe* in homœopathy or allopathy, for instance, there is one who has any clear conception of what he means? Who realises that it pretends to apply a general principle to the treatment of disease? That it teaches a dogma, which, if it were true, would be a sort of mysterious revelation to humanity? No doubt there are some who actually do believe this. The dogma *similia similibus curantur*, so long as it was opposed to the other dogma, *contraria contraris curantur*, was simply one error opposed to another error, one dogma to another dogma; and whoever believed in the latter dogmatically had no right to find fault with those who believed in the former. But I repeat it is the property of science to displace dogma, and scientific medicine has no dogmas.

The doctrine of similars (or the doctrine of contraries), is, as you will see, a mystic dogma, for it teaches that drugs contain a mysterious power of indicating their own uses, by producing in the healthy organism an image or semblance of the diseases they can cure!

It is pitiful to think how much time and energy have been expended over this wretched figment of the imagination. The question of dose is one entirely distinct from this dogma; whether a drug should be given in a dose of a grain or a millionth of a grain is altogether a matter of experiment.

The same may be said of the selection of drugs; and apart from their dogma, which I maintain has been altogether injurious to medical science, I believe that the homœopathists have, in many instances, called attention to the value of drugs which had been too much neglected. I might daily and hourly use every drug in their dispensatory, and in the smallest possible doses, nor should I hesitate for one moment to do so; but I should not, on that account, be a homœopathist; the only test for me in such matters, being experiment. My mind is absolutely open on such points, and free from prejudice. We must prove everything that is capable of such proof, by the laws of experimental science; that is the only test of truth in medicine that I know of.

But although I maintain that, in the nature of the case, there can be no absolutely *general* principles applicable to the treatment of disease in a general sense, it may be quite possible to find principles of partial application—principles applicable to certain groups or classes of disease. Such a principle, of which a good deal was made at one time, was that of *elimination*. It was argued that in certain diseases some of their phenomena, or symptoms, were due to an effort of the organism to throw off, or *eliminate* the *materies morbi*, the disturbing matter in the body acting as a cause of the disease, and that it was an obvious duty to endeavour to aid Nature in her attempt. For instance, in typhoid fever there is an eruption especially affecting some of the intestinal glands, which become infiltrated and swollen, and then ulcerate. This is often attended with diarrhœa, and occasionally with hæmorrhage and perforation of the bowel. This has been regarded as an attempt to *eliminate* or throw off the poison of typhoid fever by the intestinal glands, and it has been urged that, this being the case, we ought not to attempt to check the diarrhœa, but, at least, let it have its course.

Again, in acute rheumatism—one of the phenomena of that disease is a profuse secretion of acid perspiration, and this has been regarded as indicating an effort of Nature to eliminate the poison in the blood through the agency of the cutaneous glands; hence it has been regarded as useful and proper in the treatment of this disease to promote and encourage this effort at elimination.

Regard to the same principle is implied in the common practice in the treatment of the eruptive fevers, of doing nothing that can "check the eruption."

It was a belief in this principle that led at one time to the giving of purgatives in cholera.

But a very little reflection will be sufficient to show that considerable risk attends the incautious or too liberal application of this principle. In the first place it is not altogether certain that what we look upon in these instances as processes of elimination really are such. In the second place it is quite certain that in some cases, as in typhoid fever for example, if the process I have referred to as occurring in the intestinal glands is a process of elimination, that process itself may be *the* chief danger in the case, and instead of promoting the process of elimination the chief object of treatment must be to moderate or retard it.

Another principle of partial application in medicine and one which we may have unconsciously practised in many instances, is the principle of *antiseptic* treatment. This principle is founded on the germ theory of disease. Its object is to introduce into the organism substances or conditions which shall prove hostile to the life and development of the parasite upon which the disease depends. The most remarkable application of this principle is in the case of syphilis—here mercury and iodide of potassium seem hostile to the life and growth of the syphilitic fungus. The same principle probably explains the action of quinine and arsenic in intermittent fever; it has been applied also to the treatment of whooping-cough, diphtheria, phthisis, and other diseases believed to be caused by the presence of an organism or "germ" vegetating within the body. It seems not improbable that this principle may exert a very decided influence on the therapeutics of the future.

Sir Joseph Lister recently dwelt upon the important fact that the organisms which produce particular diseases are only able to develop under very special conditions, and instanced the case of the bacillus, which produces septicæmia in the house mouse, being unable to produce any injurious effect on the field mouse; which showed that the very slight difference in the blood of these two animals was sufficient to alter the conditions favourable to the development of the bacteria; and that so it was possible to conceive that, by the administration of some medicine, sufficient alteration might be produced in the blood of the human system to kill off or to prevent the development of any special bacteria on the first appearance of the symptoms of the disease in the patient.

There are, however, but very few instances in medicine of such partially applicable *principles* of treatment.

Yet there is one principle of very wide application in the treatment of disease which acts sometimes with, and frequently without, our co-operation. It is the oldest known principle in the treatment of disease that exists, being as old as disease itself. It has often been mistaken and misunderstood, and while it is itself true it has been the parent of much error and misconception. It is one which must always traverse our observations and experiences, and one which we must in no wise despise or disregard.

I allude to the influence which the mind is capable of exerting over the condition of the bodily organs. This principle of itself is equal to accounting for the

successful results which attended many of the oldest therapeutic processes, as well as some of the most modern. Amulets, charms, music, incantations, were amongst the earliest remedies for disease and pain, and these must have acted through the mind. The application of this principle to its fullest extent required an age characterised by strong religious belief in the supernatural, with little or no insight into natural science. It has less influence in an age of scepticism and positive enquiry like the present. Still, it must ever remain a potent influence in dealing with certain organisations, and to disregard it, or to neglect to avail oneself of its aid, would be as unwise, from a practical point of view, as it would have been for the Church of Rome, in dealing with certain races and classes of mankind, to have dispensed with its image worship, its music, its pictures, its incense, and all those sensuous attractions of which it has made such effective use, in order to excite and maintain the religious emotions. It was the recognition of this great principle which led to the early association of the art of healing with the priestly office. The power of influencing the physical conditions of the body, through the operations of the mind, was not likely to be overlooked by those whose aim it was to exercise an unlimited sway over human actions. We shall run considerable risk of error and confusion in our results if we neglect this important consideration—the power of grief to produce jaundice, of fright to produce chorea, of suspense to produce polyuria, and the influence of imitation in the production of disease should teach us to be ever on our guard against the disturbing influences of mental states, even in connection with those functions which seem most subservient to physical laws.

I think, then, we may safely conclude that there is no "*general* principle" universally applicable to the treatment of disease, and that there is never likely to be any. But there are many general maxims and rules partially applicable and true, in a greater or less number of instances, and these we shall become acquainted with as we advance in our course, and as the particular instances come under consideration.

The most skilful and successful treatment of disease depends on the application of the principles of common sense, resting on as full and complete a knowledge as is possible of the conditions that exist.

It is certain—I would counsel you to carry this fact in your minds—I say it is certain that the intelligent portion of the public are occasionally in advance of some of us in these common sense matters. A circumstance which arises from the fact that they have no professional prejudices, predispositions or jealousies to influence them. This is especially notable, now and then, in our manner of dealing with new remedies and new methods of treatment. At first they are ignored, then they are sneered at, then they are abused, and all manner of conflicting charges brought against them; then, after a long time, they are examined, and finally, they are accepted.

If you will look into Carlyle's "History of Frederick the Great," you will find that when Frederick visited the Low Countries at the commencement of his reign, he was attacked with quartan ague, which hung about him and tormented him for a long time. The king asked his physicians to give him quinine, which had just then been introduced as a remedy for this disease, but they "shook their heads" and gave him Pyrmont water! At last, getting no better and having important work on hand, the king—who was the incarnation of practical sense, whatever his faults may have been—insisted on having quinine, and he was immediately cured.

Now, gentlemen, that terrible "head shaking" seems to cling to our profession like an inherited vice. You see it is much easier than examination, reflection, and reasoning, and to the very simple it has the semblance of wisdom; but it is not an exercise which I should recommend you to cultivate. When you are tempted that way, let me beg of you to call to mind the great practical Prussian monarch, whose physicians, when he was shivering with his ague fit and begging for quinine, "shook their heads and recommended Pyrmont water!"

Many of our most valuable remedies have passed through this "head shaking" ordeal. The history of one of these is so instructive that it merits being mentioned here. I allude to the bromide of potassium. I need not tell you how indispensable this remedy has now proved to be—what a valuable resource it has proved in many of the most distressing nervous affections. Yet the College of Physicians introduced this drug into the "London Pharmacopœia" of 1836, and after fifteen years, during which they had the opportunity of testing its value in every possible way, in the next "Pharmacopœia" of 1851 they deemed it worthless, and omitted it from the officinal list of remedies!

There are a few not unimportant matters connected with the administration of remedies which I had better allude to now, though we shall probably have opportunities of referring to them again when we are dealing with the treatment of particular maladies. In the first place, you must be prepared to encounter very great differences in the way in which different persons and even different classes of persons are affected by the same remedy. As a general rule, the class of patients we meet with here in our hospitals are less sensitive to the action of medicines than are those whom we meet with in private practice. Many young practitioners get into trouble by forgetting this, and they are surprised to find what decided effects follow, in sensitive organisations, a dose of a drug that they have been accustomed to see given, commonly, in the hospital without any remarkable result. This is often the case with aperient substances generally. With tonics also, and especially with quinine given as a tonic. Some sensitive persons cannot bear the smallest doses of quinine when given as an ordinary tonic; and yet I have seen such persons, when attacked with low forms of disease, take a large quantity of quinine without inconvenience.

Others are intolerant of opium, a moderate dose of morphia producing alarming faintness. But I have found also, in some of these cases, the combination of ammonia with the morphia render it perfectly well borne. Indeed, there are a vast number of small but important details to be learnt in the administration of medicine, and a knowledge of them often makes all the difference between a successful and an unsuccessful practitioner.

You are aware of the remarkable sensitiveness of some patients to iodide of potassium.

Then, again, the variation in the strength of the drugs we use often embarrasses and surprises us. This is especially the case with the vegetable extracts. It is easy to understand how this may occur. The careful or careless selection of the plants from which they are made; the soil in which they have grown; the season, whether a dry or a wet one; the exact period when collected; the care in manufacture; the amount of heat employed, &c., all these circumstances may make a decided difference in the action of an important drug. I have noticed this particularly with extract of stramonium: employing the same dose, I have sometimes observed the drug to be almost inert, and at other times to have an alarming activity. Patients constantly remark on the difference in the effect of the same prescription when compounded at different places.

If you are not aware of these facts, you are liable to

deceive yourselves as to the efficacy or want of efficacy of particular remedies.

Nor is it by any means a matter of indifference in what particular form a remedy is given ; or at what particular time.

For instance, a drug, the influence of which on the constitution it is desired to obtain, but which might prove irritating or nauseating to the stomach, should be given when the stomach is full of food, and it may be enclosed in some soluble capsule or coating, or diffused through some unirritating medium.

Oil of sandal wood is very irritating to the mucous membrane of the stomach, and when incautiously given, will often set up much gastric disturbance ; but if it be diffused through liquorice powder and honey, after the manner of the Confectio Terebinthinæ of the " British Pharmacopœia," it is perfectly well borne.

It is important also to see that your remedy is not administered in an insoluble state. I have recently seen a patient who was very greatly benefited by creasote, taken in the form of pills after every meal. These pills, however, when taken for a recurrence of the symptoms, failed to have the same effect as formerly ; but on examining the evacuations, the pills were found in them unchanged ? English pharmacy has been marked by a want of intelligence, a coarseness, and an adherence to routine altogether discreditable ; and we are now, in consequence, largely using American and French pharmaceutical preparations, which our pharmacists are slowly beginning to imitate.

The time of administering medicines, with regard to food, should also be carefully attended to. Medicines which we wish should be absorbed quickly and act rapidly must not be given when the stomach is full of food, but in a stomach which is nearly or quite empty. So also with medicines which we wish to act on the gastric surface itself, as is often the case when we give bismuth or nitrate of silver.

It is obviously undesirable to give saline, or rapidly acting aperients on a full stomach ; they should be given after digestion is accomplished, so that they may only sweep away the residue of the food. Numerous other considerations of a like kind will occur to us as we advance in our course.

I hope I have said enough on this occasion to convince you that a complete examination, from a clinical point of view, of the various resources at our disposal for the treatment of disease, is a subject which demands and will richly repay your careful attention.

A CASE OF RABIES, WITH REFLECTIONS.

By L. PARKS, A.M., M.D., Harvard University, &c.

March 12th, 1884.—The subject of the following notes was a " dachshund " male, seven-and-a-half years old ; tenderly brought up, always in the same family, from the age of four months ; of an affectionate and gentle disposition ; never allowed to go at large, but in the habit of airing himself daily in a square in front of his master's residence, or in a garden ; not known ever to have even seen a rabid animal.

For several years the dog had been subject to abrasions on his back, arising from his gnawing himself there to relieve itching. This usually happened when he had been over-fed. Some four weeks previous to the above date he had such an abrasion, an inch-and-a-half square (say), which healed after being touched with nitrate of silver, and subsequently smeared with benzoated zinc ointment. Whether the abrasion in this instance was started as usual by the subject himself, or by the bite of a passing mad dog, it is impossible to ascertain.

[An unimportant uncertainty exists as to whether the item now immediately following in the record, belongs to this date or to the morning of the 13th.]

While Mr. X., the owner, was dressing, he heard his dog quarrelling with other dogs in the above-mentioned square. When dressed, Mr. X. went down to the door and drove him into the house. His dachshund, he learned, had been fighting with another dog of his own size. A large colley caught him in the act, got him down on the back, and appeared to throttle him ; the prostrate creature biting, or trying to bite back. The colley was driven off, with nose bloody, by a servant. From which of the combatants the blood came was not known. The dachshund lay motionless for a few seconds, as if dead ; then got up and attacked two other dogs on his way home, driving them off sorry. He had never before been guilty of such behaviour, though he would have an occasional tussle when " badgered " by another of his species. On entering the house he was found to have his nose bloody, and his under lip slightly abraded and swollen. He was put into a tub of warm water and washed, submitting quietly. He ate and drank as usual.

About this date he absented himself for three or four hours—a thing he had almost never done before.

March 13th.—He was let out at 3 p.m. and disappeared. [The record has now become definite as to dates.]

March 14th.—Still absent ; supposed to have been changed in temper, and to be now attracted away, as well, by some female in heat ; was advertised as lost ; was noticed by a friend of his owner to be wandering about the grounds of the barracks, not far from his home.

March 15th.—Returned, voluntarily, at 7.30 a.m., dirty, footsore, and languid ; was followed by an angry woman, who declared him mad, saying he had bitten her dog, and subsequently two others, on his way home—a short distance. A *sergent de ville*, summoned by the woman, also made his appearance, and looked at the animal ; but, in common with the owner, could find no signs of rabies. The dog drank freely ; ate bread soaked in milk reluctantly, swallowing only a few morsels after persuasion. The owner had been for some days considering the expediency of purging the animal on account of the irritable back, and took the opportunity of doing it then. Putting on thick buckskin gloves, and taking the creature between his knees, he held the jaws open while an attendant poured castor oil down the throat. He then led him to a neighbouring stable where he had him shut up in a loose box.

March 16th.—The dog was found by Mr. X. still languid, but he was pleased to go to walk. He was led by a strap a circuit of about a mile. All other dogs were driven away, but one of them slipped up behind, unawares to Mr. X., getting a savage bite on the cheek. Drinks freely, but eats nothing.

March 17th.—Dog visited in the morning—no longer languid—very demonstrative of affection. As on the day before drinks freely, but eats nothing. A woman opens the stable door a little, whereupon the dog forces his way out and rushes for home. Stops in full career to bite a nearly grown pup. On entering the house is attacked by a cat that had kittened two days previously, and gets a bad scratch on the nose which bled freely ; sends the cat off with a bitten and bloody paw ; was led back to the stable.

At 1.30 p.m. the owner, by way of precaution (having reflected somewhat seriously), takes the animal in a *fiacre* to a veterinary surgeon—Monsieur Larrouy. While doing so fancies (not knowing, however, how much to attribute to imagination) a red glare

in the eyes. Monsieur Larrouy does not like the expression of the face, but suspends his diagnosis. He chains the dog in a roomy kennel in a stable, where the solitude is broken by the frequent passage of grooms.

March 18th.—No change noted except a suspicious sound of the bark and cry. Mr. X. speaks to him through the grating of the kennel. The poor animal is delighted, thrusts out his tongue to lick, and when left cries after his master.

March 19th.—At 9 a.m. the surgeon made a *favourable report:* the dog had drunk a half-litre of water at a time, had eaten a little meat, and was quieter.

On this very day, however, a change for the worse took place. He refused to eat or drink, burying the meat given him in the straw. In the night he became violent; bit and swallowed some of his straw; bit at his chain; knawed the door of his kennel around the grating, tearing off strips of the wood; barked or cried with a sound characteristic of rabies—*cri du coq.* Towards morning of the 20th, sunk exhausted and motionless. Monsieur Larrouy found him dead.

A partial autopsy was made. The head was not opened, because the surgeon had no microscope to examine the brain with. The tongue showed three lacerations, attributed to the dog's own teeth; one of them had begun to heal. There was marked redness occupying the pharynx and the larynx, and also extending for several inches down the trachea and the œsophagus. The mucous membrane of the larynx was swollen. A straw was found in the œsophagus, showing that the subject had had the propensity, to which mad dogs are liable, to swallow non-edible substances. There were two ulcerations, each of the size of a pea, at the back of the pharynx.

The stomach had black patches, supposed to be bile, on the mucous membrane, of the size of a bean each, and several in number. The liver was greatly congested, and, I was told, a great quantity of bile escaped from it when it was cut open.

These appearances (which were shown to the writer) were said to be common in mad dogs; and, taken in connection with the history and symptoms, were the basis of an unqualified diagnosis of *rabies.*

We have here an example of the gradual manifestation of the disease, leading from mere suspicion, through uncertainty, to conviction. The police, and also all persons whose dogs were known or supposed to have been bitten by the subject of these notes, were promptly warned. The wounded cat was drowned at once. The veterinary surgeon declared that the bite of this dog was "venomous" at any time during that week preceding his death, when his behaviour was noticed to be strange; and yet the animal drank water freely up to within 24, or at most, 36 hours of the fatal event. Hence, if the veterinary surgeon's statement be correct, we derive the important lesson, that *a dog may have rabies upon him, and his bite be communicative of the disease, all the while that he is freely drinking water.*

Did the rabies arise in this dog *de novo*, or had he received a *rabid bite?*

Two or three times a year it is given out that a mad dog has been seen in this place; and the police, during some four weeks, lasso and sequester dogs going at large. Nothing of the kind had occurred for three months or more before the subject of the above notes showed his first symptoms. But this does not answer the question, as will appear from the following statement:—

The autopsy of the dog under consideration was witnessed, and the morbid appearances, with the conclusions drawn from them, corroborated by a gentleman of large experience in rabies—Mr. W. C. Standish—a former master of foxhounds in England. It was about 1864 that some of Mr. Standish's hounds became mad. They were killed. Later on, others of the pack became mad, and were killed. This process was repeated again and again, till the losses in value of dogs amounted to about one thousand pounds sterling. He informs me that "every care was taken from the commencement of the outbreak to prevent the disease spreading, the hounds being chained up in separate kennels and watched; but the disease kept showing itself up to eight, ten, and even fifteen months."

Two specimens of the infected hounds were sent to the leading veterinary surgeons of the day in London; one specimen being of the violent kind, the other showing the "dumb-madness," so-called. They were both pronounced indubitable cases of the disease.

A question was put by Mr. Standish as to how long a time must elapse, after a rabid bite, before a dog, showing none of the symptoms, might be considered safe from its effects? The answer of the authorities on canine affections was "eight months." Now Mr. Standish isolated one of his hounds that had been bitten by another that was rabid, and kept the former *fifteen months*, at the end of which time the animal under observation went *mad.*

I may mention, by way of parenthesis, that some time subsequently to the events just mentioned, the friend of another master of fox hounds, at a distance, wrote to Mr. Standish that rabies had got into the pack, and asked advice as to what he had best do. Mr. Standish replied that it would prove the cheapest in the long run to exterminate the whole of them at once, even if the proprietor had to purchase anew. The pack was accordingly destroyed, but it was replaced by gratuitous contributions from different packs—five from this—ten from that—and so on; Mr. Standish, at whose instance the general contribution was made, furnishing his quota.

To resume. The above facts warrant the following inferences, viz.: First, it is within the bounds of possibility that Mr. X's dog had been bitten by a mad animal *as much as fifteen months* previously to the outbreak of the symptoms in the former; and, therefore, the question whether the disease had arisen *de novo* in this case is transferred into the region of conjecture. Secondly, the most obvious way to stamp out rabies from an infected district—short of general extermination—would be a regulation strictly enforced, and continued, without interruption, for a long period, to impound all dogs not *effectually* muzzled, when away from home, and whether led or not. At short intervals, the animals thus impounded, if not properly taken charge of by their owners, might as well be destroyed. As to what precise limit of time should be applied to this regulation, the writer has not as yet formed an opinion, except that it should not be less than *fifteen months* (the incubation of hydrophobia in man being sometimes much longer than that). Thirdly, we should be chary of handling dogs at all indisposed (even though they do not refuse to drink) until the nature of their disorder be fully declared. Finally, the case above reported illustrates an important maxim—avoid killing a dog suspected of madness until the diagnosis is clearly made out. Isolate him! If, then, he prove to be mad, your warnings to those whose animals may have been bitten by him, will carry force; and, moreover, will shift the responsibility upon those owners. If, on the other hand, the peculiarities which have brought your dog into suspicion should, happily, develop into some other form than rabies, or subside, all apprehensions of his having transmitted such a terrible disease to man or beast are completely set at rest.

It would seem unnecessary to add that every dog, or other brute, that has been bitten by a rabid animal should (unless carefully isolated for purpose of

experiment) be immediately put to death, before he has a chance of contaminating others, and that on the score of both principle and prudence. Yet, strange to say, this precaution is not always taken.

Pau, France, May 5, 1884.

AN EXAMINATION OF THE THEORY OF AËRIAL DISSEMINATION OF SMALL-POX INFECTION.

By MONTAGUE D. MAKUNA,
Late Medical Superintendent of Fulham Small-pox Hospital.

The object of this paper is to demonstrate how the infection of small-pox is disseminated by ordinary channels, and thus prove that the theory of aërial dissemination of small-pox infection at long distances, as enunciated by Mr. W. H. Power, of the Local Government Board, in his Report "On the influence of Fulham Small-pox Hospital on the neighbourhood surrounding it," is purely speculative. He conducted his investigations in January, February, and March, 1881, and because he could not ascertain the sources of infection of cases in the districts of Kensington, Fulham, and Chelsea, he started this theory, and by an elaborate series of tables he has tried to make it applicable to the years 1877, 1878, 1879 and 1880. The following history that I have collected during these years will prove that his data are erroneous, inasmuch as he has not known the facts and history of the local outbreaks of the disease, the mismanagement of the institution, overcrowding, and other conditions of the population in the locality. In the parish of Fulham, according to the Census of 1871, there were 4·9 persons to a house; while, according to 1881, there are 7·3. Nearly all the houses in Fulham, within half a mile of the hospital, are of recent growth, and inhabited by labouring and artizan classes, migrating from the country and from parish to parish, according to the activity of trade and agriculture, extension of railway works and manufactures in the locality. They come, unguarded by vaccination or re-vaccination, live for a short time in infected haunts, and thus fall a prey to the unknown foe. In West Brompton, within half a mile of the hospital, the building operations have also been active. The houses in Adrian Terrace and Ifield Road (it is one long street, and both the names are used indiscriminately), where the disease has been most prevalent, built for a superior class, have come to be occupied by the artizan and labouring classes. These streets are overcrowded, the intercommunication between the houses is very free, and the population ever changing. They form the borderland of the central circle of Mr. Power's "special area." Higher up are houses in Coleherne Road, Westgate Terrace, Redcliffe Gardens and Square, and the turnings through them, Tregunter Road, Cathcart Road, and Fawcett Street. Still higher up are the Boltons and Onslow Gardens. On leaving the area of the central circle, we find the houses are occupied by superior classes, and in the area between half to one mile distant from the hospital some of the highest and noblest live. When cases of small-pox do occur in their houses, they are chiefly among servants who have in considerable numbers contracted it by visiting their friends in haunts of infection. It would be monstrous to draw calculations from these houses, the number of which increases the further we go from the hospital, and consequently gives a higher average on the poorer houses in Chelsea and Fulham in the same "special area round the hospital," and thus add an argument to the speculation that the vitality of the infection diminishes the further we recede from the hospital. There are no houses within a quarter-mile of the hospital in Chelsea. Beyond this are those in Fulham Road, King's Road, Church Street, and intersecting streets. These main streets, especially Fulham Road, which is a boundary line between Kensington and Chelsea, are composed of shops. The people in West Brompton, especially the poorer classes, deal with these shops. Had one cared to investigate the prevalence of the disease in these shop-houses in Chelsea, where there was no isolation of the sick, and everybody went in and out unguarded, sufficient cause of infection would have been found. There are numerous small laundries in Chelsea where infected clothing was washed; the workers took small-pox and continued at their occupation. Chelsea is notorious for infected haunts, and its old houses are quite unlike the mansions in Brompton, or the cottages in Fulham. All who know the different characteristics of Mr. Power's "special area" will bear me witness when I say that to draw averages on houses in this area, counting them as so many units, is like buying and selling books by weight. It would be an egregious blunder to lose sight of these facts and circumstances in investigating the origin and spread of an epidemic disease midst such a mixed population. An epidemic disease, when once introduced among the poorer classes, becomes endemic, gives rise to so-called sporadic cases, which, under favourable circumstances, lead to fresh outbreaks of epidemics time after time. Again, infection, unless it is directly attacked, retains its vitality for propagation for years, and harbours in nooks and corners, adhering to many household articles, furniture, clothing, &c., with a tenacity scarcely conceivable, but which has been repeatedly demonstrated by investigators in all parts of the world. The most systematic and scientific disinfection, and renewing of hospital wards, ships, barracks, huts, houses, and their belongings, have been futile in many cases. Bearing this fact in my mind, I for one cannot realise the idea that the dwellings of the poor of London can be thoroughly disinfected after the occurrence of infectious cases as is done at the present day by the local sanitary authorities. When I was at Fulham Hospital I noted the fact of cases occurring in the same house time after time, and year after year, the fresh victims in many cases being quite unaware of the previous cases.

Small-pox is, socially speaking, a misfortune, because no sooner is its existence in a house known than its inmates are thrown out of employment and shopkeepers lose their trade. Under these circumstances, concealment of cases, even among well-to-do classes, is frequent, if not discouraged as it should be by medical men, is connived by authorities among their friends and the death certificates falsified. We know more of these practices in poorer localities, because their means of isolation and concealment are few, their methods of evading all enquiry less refined, and through many causes the tendency of the disease to spread among their class more general. I have known many well-to-do people leave town to shake off infection and the houses either changed altogether or renewed. Their servants, as a rule, being not re-vaccinated, take the disease, and are either sent home ill or removed to the hospital.

I have sometimes found that when all the efforts of the sanitary authorities to get at the sources of infection were baffled through the disingenuity of the people, the truth was revealed to me through children in the hospital on the offer of small enticements. Add to this concealment of cases or facts bearing on the primary cases, the numerous cases of varioloid among the vaccinated adults at work and children at school,

besides the treatment of such cases in public dispensaries and out-door departments of hospitals for other affections, and we need not have recourse to hypothesis to account for the mischief. Taking all these and many other circumstances into consideration, I contend that the infection of small-pox in certain localities in London is ever existent, a thorough and systematic disinfection has been rendered impracticable, and the explanation of its spread through air is a confession of our inability to cope with the disease, and of our iguorance of its immediate sources. I do not deny the dissemination of contagion through air, the very word *infection* means it, but it is difficult to conceive atmosphere as a mere carrier of infection at long distances. Have heat, light, moisture, ozone, and other constituents of the air no influence on the economy of animal and vegetable life?

The conditions that favour the spread of small-pox are the absence of re-vaccination among adults, non-vaccination at all ages, overcrowding, malnutrition of the body, accumulation of filth in clothing and linen, defective sanitation in houses, free intercourse among houses and families, children playing together in streets. All these causes abound among poor people. With these facts before me I have felt surprised, not because I have not been able to account for the cases that came to my knowledge, but because of the repeated escapes of so many people in an infected locality. Mr. Power began his enquiry nearly four years after the establishment of Fulham Hospital, surrounded by such a locality, and his Report gives us no idea of the condition of the houses in the *special area* forming a circle round the hospital within the radius of a mile, which includes many magnificent and palatial residences in Brompton as well as wretched hovels in Fulham, and old and inferior houses in Chelsea, upon which he calculates averages, taking houses as so many units, irrespective of all other conditions, to support his dazzling theory. It was not possible that he could study the locality in a few weeks. Had he confined himself to the explanation of a few cases he enquired into I should not have felt it necessary to criticise his Report. But by the addition of a series of tables and maps, professing to explain the outbreaks of the disease in previous years by mere calculations and averages, he has tried to harmonise facts in a manner contrary to my experience as the Medical Officer of the Fulham Small-pox Hospital.

With this introduction, I shall narrate the history of the hospital, and the incidence of the disease in Kensington, Fulham, and Chelsea. For the sake of convenience I shall adopt the same terms used by Mr. Power for defining several areas.

Special Area (S. A.,) means the area included in a circle with a mile radius, having the hospital for its centre.

Outside Special Area (O. S. A.,) area beyond the special area.

Central Circle (C. C.,) means the area included in a circle with quarter mile radius, with the hospital for its centre.

Half Mile Ring (½ mile R.,) means the area between the central circle and a circle described, with a half mile radius.

Three Quarter Mile Ring (¾ mile R.,) means the area between ½ mile R. and a circle described with three quarter mile radius.

One Mile Ring (1 mile R.,) means the area between ¾ mile R., and a circle described with one mile radius.

Small-pox became epidemic in London in the summer of 1876, when the Stockwell Small-pox Hospital was the only one available for the metropolis. Very soon Homerton was opened, and it was followed in the November of the same year by Hampstead. In March, 1877, Deptford and Fulham Hospitals were established. Hence it becomes necessary to know whether small-pox was existent in the locality before the opening of the Fulham Hospital, on the 10th of March, 1877. We find from the returns of the Metropolitan Asylums Board, that there were 31 admissions from Fulham, 50 from Chelsea, and 115 from Kensington at other small-pox hospitals up to the latter date. During the same period the Highgate Small-pox Hospital had admitted 24 from Kensington, of which seven were from Brompton, 30 from Fulham Union, of which fourteen were from Fulham Parish, and eight from Chelsea. During the year 1876, there were 736 deaths from small-pox in London, of which ten were in Kensington, three in Fulham, and four in Chelsea, while the Metropolitan Asylums Board Hospitals had admitted 2,120 cases of small-pox. This conclusively proves that the admissions to these institutions does not mean incidence of the disease in the metropolis. A death certificate sometimes reveals an outbreak in a locality of which the sanitary authorities had no knowledge. Many mild cases are treated, as cases of chicken-pox, measles, skin affections, &c. Dr. Dudfield informs us, in his annual report for 1876, that during the year there were about 30 cases treated at home in Kensington. He had traced the spread of the disease through laundries, and among the victims were several ironers, manglers, and laundresses. Another feature noticed by him was, that in Brompton the victims were mostly adults, many being domestics, while in the Kensington Town Sub-district they were of all ages. The same peculiarities had been recorded by him in the epidemic of 1871–72, and they go to prove that the sources of infection in Brompton must be outside the district. On my visits to the locality in January and February, 1877, I was informed of nearly a dozen cases of small-pox in the Central Circle and ½ mile Ring. It is evident, therefore, that the sources of infection were rapidly multiplying in the locality, and especially in the small shop-houses and laundries, with the rise of the epidemic in the metropolis before the hospital was opened.

The Fulham Small-pox Hospital was opened on March 10th, 1877, and during the first week it received convalescents, and during the second week some acute cases, the admissions being confined to males over 7 years of age. The children and females were either treated at home or taken to other hospitals. This arrangement was unavoidable, and it would have been well had the managers not opened this hospital in its then incomplete state, and thus saved one blot on the management. The southern wing, with five wards, was barely ready to receive patients. The administrative block and the northern wing were fenced off to prevent the workmen and patients mixing together. Some workmen were re-vaccinated and were engaged to finish the kitchen and laundry, which were also incomplete. A room to keep disinfected clothing had been forgotten; a wooden shed with venetian walls was soon erected as a substitute. The disinfecting chamber was put up in the engineer's workshop, as no provision was made for it. The mortuary was not ready for months, and coffins were first used to remove the dead bodies from the wards, and piled up one on the other in the room. Out of the five wards of the southern wing, one was used as a store-room and mess-room for male attendants, and another as their dormitory. The medical officer, assistant medical officer, and the steward had each a ward scullery for their residence, offices, and dispensary. The attendants were males and their wives. Some of them slept outside with their families, and had their lodgings generally in Walham Green. Most of the workers in the kitchen and laundry slept outside. The washing of the staff was sent out for weeks, while the patients' clothing and bed linen were left to accumulate for days, in

expectation of the completion of the laundry. A porter's lodge had not yet been provided, and a temporary gate was put up nearest the southern wing by breaking through the boundary wall. The reception-room was used as the gate porter's lodging-room, admission and discharge room for the patients. The non-resident staff left in the evening, to return in the morning. The resident went out every evening, and half-day once a week. Cases of small-pox occurred in their families and among their friends. They were either treated at home or sent to hospitals. The administrative block and northern wing were ready in May. The former building was unfit for its purpose, as it was wanting in rooms of every description. There was no provision for a dispensary: it was fitted up in a small corner room. There was no bath-room for superior officers, and only one bath for the rest of the staff, both males and females. There was no provision for the assistant medical officer. The steward was expected to reside outside. There was no coal-cellar for the whole of the block, excepting one for the apparatus for hot-water pipes. Only one scullery for the whole block. The washing of plates, &c., was all done in the kitchen. The sleeping accommodation for the staff was insufficient. Now and then two girls have slept in one bed, and in rooms too small for one. Two wards had to be used as dormitories, one for the males and the other for the females. There was no adequate provision to keep sexes among servants separate, and all manner of dereliction of duties had to be excused. The rooms were all poorly and badly furnished. The surface drainage, roads, and paths in the grounds were left unfinished by the contractors, and the passengers and ambulances had to wade through mud and stones. The firegrates and scullery fittings of the wards were condemned before they were used, and had to be gradually replaced and deficiencies gradually supplied. The washing of the staff was at first done with that of the patients, and after many remonstrances a sort of a separate provision was made. The drying horses were few, and a portion of the grounds was set apart with wooden poles and iron cords to dry washed clothing and linen in the open air. The walls of the wards and the rooms in the administrative block were left bare and dirty, as workmen left them, without paper, paint, or limewash, till the year 1880. The porter's lodge was not ready, and the proper gate was not in use till about the middle of the year 1879. Many parcels and presents for the patients were brought in by the traders' carts, nurses, &c., who visited the patients' friends at home, and I had to exert a most rigid supervision to keep many improper things out of the wards. The nurses did their knitting and sewing in the wards, and carried the work outside in handbags, which were every now and then turned out of wards by me. Although they changed their dresses when going out, they always passed along the corridors, and sometimes spent hours in out-door garments in the ward sculleries and receiving-rooms when tired of walking the streets. They had no kind of recreation or sitting-room except the mess-room, which was also their pantry. Reports, reprimands, discharges of servants, did them no good, and the institution every now and then lost a good servant. Numerous complaints of the spread of the disease from the hospital were made, and they were explained away in one way or another. If the complaint was that the members of the staff slept outside, they would reduce the staff and adopt some means for a time to report that no one slept outside. If the complaint was that the refuse of food caused the spread, they would stop it and report none left the premises. If the complaint was that poultices, rags, &c., that went out of wards with the dust, caused the disease, they would issue an order to burn them and report it as such. When cases of small-pox occurred amongst friends and relations of the staff, they would suddenly disappear before they came to light or could be investigated. Many patients, and male and female servants married away from the hospital.

In the Hampstead Hospital trial it was proved in court that the hospital was mismanaged as far as the safety of the public outside was concerned. Had they taken advantage of their experience, done away with many abuses, and investigated the local outbreaks, there would not have been any necessity for Mr. Power's Report, nor for pleading through a Royal Commission for their errors, nor for a compromise with the opposite party at the expense of the public purse, and acceptance of the dogma of aërial infection. Had these allegations of mine been known and considered by Mr. Power, he would not have been led astray. Let me ask those who adopt the theory of aërial infection, whether we are to forget all the foregoing facts which point to so many ways of the spread, and for a while roam in the region of fancy and philosophy to search after something new to pacify the public mind?

I shall now make a detailed statement of the incidence of the locality in Kensington, Chelsea, and Fulham for the years 1877, 1878, 1879 and 1880, which will show that Mr. Power's figures of the incidence are inaccurate, and his method of counting of houses in the circles and rings of the special area misleading.

(*To be continued.*)

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CANCRUM ORIS—SPREAD OF THE DISEASE—ABSENCE OF MICRO-ORGANISMS IN THE BLOOD—DEATH—AUTOPSY.

(Under the care of Mr. CHRISTOPHER HEATH.)

(We are indebted to Mr. VICTOR HORSLEY, B.S., F.R.C.S., for these notes.)

CHARLES L., aged 12 years, was admitted into the hospital on January 31st. He had first noticed a blackish lump on the right side of the mouth, close to the bicuspid tooth a week ago. This has gradually spread. He has had a disagreeable taste in his mouth, and the odour from the lump has been very fetid. Four days ago he went to see a medical man. He has no idea what started the disease.

On admission, the gum on the right side of the lower jaw was spongy and ulcerated, and opposite the first molar it was gangrenous, and covered with a greyish slough, more extensive on the inner than the outer side of the gum; it did not extend beyond the reflection of the mucous membrane from the jaw, on to the tongue: several of the teeth were loose, and painful when pressed upon. Strong nitric acid was applied, the patient being under chloroform.

February 1st.—The cauterised part had assumed a brownish-yellow colour, with very little redness or swelling around: early in the day there was little or no pain, but towards evening pain came on, and opium had to be given internally, while glycerine and belladonna were applied externally.

February 2nd.—The lower lip was swollen, and the gum about the incisor teeth dark red, and covered with

a greyish slough: the tongue remained healthy. The glands, both in front of and behind the sterno-mastoid muscles, very tender.

By February 7th, the ulcer had extended considerably; it was in a sloughy condition, and its base very tender. The under-surface of the tongue and the mucous membrane of the cheek were now implicated. The cervical glands much swollen and very tender; the temperature ranges between 101° and 103·8° F. He was fed with a tube. Mr. Heath had the patient put under chloroform in the afternoon, and carefully scraped the surface of the ulcer with a sharp spoon, and then applied the actual cautery, the mouth being afterwards washed out with glycerine and carbolic solution.

On February 10th, the sloughing was found to be again extending; he had had his mouth swabbed out at intervals with glycerine of carbolic acid, and had used a gargle of chlorate of potash. There was noticed yesterday a copper-coloured papular rash on both buttocks, and on the lower part of the legs. His chest was carefully examined, but beyond a little rhonchus, nothing abnormal was found.

February 12th.—The sloughing in the mouth was extending, his tongue was raised, and pushed backwards and upwards, and was rather swollen.

February 15th.—The boy begins to be very anæmic. His blood was examined for organisms; but none were found. On counting the corpuscles there seemed to be a diminution in the number, both of the white and the red.

February 16th.—Condition remained about the same. The blood was again examined; there was an excess of white corpuscles, many of which were undergoing fatty degeneration; some of the red discs were breaking down; the blood when fresh drawn had a thin watery appearance; there were still no organisms.

February 18th.—The patient passed a restless night; he was constantly crying out, refused nourishment; now he lies in a semi-conscious condition, very much exhausted. The lips are covered with dark sordes. The blood is still more watery in appearance, and coagulates feebly. In ten squares of the hæmocytometer there were only forty-five red and eight white corpuscles. Under the microscope, no organisms were detected; the white corpuscles appeared larger than normal, some showed amœboid movements, and some granular fatty degeneration. Death.

Autopsy by Mr. Horsley:—The skin is dusky; rash has disappeared; there is a hard thickening on the right side, extending from the angle to just beyond the symphysis of the lower jaw. On cutting through the tissues in front of the neck, they are found to be œdematous as low as the upper third of the pectoralis major muscle. The gangrene has reached the corium at a point opposite the middle of the body of the lower jaw. On reflecting the skin, the right cheek is found to be destroyed for its anterior and lower half. The buccinator muscle is converted into a foul, dark grey slough, the fat covering it is infiltrated and œdematous, and is hard on section; it, however, still preserves its yellow-white appearance. This infiltration of the fat extends for about one inch beyond the margin of the slough. On exposing the jaw, the right half is found to be bared as far as the tip of the coronoid process, the attachment of the temporal muscle separating from it, owing to the suppuration, which has reached back to the pterygoid region. Posteriorly, the limit of exposed bone corresponds to the line of attachment of the masseter and internal pterygoid muscles respectively. Below, it reaches to the lower border of the body both in front and behind. The whole of the alveolar border is blackened, more especially along the canine and incisor sockets. The mucous membrane, where ulcerated, is covered with a greyish-yellow slough, and is sharply marked off from the remainder by a hyperæmic line of demarcation. The sloughing process extends into the base of the tongue, destroying the frænum, forming a polypoid mass of granulations and slough; and forcing the tongue upwards and backwards. The rest of the mucous membrane of the mouth appears to be perfectly healthy; the œdema which is noticed as extending in front of the hyperæmic border in the loose connective tissues of the cheek is absent from the mucous membrane of the mouth. The lymphatic glands on both sides of the neck are enlarged, but more especially on the right side, some portions appearing intensely congested, others, especially the medullary portion, of a pale white colour.

The pleuræ contain about three ounces each of pale straw-coloured serum, which coagulates into a firm jelly on the addition of blood; there are a few petechiæ on the right side. The peritonæum is apparently normal. Parietal pericardium shows a few petechiæ The heart cavities contain a small quantity of fluid blood. The visceral layer of the pericardium on the anterior surface of the right ventricle shows a mass of petechiæ along the distribution of the left coronary artery: a similar condition is found on the posterior surface. The endocardium is rather bloodstained: a few petechiæ are found on the septum. The petechiæ in places extend into the muscular substance for a distance of about 3 mm. The heart muscle is everywhere pale, but preserves its normal density. Valves all healthy; aorta healthy. Lungs: Right. The outer and under surface of the upper lobe is covered with recent lymph, and there are small patches scattered about elsewhere: there are also a few petechiæ here and there. The bronchial mucous membrane is perfectly normal, except in one branch in the upper lobe, where it is congested in places. The upper lobe is œdematous, airless, and of a dark red colour, showing on section broncho-pneumonic patches; middle lobe presents small areas here and there of congestion, is otherwise normal; lower lobe slightly congested; left lung much in the same condition; none of these congested areas are more than 3 mm. in diameter; liver is normal in shape, but increased in size; it has a homogeneous, ground-glass appearance; bile ducts are distended. The spleen is slightly enlarged, but not otherwise markedly changed. Intestines: In the cæcum there are two small ulcers, each surrounded by a hyperæmic border. The right kidney presents a few petechiæ beneath the capsule; the organ on section is pale and bloodless; left kidney on section is found in the whole of its depth, to be of a pale yellowish-white colour, surrounded by a congested border; both kidneys are normal in size: nothing noteworthy in the intestines, or bladder, or pancreas. On the under surface of the dura mater, covering the posterior half of the left inferior frontal convolution, and the lower half of the fissure of Rolando, there is an effusion of blood, and beneath this, the whole of this side of the vertex is sprinkled over with numerous hæmorrhages, especially along the line of the intra-parietal sulcus. These hæmorrhages run in the line of the cerebral veins. On the right side there is a similar patch of hæmorrhage over the posterior half of the middle frontal convolution; the rest of the dura mater covering the vertex is similarly sprinkled with small hæmorrhages. The arachnoid and pia mater are infiltrated and œdematous, and there are also scattered about small hæmorrhages.

Remarks by Mr. Victor Horsley:—In the foregoing case there are two points of interest. (1) The continuance of the disease, and (2) the immediate cause of death. As for the first it may be fairly assumed, in view of the most recent observations of the necrosis of tissues following the growth of organisms in the same, that the cauterising agents failed to reach the foci of

development of the parasite, and that the disease simply spread unchecked. Microscopically, however, the spreading border of the gangrene simply exhibits œdema, and infiltration of the loose tissues with leucocytes, and I have only been able to demonstrate the existence of bacterium termo in those parts which were putrid during life. (The *post-mortem* was performed within half-an-hour after death, and the tissues were put into absolute alcohol.) As negative evidence this fact is of course worth very little, and it is only mentioned here in the hope that other cases will be examined in the same direction.

The cause of death appears to have been a simple case of sapræmia, the excessively foul condition of the ulcerated mouth affording constant and large supplies of sepsin, which was swallowed by the patient in considerable quantity, even soon after his admission. The certain absence of organisms in the blood during life, and the whole *post-mortem* appearances point in the same direction. In connection with the latter it must be remarked that the ulceration of the cæcum is a very slight representative lesion, when the results of experimental sapræmia are remembered.

Medical Times and Gazette.

SATURDAY, MAY 17, 1884.

At the meeting of the Ophthalmological Society on Thursday se'nnight, a good deal of business was done. There were not so many patients as we have sometimes seen, but there were some very good drawings on view. Amongst them were two of Mr. Nettleship's, one of central guttate choroiditis, the other of peculiar lines in the choroid, the exact interpretation of which might be open to some doubt. Mr. Morton showed a drawing of a hæmorrhage at the macula, dependent on gout, the chief interest being the shape of the hæmorrhage, Mr. Milles recorded a nævus of the choroid, which, we believe, has not hitherto been subjected to the proof of a microscopical examination. Dr. Stephen Mackenzie added another to his list of cases of tortuous vessels in the retina.

Dr. Fitzgerald described some cases of acute spasm of accommodation, and Mr. Higgens summed up his experiences in the operation for extraction of cataract on 200 cases, since his paper on the same subject was read a few years ago at the Royal Medical and Chirurgical Society. The paper which attracted most interest, however, was the joint production of Dr. James Anderson and Mr. Gunn, on a case of alleged uniocular diplopia. The paper itself deserves the highest praise, for it was very thoughtful and thoroughly impartial. As to the general question whether such a disorder can be *bonâ-fide*, we shall probably express the opinions of the majority when we say that the natural attitude of ninety-nine men out of a hundred would be one of absolute incredulity. We think, however, that it is only fair to the authors of this paper and of previous communications on this subject to the Society, that so active a form of disbelief should be exchanged for some more passive scepticism. The affection has not yet proved its right to official recognition, but is quite entitled to claim a fair hearing.

The relative merits of the various modes of treating fractured patella were once more discussed at the meeting of the Clinical Society, on Friday last. True to a pledge which he had given at a meeting of the Society six months ago, Mr. Christopher Heath produced for inspection a case which he had then treated by the immediate application of a plaster of Paris bandage. Mr. Henry Morris, who had been called upon to treat a case upon the same day, also produced his patient. In both cases firm fibrous union had taken place, and in both, the patients had been able to walk freely with artificial support to the knee-joints. These results, admirable as they are at the present time, can hardly be reckoned upon as the ultimate outcome of the treatment. The experience of all surgeons would seem to agree that some further separation of the fragments is sure to follow upon fibrous union, as soon as artificial support is dispensed with, and hence no close union, other than that by true bone, can be looked upon as a permanent condition. True bony union, however, is only to be obtained by means of the operation of wiring, and a very general opinion seems to prevail that this operation is at present only justifiable in very skilful hands, as, *e.g.*, in those of its originator, Sir Joseph Lister. (In another column we have given an account of some foreign views with regard to the treatment of this accident.)

A case of abdominal section, undertaken for the relief of internal strangulation of bowel, was read by Mr. H. H. Clutton. The author was deservedly congratulated, not only upon its triumphantly successful issue, but upon the skill displayed in dealing with a case of extreme difficulty. With each successive victory over the dangers attendant upon intra-abdominal surgery, confidence becomes proportionately increased, and we would cordially re-echo the hope expressed by many of the speakers in the subsequent debate, that operations for the relief of internal herniæ may be placed upon a similar footing to those for the commoner forms of external rupture. To delay an inevitable operation, when the benefit of the doubt is so rarely found to be a benefit to the patient, seems somewhat irrational, and has long since been abandoned in the simpler class of cases.

An interesting case of old-standing hydrocephalus, leading to insanity and death, was read by Dr. Whipham, and two remarkable cases of rupture of the brachial plexus were exhibited by Mr. C. J. Symonds. Towards the close of the meeting attention was called by the President to the number of papers still remaining unread on the eve of the last meeting of the session. No definite expression of opinion was elicited on his proposal to hold an additional meeting, and the question will be decided at the next meeting, on May 23rd. This practice and that of indefinitely extending the time of individual meetings, is one which has

grown of late in other societies, as well as in that presided over by Sir Andrew Clark. The appetite for work displayed by the attendant members is in the highest degree satisfactory; but the custom is in itself unbusiness-like and inconvenient, and is one which we believe but few members are willing to see extended.

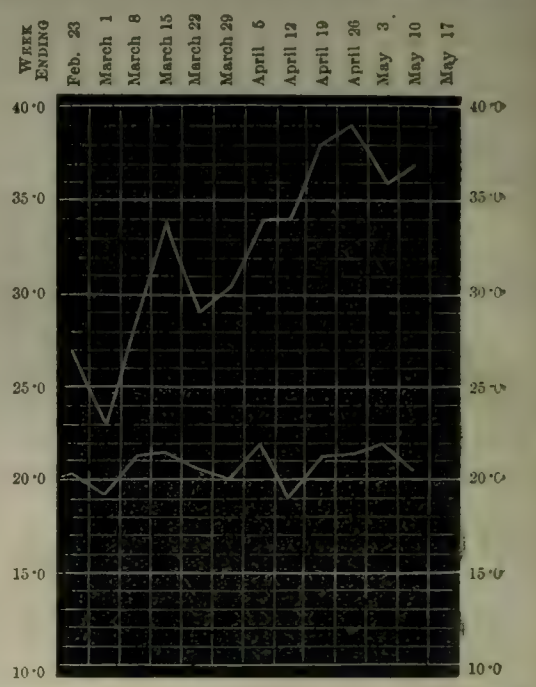
At the meeting of the Royal Medical and Chirurgical Society on Tuesday last, two papers were read. That by Mr. Gant, on the removal of a pelvic tumour, not offering much scope for discussion, was soon disposed of. The paper by Dr. George Harley, on an easy and safe method of sounding for impacted gall-stones, was, however, vigorously discussed. The boldness and originality of Dr. Harley's procedure were admitted, but it was pointed out that the argument that most organs of the body have been punctured with a fine exploring needle without ill result, is not a very strong one in favour of a further application of this practice.

The third General Meeting of The Hospitals Association will be held at No. 11, Chandos Street, Cavendish Square, W., on Wednesday, the 21st May, 1884, at 8 p.m., when Mr. Henry C. Burdett will read a paper entitled, "How can the Hospital Sunday and Saturday Funds be made more useful to the Hospitals?"

We may hope that the action of Friday last will be allowed to close the series of persecutions to which Messrs. Bower and Keates have been subjected. The issue was as satisfactory to the defendants as, under the circumstances, it could be, and that without the necessity for placing in the witness-box several eminent medical authorities who were ready to give evidence for the defence. Some compassion may be extended to the father of the dead child, who has evidently become a prey to the haschisch of litigation, and is bent on running a-muck, regardless of consequences to himself. It is to be hoped, however, that his career in the law courts will at length be checked, or at any rate that his attacks may be directed in another quarter. Messrs. Bower and Keates have been sufferers without a parallel in the history of medical prosecutions.

The Inaugural Dinner of the Oxford Graduates Medical Club will take place on Thursday, 22nd inst., at 7 p.m. The chair will be taken by Dr. Fincham, and a large gathering is expected. It is hoped that any gentlemen who have not received notices of the Club's formation, will at once communicate with the Secretaries, Dr. Samuel West, or Mr. John H. Morgan.

The most significant fact in the Registrar General's weekly return is the increase of the small-pox epidemic. During the week the number of cases in hospital rose from 502 to 737, and the fatal cases numbered nineteen. We are evidently in for a considerable epidemic. The number of deaths from other zymotic diseases still continued high, viz., 264, or 57 above the ten years' average. The chief culprits were still measles and whooping cough, which represented respectively a mortality of 93 and 119. In spite of the excessive number



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the first six weeks of the present quarter.

of zymotic fatalities, the general death-rate fell to 20·6 per 1,000, having been, as may be seen from the chart, 22 in the preceding week. The deaths from respiratory diseases, viz., 326, were six below the average, and 32 below the previous return.

The return of Dr. Koch and his fellow-labourers, Dr. Gaffky and Dr. Fischer has been celebrated during the past week in Berlin with the enthusiasm which their recent labours in Egypt and India so fully justify. Whatever be the ultimate result of their researches upon the progress of cholera in either country, there can be but one opinion amongst all scientific workers in the four quarters of the globe as to the vigour, perseverance, and honesty of purpose which have characterised their endeavours to unravel the tangled skein of causes which combine to originate and maintain the ravages of epidemic disease in the East. The congratulations of their own countrymen, from the veteran Emperor downwards, have been lavishly bestowed, and no one in our own or any other nation will begrudge them the honours which they have reaped. Good work is nowhere more thoroughly appreciated than in England, but it is not the British custom to praise the workman before his work is concluded, and hence no public expression of gratitude has as yet found its way to the distinguished leader of the German Cholera Commission.

Dr. Koch and his comrades, however, are to receive something more than barren praise. A proposal has been laid before the German Reichstag to divide

amongst them the sum of 135,000 marks, or 6,750*l.*, 5,000*l.* of which will be Dr. Koch's share. The Ministry have decided that money down will meet the conditions of the case better than pensions. It may prove, they think, that the health of the members of the Commission has suffered, and that their lives have been shortened by their stay in a tropical climate, in which case a life pension would not be an equitable reward. The German government, not having a crowd of old Indians on their hands, evidently overrate the probable effects on health of a summer spent in Alexandria, and a winter in Calcutta. Still, their treatment of their scientific workers demands our admiration, and—what it will not get—our imitation.

Herr von Bötticher, in proposing the bestowal of the honorarium, spoke in very graceful terms of the services of the Commission. "It was entirely owing to Dr. Koch's readiness to place himself at their disposal, that the Government were able to send out the Commission so quickly." "The reports of the leader of the Commission had been published at once, on account of the importance and generally interesting nature of the results they contained, and the House would have recognised with pleasure, in common with the whole scientific world, and all sections of the public who were interested in the sanitary welfare of the State, how thoroughly, how competently, and how carefully the investigations of the Commission had been carried out. They might hope that when the results of these investigations had been scientifically worked out, they would succeed in arresting the spread of this destructive plague in their country. And if they ever should arrive at that result, it would be to these men, who had sought, in a fearless spirit of self-sacrifice, self-denial, and disregard of death, to solve the problem placed before them, that their thanks would be due." The proposal was carried by acclamation on Tuesday, Professor Virchow adding his eloquent testimony to the merits of the Commissioners.

The discovery of micro-organisms in connection with infectious disease is an affair of yesterday, but the gradual extinction of epidemic disease has been steadily progressing for centuries; and although the more complete knowledge of the laws which govern them must aid in their more rapid extermination, still the fact is as obvious now as formerly, that true progress lies in the improvement of the hygienic conditions under which crowded populations have to live, rather than in the destruction of this or that bacillus. The teachings of previous experience are more powerful even than the startling revelations of the present. Notwithstanding the swarms of micro-organisms with which our forefathers must have been infested, we are somehow able to show a cleaner bill of health for a vastly increased population.

The hygienic section of the Viennese Medical "Doctoren-Collegium" has lately issued an elaborate series of regulations, framed with the view of stamping out the infectious disease generally known as tubercular phthisis, and familiarly termed in the Austrian capital, from its local ravages, "the disease of Vienna." The measures proposed in this document are indeed drastic, including as they do the isolation from their relatives of all those in whom pulmonary cavities or intestinal ulcers have become developed; the prohibition of marriage under certain circumstances, and a timely caution against the use of milk derived from cows which may be suffering from bovine tuberculosis! Precautions in the way of disinfection are detailed with great minuteness, but of all these prophylactic proceedings, one, more than all the rest, seems worthy of serious application, viz., the disinfection of tubercular sputa, the rationale of which really rests upon ascertained facts, and not upon unproven theory. We shall await with interest the result of these regulations in checking the occurrence of Vienna's arch-enemy, the tubercle bacillus.

Professor Jaccoud in a lecture recently delivered at the Pitié, on the bacillus in relation to the treatment of phthisis, declares that the discovery of Koch has not in the slightest degree advanced this, inasmuch as the measures now employed were already in use by himself and others prior to the discovery being made. This we presume is not the question at issue, but whether this discovery is a fact, for if it be proved such, of course any means of treatment that may have been empirically and conjecturally employed prior to this, will be placed on a scientific basis and will be pursued with more perseverance and confidence. Professor Jaccoud shows that the same prophylactic measures, such as ventilation, disinfection, separation of the phthisical from the healthy, &c., had been taught by him in his work on the curability of phthisis; and also that he had shown that the agglomeration of the subjects of phthisis in the same hospital is innocent or dangerous to those in attendance upon them accordingly as full disinfection and abundant ventilation are put into force or not. This, too, is why contagion of the disease is unknown in the mountain sanitaria. Prophylaxis of phthisis in families in which phthisis has prevailed must commence from the very cradle; and so strongly does Professor Jaccoud believe this, that he interdicts maternal suckling even when the mother is healthy and the father only the subject of phthisis, in the fear that the wife may contract the disease from the husband and contaminate her milk. Our sole reliance has been and continues to be on the exact observance of a good hygiene. Professor Jaccoud also attaches much importance to the mechanical effects of the repeated inspiration of compressed air, which leads to an increase of respiratory capacity and its beneficial consequences. "It leads to the disappearance of the inertia of the upper portion of the lungs, ensures pulmonary ventilation and circulation, and thus prevents those stases, the consequence of inertia, which are so favourable to productions of a low order, like tubercle. The best preservative against such imperfect formations is circulatory and functional activity, and such double activity attains its maximum by this method." Professor Jaccoud has an easy task in showing that Koch's discovery has led to no introduction of new curative agents, and the blame which he attaches to the wild attempts to inject antibacteric agents into the pulmonary tissue will be echoed on all sides. "Neither

the pharmaceutical, the climatic, nor the hygienic treatment of phthisis has been influenced by the discovery of the bacillus. Its import is merely nosogenic. It simply adds another means of diagnosis, and that is the only service it has rendered, for as regards the ætiology, symptomatology and treatment it has done nothing and can do nothing." Even supposing its operation will remain as limited as here prophesied, the discovery, if it holds good, will be of no mean importance.

It appears from the "Medical Students' Register for 1883," just published, that the number of students yearly entering the medical profession is still diminishing. From 1870 to 1875, the number of new entries in each year was fairly stationary, averaging in the three kingdoms from twelve to thirteen hundred. During the next lustrum there was a rapid increase, the yearly figures steadily running up until, in 1881, the largest number hitherto recorded, viz., 2,171, was reached. Since then there has been a considerable decrease, the number falling in the year before last to 1,862, and last year to 1,783. In Scotland alone has there been no decline, last year's record, 596, being the highest yet reached. It does not speak very well for the conditions of medical education in this country to find Scotland, with a population of about one tenth of that of England, educating, and receiving payment for educating, considerably more than half as many medical students as are educated in England.

During the last five years the Registrar of the Medical Council has taken the trouble to tabulate the number of students, according the places at which they commenced their medical studies, and from these returns we have drawn up the following table, which may interest some of our readers. It may be remarked that the numbers given seldom accord with the returns published by the medical schools, for in the latter, students are often counted who commenced their studies in the provincial schools or with a registered practitioner, and who appear under these heads in Mr. Miller's tables—

A.—Metropolitan Schools.

Medical Schools.	1879.	1880.	1881.	1882.	1883.
Charing Cross Hospital	32	27	24	20	18
Guy's Hospital	81	71	58	54	58
King's College	26	40	43	23	29
London Hospital	33	46	43	42	36
Middlesex Hospital	24	25	25	24	26
St. Bartholomew's Hospital ...	86	100	104	69	82
St. George's Hospital	30	36	40	29	22
St. Mary's Hospital	24	14	18	19	16
St. Thomas's Hospital	35	39	38	32	32
University College	71	57	61	47	47
Westminster Hospital	19	13	18	12	11
Total	461	468	472	371	377

B.—Provincial Schools.

Medical Schools.	1879.	1880.	1881.	1882.	1883.
Birmingham	11	11	25	29	22
Bristol	14	21	21	25	18
Leeds	31	27	21	23	25
Liverpool...	36	32	39	30	19
Manchester	68	51	76	60	60
Oxford	5	6	4	9	5
Cambridge	46	65	80	73	76
Durham	14	29	22	24	16
Total	225	282	288	273	241

C.—Scottish Schools.

Medical Schools.	1879.	1880.	1881.	1882.	1883.
Aberdeen...	73	80	66	77	79
Edinburgh	286	297	289	310	286
Glasgow	150	169	162	155	155
Total	509	546	517	542	520

It will be seen at a glance from this table, that while in 1879 the number of students beginning their education in London was more than twice the number of students beginning in the provinces, and only fifty less than the number beginning their studies in the three Scottish centres; in 1883 on the other hand the proportion of London to provincial students was not much more than as three to two, while the Scottish schools beat the London schools by as many as 143. In other words the number of students entering on their studies at the London schools has in six years fallen from 461 to 377, while the number entering at the provincial and Scottish schools has increased from 734 to 761. If the increase and decrease continue in the same ratio in future years, it will not be long before the conditions of medical education come to be recognised by every one as a very burning question. We ourselves have recognised and preached this long since.

We have received the draft of a bill about to be introduced into the Legislative Assembly of the Province of Ontario, enacting further provisions respecting the public health. We do not know what laws already exist in that colony, but the present bill appears to be intended to supplement the "Revised statute respecting the Public Health," by regulations for the constitution of Provincial and Local Boards of Health, distinct from the other local authorities, and by special enactments, drawn up on the lines of our Public Health Act, in respect of nuisances, offensive trades, unsound meat, and the prevention of infectious diseases, and establishment of hospitals for the same. The definition of a "house" is decidedly preferable to our own, including as it does "schools, factories, and other buildings, huts and tents used for human habitation or work, whether such use is permanent or temporary, and whether the same be stationary or moveable." Our definition most unaccountably excludes workshops where fewer than 20 persons are employed, and it has been ruled that a caravan, in which small-pox occurred, could not be treated as a house, because it was not fixed to the soil. The constitution of Local Boards of Health in every township, incorporated village and town, as well as in combined districts, is compulsory, but the appointment by such boards of a Medical Officer of Health, or of an Inspector of Nuisances, is left optional. The notification of all cases of infectious disease, *i.e.*, small-pox, diphtheria, scarlatina, typhoid fever, and cholera (typhus is not mentioned), within 24 hours of their recognition, is enjoined on both householder and medical attendant, and neither the patient nor his clothing may be removed from the house without the knowledge and approval of the Board of Health, its medical officer, or the medical attendant. Two very comprehensive schedules describe the duties of Boards of Health and their officers, and lay down rules for the construction and ventilation

of drains, closets, &c., and also provide for extending the notification to measles and whooping cough, when these assume the proportions of an epidemic, with the exhibition of a notice board on infected houses. The Medical Officer of Health is required to furnish to all medical practitioners forms for giving full particulars of every case of infectious disease, including the name of the schools attended by any children from the infected house, and the termination of the case in death or recovery.

The University of London Lodge of Freemasons, which has long been talked about, was formally consecrated at Freemasons' Tavern by Lord Carnarvon, Pro.-G. M., on Wednesday last, after the annual presentation ceremony at the University. The new Lodge will take rank with the Apollo Lodge of Oxford and the Isaac Newton Lodge of Cambridge, and will be confined to Members of the London University. Brother F. A. Philbrick, Q.C., was installed as W. M., and among the medical graduates who were founders and first officers of the Lodge are Dr. Meadows, Dr. Gooding, Dr. Sansom, and Dr. Curnow. A Banquet was held in the evening. Amongst the speakers at it were Sir Francis Burdett, Mr. S. Pope, Q.C., and Mr. Edward Clarke, M.P., all of whom expressed the heartiest good wishes for the welfare of the new Lodge. In these we may cordially join. It will doubtless be a great gain both to Freemasonry, which will secure an increased number of recruits from amongst University graduates, and to the University, which has long needed some such bond of union amongst its members.

It is with great gratification that we are able to announce that Dr. Buchanan Baxter, after passing through a prolonged and anxious illness, is at length well enough to resume his work.

A copy of the official catalogue of the International Health Exhibition is before us; it is the most confused and the worst compilation of the kind we have ever seen. The cardinal defect is the omission of a classified index, so that it is impossible to know how many exhibits illustrative of a particular subject exist, save by reading most of the catalogue itself; the text is interspersed with little feeble essays on food, dwellings, &c., and advertisements. We trust a second edition will immediately replace this unfortunate production. Why should not the catalogue of the first Health Exhibition be a literary work in the truest sense of the word, one that students of hygiene would bind and preserve? Such a catalogue would have redeemed many little defects in the management, and if properly arranged, would have enabled the visitor to at once find any particular object he happened to be in search of.

Professor Gaillard Thomas, in a lecture recently delivered at the New York College of Physicians and Surgeons, drew attention to the fact, that among the nineteenth-century women there are two classes; the distinction between them has probably existed for many previous centuries, but to the exigencies of modern civilisation seems to be owing its present broad and well-marked outlines. The one class, we are told, comprises those women who desire, above all things, to become pregnant and to bear children; and the other, those who are anxious, above all, not to bear children. With the latter class the lecturer does not further concern himself; as regards the former, he points out that their disappointment is, in many cases, due to a habit of aborting; and further, that about eighty per cent. of miscarriages take place at the end of the third month of utero-gestation.

Two factors make for such an occurrence. Firstly it is at this period of intra-uterine life that the placenta is becoming completely formed, while the chorion is disappearing; and this period of change in the method of fœtal nutrition from the chorionic—in which blood is derived from the whole intra-uterine surface—to the placental—in which blood is drawn from only a limited portion of the uterine wall—is a critical one, fraught with liability to dangerous complications. Secondly, it is at the end of the third month that the pregnant uterus begins to rise above the pelvic brim; and if its supports be weak, so that the organ suffers something of a flexion or a version, the nutrition of the fœtus may be thereby deranged, and the further continuance of utero-gestation imperilled.

Putting aside various possible causes, such as slight but irritable cervical lacerations, irritable granulations about the os uteri, extreme nervous conditions, &c., there are two great *causes* of habitual abortion. The first is stated to be a posterior displacement of the uterus, which interferes with the proper development of the organ. This may often be so slight as almost to escape detection in the non-pregnant state; but a careful digital examination, with the woman standing in the erect posture, will show the uterus to be lying a little posterior to the line of its normal axis; and a slight further deviation backwards, such as is apt to occur in the pregnant organ from its increased weight, is sufficient to induce miscarriage at the third month. As regards treatment, should a woman in this condition, who has previously aborted, again become pregnant, she should be carefully watched, and be examined every four or five days, or at the longest once a week. If by the end of the second month the uterus is found bent farther backward than at the end of the first month, the patient should be placed in the genu-pectoral position, the uterus gently pushed over into its proper place, and a pessary inserted to maintain it in position. Supported in this way the uterus is able to rise out of the pelvis as it enlarges, and pregnancy is, therefore, allowed to go on.

The other great cause of abortion at this period is, of course, syphilis. "The moment I see a woman who tells me that she aborts regularly at the end of the third month, I am so certain of the cause that I say to myself, that she has either a slight or a great displacement of the uterus, or else there is syphilis in the family." "Syphilis," says Dr. Thomas, "certainly developes accidentally sometimes;" and he thinks it

unwise of the physician to scout and disbelieve the statements as to the extraordinary and unusual methods by which the disease has been innocently contracted, which are occasionally put forward. As a case in point, he gives one instance which is ingenious, if not convincing. "I have known," he says, "of the case of a sewing woman in this city who became infected with a true Hunterian chancre, followed by a secondary eruption, apparently in the following way: she accidentally pricked herself in the breast with a pin which had, probably, retained upon it syphilitic virus from the hand of the woman in France who had made it, and who had, doubtless, just been dressing her chancre previously to sticking the pin on the paper to send to this country, where it was destined to infect her innocent sister." Charity, doubtless, may well be accorded a place in many a clinical lecture; and something, perhaps, may be said for that charity which—beginning (and staying) at home—makes an unknown foreigner the "doubtless" cause of the disaster, and which appears to credit every workwoman in France with "her" evidences of a loathsome and disreputable malady; but we cannot concur in the desirability of setting such a story before students as an example of the way in which a scientific physician gathers his evidence.

"NON POSSUMUS."

The hopes which a few sanguine spirits entertained, that the great meeting of the Fellows and Members of the College of Surgeons in March would possibly mark the commencement of a new era in the policy of the College, have been rudely dispelled. The Council devoted the greater part of their protracted sitting on Thursday week to a consideration of the resolutions adopted at that meeting, and their decision on the various proposals submitted to them was recorded in our last issue. To all but one of these proposals their reply is simply, "Non possumus." That such would be the case, one was almost prepared to expect, considering the rumours which have been freely circulated in professional circles during the last few weeks. Still the report of the Council's proceedings will have been read with not the less widespread disappointment, because their action had in many quarters been accurately forecasted. The Council, we believe, have finally decided to carry into effect the changes which they had already agreed upon, and which they only submitted to the meeting of March 24th *pro formâ*; but, as we have already said, with one exception, they have determined *not to take action* on any of the independent resolutions which were passed by the meeting, on the Council's express invitation. One concession they have made, it is true, but in such a modified form as to deprive it of all meaning. They are willing to allow an annual meeting of Fellows and Members to be held, at which *a* report of the Council shall be "presented." But they have carefully guarded themselves against the assumption that they are in any way responsible to such meeting by striking out the words "received and adopted." The Council, in short, preserve their right of reporting to the meeting, but apparently will not admit the right of the meeting in its turn to discuss or criticise their report. Could any concession have been made in a more grudging or pedagogic spirit?

How much is likely to be gained from such a series of annual meetings may not unfairly be estimated from the results of that recently held. The Council evidently either decline to accept the major premiss, which we hold in common with all other advocates of reform, viz., that there is strength in the popular principle of representation, and hence see no force in our conclusion, that their power will be living and beneficent in proportion to the breadth of the base on which it rests; or else they have decided that the March meeting was not a sufficiently representative one to warrant their taking action on its proposals. In the former case we have nothing further to say, but must patiently wait for a more modern-minded Council. In the latter case, *i.e.*, if the meeting were not felt to be representative enough, surely it is incumbent on the Council to summon another before applying for powers to carry out those changes in the charters to which it was thought necessary to gain the assent of the Fellows and Members. If the absence of a large proportion of the holders of College diplomas implies consent in the one case, it ought to imply consent in the other. In fact, the Council must know that the proposals of Mr. Paul Swain are cordially acquiesced in by the vast majority of the Fellows and Members, who would undoubtedly have attended in much larger numbers had they not accurately foreseen—as the event proves—that all action on their part would be fruitless.

We deeply regret the course of action—or rather of inaction—pursued by the present Council. It cannot fail to stir up a feeling of resentment, which will more and more estrange the Fellows and Members from the College, and add to the proverbial instability which characterises a house divided against itself. As to the great desirability of a truly representative Council, no one, except the members of the present irresponsible executive, is in doubt; while few will question the value to the profession at large of a sense of personal responsibility on the part of its members to some central Institution, or the controlling effect of such a sense of responsibility on the actions of each individual Fellow or Member. The College of Surgeons, almost less than any other public Institution, appears to exercise authority—good, bad, or indifferent—over its members. There is an entire absence of *esprit de corps*, and an entire want of interest among the members, both in the parent Institution and in each other. In this respect the College is curiously unlike all other public Institutions, and this failing is not only an inevitable source of weakness, but a cause of many of the backslidings that are unfortunately to be found among the rank and file of the profession. We shall watch with some curiosity the further development of events. The Fellows will presumably show that they know how to exercise the power which they undoubtedly possess. The election to the Council of Fellows pledged to bring about the much needed and wholesome changes, is the first and most obvious if not the only effectual method of rousing the Council to a sense of their representative position, and to the necessity of doing that which will meet the wishes of the majority.

But the Members, too, must organise their forces. By their numbers, if in no other way, they can exercise great weight at the annual meetings which are now to be held; they can petition Parliament against any changes of the present charters which do not bring with them that direct representation on the Council which will give them a voice in the management of the College. But for this something better than the present association of members will have to be organised. Time and trouble and money are required to call into existence an association which shall be representative of 16,000 men. A more propitious meeting time and place must be arranged by mutual consent, and if the promoters of the movement are wise they will elect to rally their forces at a time when some public occasion draws medical men together, such as the meeting of the British Medical Association. It is easy enough to indicate the directions in which good work may be done; let it be done good-naturedly and quietly. The successful result is but a matter of time.

THE SOCIETY OF THE ART AND MYSTERY OF APOTHECARIES.

Mr. Henry Bullock, in a letter which we publish elsewhere, complains that in our leading article of last week we have done "a considerable amount of injustice to the Society of Apothecaries, and through them to the ten thousand licentiates." He has evidently not grasped the meaning of our remarks if he thinks we shall admit that injustice to the Society is the same thing as injustice to their licentiates; but we do not even admit that we have been unjust to the Society, nor do we think Mr. Bullock's letter will persuade any reasonable being that we have been unjust. We cannot again discuss the constitution of the Society, but we may state briefly, that of the four-and-twenty gentlemen who rule it, the oldest must be over eighty and the youngest can scarcely be less than sixty-six; that the masters and wardens are evidently elected solely by seniority; and that there is so little circulation, except as the result of death, in the Court of Assistants, that, according to the last published list, only two retired members of it are in existence. Mr. Bullock asks whether certain members of the Court of Examiners are not fit and proper persons to have a voice in the direction of the medical education of the future? It will be time enough to answer this question when Mr. Bullock has assured us that the representative of the Society on the English Medical Board, supposing one to be granted, would be chosen by the Court of Examiners. Of course, if this were so, if, too, the apprenticeship system were still recognised as an integral part of the medical curriculum, and if, again, the Society still elected general practitioners as its examiners, and not young consultants, why, then there might be some semblance of an argument in favour of the proposed representation on the Medical Board. But Mr. Bullock places himself in this dilemma: Either the representative would be elected by the Court of Assistants, in which case he would be chosen by a self-elected committee of very senior gentlemen, with no recent knowledge of the conditions of medical education and examination, or he would be elected by the twelve members of the Court of Examiners, nine of whom are Members or Fellows of the College of Physicians, and have therefore presumably no special claim as general practitioners—even accepting Mr. Bullock's view—to influence medical education. But we do not accept Mr. Bullock's view. We have the greatest respect and admiration for general practitioners, but we cannot admit that they are more practical men, or a whit more likely to conduct examinations on practical lines, than "pures and specials." We cannot for the life of us see why the twenty-four gentlemen who govern the Society, or the twelve gentlemen whom they choose as their examiners, have any greater right to seat a member on the English Medical Board than any twenty-four senior general practitioners, or any twelve junior consultants chosen at hap-hazard.

Mr. Bullock says that the Society was, in 1815, constituted "an examining body in the Art and Science of Medicine." If so, it is unfortunate that it should still retain on its diplomas the style and title which stands at the head of this article. The perpetuation of the word "mystery," smacking as it does of the worst traditions of medicine, would seem to show that the modern scientific spirit has been felt as little in the cloistered peace of Apothecaries' Hall, as, to judge from some recent evidence, it would appear to have been felt amidst the turmoil of Printing House Square close by. There are many of course who will regard this cleaving to old fashions as a point in favour of the Apothecaries' Society. No one, indeed, who has any reverence for time-honoured institutions will fail to regret the inevitable sacrifice of the Society to the logic of events. There seems, however, to be no help for it. For, once accept and legislate on the principle that there shall be a uniform qualifying examination for all medical practitioners, and there remains no longer any excuse for the existence, as an examining body, of a corporation whose *raison d'être* hitherto has consisted in its power and practice of giving an inferior qualification. The Apothecaries' Company is now suffering, or doomed to suffer, as a result of the short-sightedness of its executive in the last generation. If, forty years ago, the Society had re-constituted itself on a popular basis, changed its name, which has always been a stone round its neck, and, strong in the loyal support of its licentiates, had strenuously resisted the attempt of the College of Physicians to give a general practitioner's diploma, it might have become the most powerful and popular medical body in the kingdom—occupying something of the same position that the British Medical Association now holds. But it preferred to retain its gerontarchical constitution, and to let the College of Physicians oust it from its own particular field, so that no one but its own licentiates, and probably not very many of them, would now stir a finger to prevent its being relegated to its old position as a simple City Company. Even the writer in *Blackwood's Magazine*, who fights strenuously enough in behalf of the other Corporations, is forced to admit that the Apothecaries' Society must submit to effacement.

We sincerely trust that the Government will not be persuaded against their better judgment to reinstate the

Society in the place from which they have so wisely excluded it. That would be to take away from it every incentive to reckon with circumstances and boldly to strike out a novel line. If they could only see it, the rulers of the Apothecaries' Society have the possibility of a great and successful career still open to them. Before the Medical Bill, should it pass without tangible modification, has been in operation for many years, it is quite likely that there may be a great and irresistible demand for a lower grade of Medical Practitioners. Even now medical men are above the places which many of them must take, and when the law demands of them a still higher culture, and a still more prolonged and costly education, it will be found, we fear, that the poorer populations in town and country will be entirely deserted by the doctors and left to the tender and ignorant mercies of the herbalist and prescribing chemist. Then there will be an outcry, and the public will demand either that the chemists shall receive some smattering of medical education, and be allowed to visit patients and treat them, or else that a lower grade of medical practitioners shall be called into being for the service of the poor. The latter course would certainly be the more sensible one, and if we could once get over the old idea, which has met with little support outside the profession, that a doctor must of necessity be a gentleman, a very useful and excellent career would be opened to many of the picked pupils of the Board Schools. They would not be above their work, and would not regard their fees, as so many medical men in poor districts do now, as out of all proportion below the value of their services. The doctor of to-day often feels that to take a small fee is to do injustice not only to himself but to his profession, the standing of which, as a whole, seems lowered by his act. He has moreover to keep up a certain position in accord with his assumed social superiority to the trading classes, and he cannot do that on exiguous fees. But once recognise a lower grade of practitioners recruited from a lower class, and trained in a less costly manner, and no indignity would be felt by them in accepting the only fees that the labouring classes can afford to pay. And the community would be a direct gainer from the fact that a class of cases which now fall into the hands of chemists and herbalists, would then be treated by men with some medical training, however short it might fall of our present standard.

If this innovation be ever brought about, it will be to the Apothecaries' Company or to the Pharmaceutical Society that the Government will turn, as the proper authorities for controlling this new departure. And the two Societies, as suggested by the writer in *Blackwood*, might very advantageously form an alliance for the examination of the new practitioners who, if their education is to be a really cheap one, must be in great measure trained on the old apprenticeship system. In such a case the Apothecaries' Society would have a fair claim to control the examinations. The new practitioners must of necessity be allowed to keep open shop, as were the apothecaries of old, for the economical conditions of poor neighbourhoods do not admit of that more expensive specialisation of function which obtains amongst the well-to-do. If then the Apothecaries' Society can make up its mind to give up its hopeless attempt at rivalry with the Colleges of Surgeons and Physicians, and be content to take a lower place, it may still in the not far distant future find a useful and lucrative *rôle* opening before it. Otherwise, it seems to us, it must put up with a position, distinguished only from that of other City Companies, by its trading privileges. These views that we have put forward will no doubt be considered in many quarters as heretical. But the heresy of one generation is not unapt to become the orthodoxy of the next; and no advantage is gained by holding on to worn-out conventions when the current of events is sure, sooner or later, to tear us away from them. As it is, the line of cleavage between the doctor who dispenses and the doctor who prescribes is much more clearly marked than any that exists between the physician or surgeon and the general practitioner. There is at present no single differentia sufficient to distinguish every physician from every general practitioner, and as time goes on, and the upper ranks of the profession become more crowded and the lower more ambitious, the faint line that at present divides them will become a vanishing one. It would be unadvisable, even were it possible, to perpetuate it, for the course of events will inevitably draw the line elsewhere. The State has already acknowledged the principle of a lower grade of practitioners by constituting the "Dentists' Register;" and as every man of sense saw at once that it was impossible to demand that every dentist should be a perfectly educated medical practitioner, so, we believe, it will one day be admitted, that if the poor are not to be left in the hands of the chemists, we cannot enforce an ideal medical education on their attendants, but must be content to institute a lower grade of medical practitioners, who will stand in the same relation to the regular practitioner that the apothecary once held in relation to the physician.

SMALL BEER IN LUNATIC ASYLUMS.

Dr. Murray Lindsay, in his report on the Derby County Asylum, for the year 1883, is content to "chronicle small beer," or rather to record with enthusiasm the triumphs of that system of which he is an earnest apostle, of depriving pauper lunatics of their small beer. We admire his courage for writing as he does on the subject, while living within a few miles of Burton-on-Trent, and with the solemn names of Bass and Allsopp ever sounding in his ears, but we cannot help thinking that he misapprehends the points at issue in this great contest on beer, by which the medico-psychological world is now torn asunder. The question is not whether it is economical to withhold their modest tumbler of malt liquor from the inmates of our asylums, but whether it is justifiable to do so; not whether it is convenient, but whether it is humane. To mix up with this question discussions as to the utility of alcohol as an article of diet, or as to the social advantages of total abstinence, is to betray hopeless confusion of ideas. A lunatic is not, we apprehend, by the mere fact of his lunacy reduced to the status of a lower animal, or of a baby-in-arms. The

whole modern system of the treatment of the insane is founded on the recognition of the fact that a lunatic retains his manhood in spite of his disease, and is to be treated as a reasonable being, except in so far as his own safety, or that of others, demands that restraint should be imposed on him, or in so far as it may be necessary to insist on a certain course of treatment as conducive to his restoration to health. Now Dr. Lindsay will not contend that a glass of beer jeopardises the safety of the lunatic, or of the public, or, in ninety-nine cases out of a hundred, interferes with his prospect of recovery. Why then should a grown man, who has been in the habit of taking a glass of beer all his life, be converted into a teetotaller against his will? Why should he, when labouring under a grievous affliction, when separated from his family, and shut up with anything but desirable companions, have his sufferings aggravated by being denied what he regards as a solace, and what is at any rate a harmless indulgence? Custom and association have made a glass of beer a symbol of comfort and enjoyment to many of the most respectable of the working classes, and we know of no argument by which compulsory blue-ribbonism, any more than compulsory Mohammedanism, or compulsory agnosticism, can be defended.

Alcohol is unnecessary as an ordinary article of diet, says Dr. Lindsay. Of course it is, but the term unnecessary, as he uses it, is a very comprehensive one; and if pauper lunatics are to be cut down to what is absolutely necessary, their existence will become somewhat bald. Tobacco is unnecessary, beef and mutton are unnecessary, and so are tea and coffee. Does Dr. Lindsay propose to put a stop to the use of these articles in the establishment under his care? Those elaborate theatrical performances that Dr. Lindsay provides for his patients, and in which the asylum officers so proudly strut in fancy costumes, are, it must be allowed, quite unnecessary. Oh! but Dr. Lindsay will reply, these entertainments are eminently beneficial, by inducing a cheerful frame of mind, and that is just what we would contend for in the case of the small beer—that it is eminently beneficial by inducing a cheerful frame of mind, less, like the theatricals, by its inherent qualities, than by the associations that its name and outward semblance summon up. Let a vote be taken by impartial authorities amongst the patients in Dr. Lindsay's asylum, between theatrical performances and small beer. We have not a doubt that the drama at the Derby Asylum, with all its pomp and histrionic ability, will have to give place to the despised and unnecessary beverage.

Dr. Lindsay asserts that the health of the inmates of his asylum has not in any way deteriorated since the beer ration was stopped. Now it is quite possible that a considerable deterioration of health may take place in a community without any evidence of it being discoverable in the death-rate or medical returns, and Dr. Lindsay is not entitled to speak dogmatically on this point unless he has a very complete series of weighings of his patients, with and without the beer ration, to appeal to. And even then the point would not be definitely settled. Our prison authorities will tell Dr. Lindsay that it is possible to put a man on bread and water for three days once a fortnight for a considerable period without any loss of weight indicating failure of health; but can any medical man doubt that such a regimen would result in impairment of health and vigour in the long run? Comfort is a safe practical guide to health, and if a small quantity of beer in the dietary of an asylum conduces to the comfort and satisfaction of the inmates, then it may fairly be argued that it makes for health. But Dr. Lindsay himself supplies grounds for believing that the withdrawal of beer cannot have contributed to the higher health of his patients. This withdrawal has, he says, resulted in a saving of 410*l.* per annum, that is to say, about 1*l.* per patient. But the whole food of each patient, as far as we can judge from the accounts, does not exceed 10*l.* per annum, and thus about one-tenth of the nutriment formerly allowed to them has been taken away. The dinner of the patients on one day a week consists of one pint of soup and six ounces of bread, on another, of six ounces of bread, fourteen ounces of meat, and potatoes, pie, and fourteen ounces of suet pudding, and anyone who is familiar with public-institution cookery on the large scale will believe that on the suet-pudding day at any rate a pint of small beer would be an agreeable addition to the mid-day meal. There would have been less objection to the withdrawal of beer from the asylum dietary had compensation in the form of meat or milk been given, but to stop the beer and pocket the price of it is scarcely a commendable proceeding. Asylums are not workhouses, but in hospitals and asylums economy is a secondary consideration when compared with efficiency and the comfort and happiness of their afflicted inmates. That the stoppage of beer in asylums is a tyrannical proceeding is evidenced by the fact, that in the case of nurses and attendants who can make their grievances heard, the value of the beer has been paid to them in money, so that they can buy their own beer; while in the case of the patients, who have no appeal, no compensation of any kind for the intercepted small beer has been granted.

REVIEWS AND NOTICES OF BOOKS.

LAWSON TAIT ON DISEASES OF THE OVARIES.[1]

We doubt if there be any surgeon of the present day less trammelled by authority, or bolder in risking his reputation than Mr. Lawson Tait, of Birmingham. His courage and his skill have brought him an enormous field for experiment, and been rewarded with unprecedented success. Therefore, a book by him on his special subject, must excite the interest, and command the attention of all who are ever called upon for their advice in cases of the kind described in it. Mr. Tait's work is full of originality. That which chiefly detracts from its excellence as a scientific treatise is that we are generally called upon in it to

[1] The Pathology and Treatment of Diseases of the Ovaries (being the Hastings' Essay for 1873), by Lawson Tait, F.R.C.S., Ed. and Eng., Surgeon to the Birmingham Hospital for Women, &c. &c., fourth edition, rewritten and greatly enlarged, pp. 357. Birmingham: Cornish, Brothers, 1883.

take the results with simple, unquestioning faith in the accuracy of Mr. Tait's judgment. He does not sufficiently supply the information from which an independent thinker might form an opinion for himself. We do not for a moment attribute to Mr. Tait any intention other than that of arriving at the truth, and making it known as fully and exactly as he can; nor do we doubt that his conclusions are supported by the facts of the cases under his own care, so far as they are known to him. But he does not state his reasons and results in such a form as to convince a scientific sceptic that every discoverable source of error has been eliminated. We could imagine him saying to the medical world—

> "We'll not insult thy majesty by time,
> Person, and place: the where, the when, the how,
> And all particulars that dull brains require
> To constitute the spiritless shape of Fact
> They bow to, calling the idol, Demonstration"—

were it not that the tone of this quotation is far too deferential to accord with that of Mr. Tait's writings. He uses ambiguous phrases without explaining what he means by them. For instance, speaking of the removal of diseased Fallopian tubes, our author says (p. 66), "All my patients—22 in number—have recovered, and of those in which a sufficient time has elapsed since the operation, I can say confidently that they are all completely cured." This seems to us a sentence devoid of definite meaning, unless we know (1) what is "a sufficient time," and (2) how many of the cases have been watched during that "sufficient time."

But it will be more profitable, without lingering on features which disappoint us, to give our readers some idea of the important peculiarities in opinion, and novelties in practice, which are put before the profession in this work. The chief among them are already familiar to most, from the discussions upon them which have occupied our medical societies. Mr. Tait is a strong disbeliever in Listerism; he thinks it worse than useless, and rather prejudicial to success than otherwise. He brings forward strong arguments, as well as the astonishing results of his own experience, in refutation of the popular belief on the subject. It appears to us, that if Mr. Tait's opposition is regarded as directed only to certain details with which he dispenses, he has established his case. But a broad fact which Mr. Tait cannot overturn, is this: that there exist hospitals which, before Sir. J. Lister's teaching became influential, were little better than slaughter-houses, in which, since their surgeons have adopted Listerism, the major operations in surgery have been performed with unprecedented success—we allude, of course, to hospitals on the Continent; and that in London hospitals, we see cases in which, before Listerism, a free discharge of so-called "laudable pus" was thought a healthy sign, but in which now the surgeon reproaches himself if he sees any pus at all. When these results can be obtained without Listerism, then Listerism will be dead, but till then Mr. Tait's attacks will not kill it, and, we hope, will not check its use.

Mr. Tait has introduced the extirpation of diseased Fallopian tubes. In this we believe him to be a true pioneer; but he is not a road-maker, for he frankly says that he cannot teach others how to diagnose the cases or perform the operation. The establishment of this operation, as a recognised resource of surgery, has to be done in the future.

Mr. Tait points out one useful diagnostic point between ascites and ovarian dropsy, which we do not remember to have seen described before. It is, that in ascites by deep pressure a dull percussion note can often be altered to a resonant one; the explanation being, that by this manœuvre the layer of fluid over the intestine is pressed away, and the clear note of the bowel becomes audible. In ovarian dropsy, on the contrary, by deep pressure a resonant note will be changed to a dull one, because by such pressure the abdominal wall is brought into more extensive relation with the tumour, and any intestine overlying it is squeezed aside. Mr. Tait advances an important view with regard to the relation of ovarian dropsy to malignant disease. He holds, "that the growth of ovarian tumours is associated with a tendency towards malignant disease." If this view be correct, it establishes, as he points out, "the absolute propriety of removing ovarian tumours at a very much earlier stage of their existence than has been, till recently, the accepted rule in practice." It follows further, that tapping should be discarded, except under very exceptional circumstances, as being attended not only with some immediate danger, but with a risk of secondary infection of the system with cancer. Mr. Tait does not place confidence in the diagnostic conclusions which, according to some observers, are to be drawn from the microscopic examination of the fluid removed.

The first chapter of the work treats of the anatomy and physiology of the ovaries, and in this field, as well as in the clinical one, Mr. Tait has observed and thought for himself. He rejects the view of certain German investigators, according to which the ovary forms a singular exception to rule (very difficult, it always seemed to us, to understand), in being, unlike every other abdominal viscus, devoid of a peritonæal covering. Mr. Tait finds, as the result of a special research, that this investment is represented by a layer of squamous epithelium which covers the whole gland. Another new and interesting point is, that in a few cases he has seen "a crescentic double fold of the posterior layer of the broad ligament pass down behind the ovary," covering it like the hood of a "Nepenthes" gland. "In all such cases," he tells us, "the women have been sterile, probably because this hood has prevented the application to the ovary of the opening of the oviduct." Another commonly accepted belief which Mr. Tait would overturn, is that as to the medico-legal value of the corpus luteum. He says, "After a very extensive acquaintance with ovaries, I would not venture to give an opinion from any number of corpora lutea, as to whether they indicated past pregnancy or not." His view on this point is supported by a paper by Dr. Popow, read last year before the Obstetrical Society of London.

The pages dealing with the clinical aspect of imperfect development of the ovaries and oviducts, seem to us to contain statements open to grave doubt. Thus, we are told, "epilepsy is only too common an accompaniment of arrested sexual development in women," and the drift of the passage (page 39), too long to quote in full, is to leave the impression that the epilepsy is the result of the developmental error. On the next page we find, "the great bulk of cases of this kind are those which are afflicted to a less degree, but whose sufferings are nearly always sufficient to require medical assistance." It is a fact, as Mr. Tait mentions in his next sentence, that many of the subjects of this sexual defect are women of "splendid physical development," and (which he does not say) free from any symptoms of ill-health beyond the non-performance of some sexual functions. Is it not probable, from the obvious fact that persons who feel well do not commonly seek medical treatment, that the subjects of the type last mentioned, whom gynæcologists see, are less numerous than those whom they do not see? Is it not also well known, that all conditions of serious ill health, affecting girls in

whom puberty would be otherwise at hand, tend to delay it? And among such conditions are not idiocy and imbecility—conditions often associated with epilepsy and with deficient physical development generally—prominent? Looking at these facts, it appears to us sounder pathology to regard the cases in which, with deficient uterine and ovarian development, no symptoms are present—the subject, indeed, enjoying robust health—as the rule; and as a demonstration, furnished by nature, that deficient sexual development does not cause ill health: and to regard the condition of the sexual organs in the class of epileptics alluded to, as merely one result of the generally defective health. Mr. Tait recommends the galvanic stem in cases of deficient uterine development. We should much like to see published a series of cases in which this instrument has been used. Our author does not supply it. He has removed the ovaries for "menstrual epilepsy," but the cases are too few and too recent to warrant any conclusion from them.

Mr. Tait does not mince his language. Indeed, he sometimes uses words stronger than seem to us warranted. Thus (p. 43), we are told that the sound, which many gynæcologists consider useful, and employ thousands of times in the course of every year, without any suspicion that they are submitting the patient to an appreciable risk, is a "most dangerous implement . . . it has done an infinite amount of mischief, and probably we should have lost nothing if it had never been invented." On p. 159, we are told, "the patient died on the fifth day, as was usual when the clamp was employed." Surely, when 75 per cent. of the patients recovered, it is too strong to speak of death as "usual."

As an example of readiness, boldness, and originality of resource, and of what may be done with success, we may quote the following:—"A few days ago I removed a tumour universally adherent, full of pus, and quite rotten. I tore across the pedicle before I had recognised it, and its vessels bled profusely. Like the rest of the tissue it was quite rotten, and the more I tied the vessels, the more they bled. The cautery was equally useless. I therefore secured all the points by means of forceps, and left them *in situ* in the abdomen, closing the wound over them. I reopened it in twenty-four hours, removed the forceps, refastened the wound with a drainage tube at its lower angle, and the patient made an uninterrupted recovery" (p. 283).

Mr. Tait, in describing the history of ovariotomy, seems to have much sympathy with Mr. Baker Brown, and to regard him as a man whose career was cut short by unjust condemnation. On the other hand, he seldom mentions Sir Spencer Wells, except for the purpose of implied or expressed disparagement. All that we need say on this point is that Mr. Tait has either not studied the controversy which ended in Mr. Brown's discomfiture, or he judges that surgeon's conduct by a standard very different from our own.

Our notice has reached a greater length than we intended. The extraordinary interest and value of the book have drawn us on as we wrote. To sum up our judgment (many points in which space forbids us to illustrate), we do not know any work which gives so full, so clear, and so practical an account of the diagnosis of ovarian tumours, the performance of ovariotomy, and the after-treatment of the the patients. We think it has seldom happened that a book on any subject has been published which breaks so much fresh ground, points the way to such brilliant victories over disease, as the one before us. But, as we have said, its merit is that of a pioneer, of an explorer, not that of a road-maker; to use the military metaphor, Mr. Tait seems to have conquered a new territory, but he has not yet so organised it, that it is safe for other travellers to follow. The work is suggestive and dogmatic, rather than demonstrative.

DENUCÉ ON INVERSION OF THE UTERUS.[1]

We have much pleasure in expressing our high appreciation of this most laborious and valuable work. It is a historical and clinical treatise, of an elaborate and exhaustive kind, on an exceedingly rare disease; and for this reason is of more interest to specialists than to general practitioners, most of whom will, probably, pass their lives without ever seeing a case of the kind. Some such monograph was needed; for, since the publication of Crosse's famous essay on uterine inversion, a great advance has been made in its treatment, in the use of the repositor perfected by Dr. Aveling. Improvements have also been made in the methods of removing the inverted uterus in cases in which reduction is deemed impossible.

Dr. Denucé's essay is clearly written, and very well arranged. He has spared no pains to make it complete; indeed, the only fault that we are inclined to find is that too much trouble has been taken; that little points of detail are discussed at a length, as it seems to us, out of proportion to their importance, and that obsolete modes of treatment are described as fully as those which have superseded them. But these are, if we may use a paradoxical phrase, good faults. We beg leave to congratulate Dr. Denucé on his work, and to thank him for it.

Year-Books of Medical Progress: Therapeutics for 1883. Dr. Amidon, pp. 247. *Surgery for* 1883. Dr. Knight, pp. 197. Putnam's Sons, New York and London, 1884.—The two books alike in all save their subject-matter, are intended each to give a condensed review of some of the many contributions made during the past year to the subjects of which they treat. We gladly welcome such aids to universal knowledge, for memory is often treacherous; without such reminders as the perusal of these books afford us, good papers are apt to escape us, and much useful information to be lost which might otherwise prove useful to us. The surgical book loses much of its value from being issued without either a table of contents or an index. The therapeutics would be improved if the index were more copious. If such works are to be really useful, besides being as complete as possible, they should be well up to date, and every paragraph within easy hail of the reader. The paper, printing, and style are beyond praise.

Scrofola e Sifilide; studio del Dott. Sebastiano Giovannini (Scrofula and Syphilis). Bologna: Gamberini and Parmeggiani, 1884.—This "study" is the reprint of an article which recently appeared in the *Bullettino delle Scienze Mediche di Bologna.* It consists of 139 pages of closely printed matter; it is not divided into chapters; it has no table of contents, no headings to the paragraphs, no catchwords, and no index. Under these circumstances, the book is not likely to attract readers. The gist of the "study" is to show that its author sees no reason to admit of the existence of a special scrofulous habit. The milder forms of scrofula (so-called), both of the skin and of mucous membranes, are merely the ordinary phlogistic processes; they have minor analogies with syphilitic affections; the remaining (so-called) scrofulous processes are really localised manifestations of tuberculosis. Both scrofulous and syphilitic processes have an infective origin: the former can be carried in the air, the latter cannot; both produce local lesions at first, which tend to generalise themselves if the soil prove suitable. The scrofulous virus may propagate itself acutely, as general miliary tuberculosis, in this respect resembling acute syphilis, but with very different sequelæ. When scrofula and syphilis affect the same person at the same time, each runs its own peculiar course. The possible origin of scrofula from a worn-out syphilitic diathesis is discussed; the author appears rather to lean to such a view.

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[1] "Traité Clinique de l'Inversion Utérine," par P. Denucé, Doyen et Professeur de Clinique Chirurgicale à la Faculté de Médecine de Bordeaux, &c., &c. Paris, 1883; pp. 645.

ABSTRACTS AND EXTRACTS.

SURGERY.

THE ADMINISTRATION OF ETHER BY THE RECTUM.—M. Mollière, Surgeon-in-Chief of the Hôtel Dieu, Lyons, gives an account of some operations for which, at the recommendation of Dr. Yversen, of Copenhagen, he induced anæsthesia, by administering ether by the rectum. Only a small quantity was required, which was given by means of a double tube and Richardson's pulverizer. The results were very satisfactory, and M. Mollière believes that this method is likely to render great services. It suppresses the stage of excitement, and the dose employed, which is reduced to a small quantity, can be strictly measured, while in operations on the face, the apparatus is not in the way of the operator. The inspiration of ether, too, which to some patients is so odious, is avoided. Further trials are required to fully estimate the value of this mode; but, thus far, it may be stated that in order to obtain deep anæsthesia, with a very small quantity of ether, it suffices to introduce a caoutchouc tube into the rectum, and bring this into communication with the ether flask, placed in a recipient containing water at from 40° to 60° C.—*Lyon Médical*, March 30th.

TREATMENT OF FRACTURED PATELLA.—Dr. Jalaguier, in an eminently French, but very interesting, paper in the March and April numbers of the *Archives Générales de Médecine*, discusses the "new methods" of treating fractured patella—aspiration of the effused blood or other products, and suture of the fragments, after opening the joint—the former operation being "*une étape de transition*" between the old method, which respected the joint at any cost, and the new one, which lays it freely open. The author gives summaries of all recorded cases, and traces the histories of the two operations. It is curious to note that the line of argument against aspiration of the joint, when this operation was first introduced, is very similar to that used now-a-days against the infinitely more serious one of free incision. For aspiration met with a very adverse criticism at the hands of the Société de Chirurgie of Paris, in 1872, when M. Dubrueil related a case in which he had practised this operation, which was followed by formidable complications and ultimately proved fatal. It had long been recognised by surgeons that effusion, either sanguineous or not, into the knee joint after fracture of the patella was the chief cause which interfered with the approximation of the fragments; no wonder, however, that after such an expression of opinion by the Surgical Society, the operation languished, and, indeed, never became popular in France. In England and Germany, however, it has been practised with success, and by many surgeons is even now considered the best operation in order to bring about coaptation of the fragments. The graver operation of opening the joint is legitimately a subject on which there is room for differences of opinion. Many surgeons reject the operation because satisfactory results can be obtained without it. Such a position is absolutely unassailable, and Verneuil thinks it unjustifiable to run grave risks by opening the knee, while such results can be obtained. Our author discusses all the *pros* and *cons*, and concludes his instructive paper thus: Without wishing to prejudice the fate which may be in store for this new operation, and without forgetting the remarkable successes which Lister and others have obtained, we must recognise in recent simple fractures of the patella, that suture of the fragments after free opening of the joint is a method so hazardous that it ought not to be had recourse to in the first instance. On the contrary, in certain old fractures, with a view to remedy severe functional disturbance, it may be tried, but even then the operation is not free from dangers. The author refers also to the influence of atrophy of the quadriceps muscle as a factor in the pathology of loss of use of the limb; and he remarks on the absence of any attempt to prevent or treat it surgically.

The same subject has recently been discussed by Dr. J. L. Little, who describes (*New York Medical Journal*, March 29th) a method which he has practised with success since 1863. The traumatic effusion into the synovial cavity having subsided (aided if necessary by the application of pressure), a posterior splint of two thicknesses of flannel (strengthened in the middle, under the knee, by two extra layers) and plaster of Paris, is made long enough to reach from a little above the ankle to above the middle of the thigh. Above and below the knee joint it should be wide enough to embrace two-thirds of the circumference of the limb, but at the joint it should only just cover the condyles of the femur. The splint is further attached to the limb by a three-inch wide strip of double flannel and plaster encircling it and the limb at each extremity. Having been thus applied, the splint is maintained in position by a *dry* roller bandage firmly applied over all until the plaster has set. When the plaster is firm, the bandage is removed, and two other strips of double flannel, an inch wide, and long enough to overlap on the posterior surface of the splint, are soaked in freshly-mixed plaster, and then tightly applied cross-wise above and below the patella, while the fragments are held in position by an assistant. A dry roller bandage is then applied rapidly with figure-of-eight turns over the strips, and the surgeon then, with thumb and finger of each hand over these coaptation bands, forces the fragments into close approximation and holds them there until the plaster has set. The bandage is then removed, and the dressing is completed by applying a fresh dry roller over the whole length of the limb. The patient may sit up or get about on crutches. The dressing is not a heavy one, and the site of injury can be at any time inspected by merely removing the external bandage; if any displacement of fragments have occurred, it can be corrected by removing the coaptation bands and applying fresh ones. Very satisfactory results—including cases of bony union—appear to have been obtained by this method.

RUPTURE OF BOTH QUADRICEPS EXTENSOR TENDONS.—Two cases of this accident have recently been recorded. In the first case (*New York Medical Journal*, December 29th, 1883), the patient, ten years ago, fell, detaching the quadriceps extensor on the right side from the patella. Six years later he had another fall, when a similar accident occurred on the left side. A year ago the right knee-joint became the seat of acute arthritis, was opened and washed out several times, and subsequently healed. At the present time the quadriceps extensor femoris on either side appears to be quite absent, so that the finger can be thrust deeply behind the upper border of the patella, and rest well in the inter-condyloid notches. On a level surface the patient walks fairly well, and he has very few falls. If the legs are flexed, he cannot extend them at all. The right leg can be extended to 170° and flexed to 75° passively; there is much grating, and the patella is fixed; there are several cicatrices about the knee. The left leg can be flexed and extended passively through normal arcs. The second patient, seventy-two years of age, was recently shown at the New York Surgical Society (*Philadelphia Medical News*, April 12th). He had ruptured both his quadriceps extensors, producing an abrupt depression above the upper margin of the patella on both sides, sharp edges indicating where the aponeuroses had not been ruptured, and furnishing two strong fibrous bands which enabled him to make some extension of the limb at the time of the injury. There was also a good deal of extravasation. The accident was caused by slipping upon a piece of ice, one knee giving way, and the other tendon rupturing almost immediately afterwards. The patient was treated by placing the limb in a straight position; a large amount of effusion took place in one joint, but not in the other. The injury occurred three months before, and the man is able to walk slowly both tendons having united equally well.

TRAUMATIC DETACHMENT OF THE LOWER EPIPHYSIS OF THE FEMUR.—M. Delens, of the St. Antoine Hospital, after analysing the cases of this accident that have been hitherto published, arrived at the following conclusions:—(1.) It has been almost exclusively observed in boys, and especially

between the tenth and eighteenth year. (2.) The detachment is ordinarily proved by forced extension of the limb, whether combined or not with torsion and tearing away. The posterior ligament of the knee-joint plays, in the mechanism of this fracture, a part analogous to that of the anterior ligament of the radio-carpal articulation in fracture of the lesser end of the radius. (3.) The detachment most frequently takes place at a point nearer to the extremity of the diaphysis than that of the epiphysis. It is often accompanied by the separation of a scale from the end of the diaphysis. (4.) It has sometimes been confounded with dislocation of the knee. (5.) Among the primary complications, one of the most frequent and most serious is the perforation of the skin, and the protrusion of the end of the diaphysis. When this cannot be reduced, it should be immediately excised. Primary amputation should be reserved for cases in which there is rupture of the popliteal artery. Secondary amputation is sometimes rendered necessary by sphacelus or other dangerous complications. (6.) Excision of the end of the diaphysis allows of the preservation of the limb, and does not prevent the complete re-establishment of the motion of the joint. The ultimate increase in length of the femur, although strongly influenced is not arrested by the excision.—*Archives Générales*, April.

Statistics of Ear Diseases.—Dr. Bürkner from tables which he has constructed from cases observed by himself, and from numerous statistical reports published by others (making a total of 58,645 cases) arrives at the following conclusions:—(1.) The most frequent causes of diseases of the ear are catching cold, affections of the nose and pharynx, and the existence of acute infectious diseases. (2.) The predisposition to these affections increases from birth to the fortieth year, and diminishes from then to old age. (3.) Men suffer from diseases of the ear more than women in about the proportion of three to two (4.) Of the entire number of cases in about 25 per cent. the outer ear is affected, in 67 per cent. the middle ear, and in 8 per cent. the internal ear. (5.) The left ear is more frequently diseased than the right, in the proportion of five to four. (6.) Acute affections of the middle ear occur seldomer in summer and autumn than in spring and winter. (7.) Of the entire numbers of diseases of the ear treated in the polyclinics (out-patient department), about 53 per cent. are cured, 30 per cent. are relieved, 7 per cent. remain uncured, and 0·3 per cent. prove fatal. Dr. Bürkner points out that the worth of such statistics is much diminished by the fact that the cases are treated at the polyclinic, so that it is difficult to follow the course of a great number of them, as would be expected also from more males than females forming the subject of them. The proportion of cured cannot also be exactly given, for while many aurists regard a case as cured, even when the completely normal hearing-distance has not been restored, the others would only place it amongst the improved.—*Centralblatt für Chirurgie*, March 29th.

Foreign Bodies in the Ear.—A lecture delivered by Dr. Sexton at the Clinic of the New York Eye and Ear Infirmary, in which numerous cases are referred to (*Philadelphia Medical News*, March 1st), contains several useful practical observations. "Foreign bodies," he observes, "are not often met with in the ears of very young infants, unless put in by playmates—a difficult feat, on account of the collapsed state of the canal in these subjects. Older children frequently introduce them themselves. The entrance to the meatus is often, especially in children, naturally contracted by the elastic fold of its posterior border, which comprises that portion of the cartilage forming the bottom of the concha and beginning of the canal. When foreign bodies are slipped beyond this constriction, they are indefinitely retained, since they cannot fall out again of themselves, nor can they be removed by jarring the patient's head. In syringing for their removal, escape at this point is difficult, and should, therefore, be facilitated by drawing back the auricle, and completing the extraction by means of the hook or forceps. Illumination by means of the head-mirror is a *sine quâ non*. There should never be undue haste or precipitation in the efforts at removal. In young and restless children it is quite often necessary to administer an anæsthetic before beginning operative procedures. The operator should first carefully ascertain the exact location of the object, and its size and character; and as to this matter, the statements of the patient or friends should not be implicitly relied on, as they are frequently misleading. Regarding the choice of instruments, Dr. Sexton advised, that when the patient was old enough to keep quiet, and the object was found just within the lumen, the hooked curette was usually alone sufficient; but even in such a case as this, if the body had been started further in on being touched, it was well to direct a small stream of warm water into the canal, well to one side of the stranger, if possible; and this should be quickly followed up until successful—not forgetting that the child must usually be firmly held by a competent assistant. Should the body, however, be found well down in the *cul de sac* and impacted, as is too often the case from previous unsuccessful efforts, syringing may be unavailing, and the foreign-body forceps will often be needed—indeed, they are of the greatest value when the object is impacted anywhere in the canal, since, when held in their bite, very great traction can be made. When the hard, or smooth and hard, nature of the object prevents a secure hold being thus obtained, the hooked curette is the most serviceable instrument; for it can be, in nearly all cases, forced between the object and the walls of the canal, and from its firm hold—the teeth being set so that, on withdrawal, they become fastened, or firmly impinge against the object—effective traction can be made. Of course, when a firmly-impacted body has once been started, efforts should not be relinquished until successful, even though the canal be considerably lacerated, for such wounds are generally found to heal very promptly. When the body lies in contact with the drum-head, it requires great tact and dexterity to avoid injury to that delicate structure; but in the great majority of instances the operation may be safely performed. In these difficult cases of deep impaction, it is often found that the foreign-body forceps will grasp hard and smooth objects more successfully than would be supposed, and patient effort in this direction should not be too quickly relinquished. The surgeon must *under no circumstances try to fix the forceps without distinctly seeing what he is about.* If the parts are moistened with blood, mucous, &c., this should be carefully wiped away before proceeding. Sometimes the bleeding may be checked by light syringing with *hot* water before wiping the parts. Should the operator carelessly poke the forceps about in the neighbourhood of the drum-head in efforts at seizure, he may easily lacerate that membrane.

The Treatment of Hepatitis and Hepatic Abscess.—After pointing out the difficulties of diagnosis of hepatic abscess, and how utterly erroneous are the descriptions given in the text books, Dr. Manson ("China Customs' Medical Reports for 1883") describes his operative treatment. An abscess in the liver, he argues, ought to be treated exactly as an abscess anywhere else would be. The object of the present communication is to show how a free opening may be made into a deep-seated abscess without the danger of profuse hæmorrhage or of setting up peritonitis, and without incurring many other risks that might well be urged against the operation. Having ascertained the presence and site of the abscess, Dr. Manson punctures with a large trocar and cannula; after withdrawing the trocar he passes down the cannula a long stilette, on which, by means of a small eye at one end and a piece of string, he has stretched a piece of perforated indiarubber tubing; whilst inserting this he withdraws the cannula, so that the rubber tube is grasped tightly by the tissues. On cutting the string which keeps this stretched, it tends to rebound towards the fixed end, *i.e.*, towards the abscess cavity; the stilette is next withdrawn, when the wound, both in the liver and abdominal wall, will be found to be securely plugged by the tube. This can then be connected with a bottle to receive the discharge, which at first would be too great to be merely received into the dressings. The whole operation is done under antiseptic precautions, and one of its not least advantages is that it can be done by a man single handed.

Reindeer Tendon as a Ligature.—Dr. Putiloff, of Omsk, in Siberia, reports that he has found the thread made from the tendon of the reindeer, for sewing, in Siberia, a highly useful substance in surgical practice. For this purpose, it is first steeped in ether for 24 hours, and afterwards, for the same time, in a five per cent. carbolic acid solution. Thus prepared, the tendon is found to be stronger than catgut, and as soft as silk, and is completely absorbed in the wound.—*Centralblatt für Chirurgie*, March 22nd.

Coccygodynia.—In exhibiting a carious coccyx which he had removed from a patient who had manifested all the classical symptoms of a very bad coccygodynia, Dr. Goodell referred to two other cases of the mimetic variety of the disease. To one patient, who suffered from very exacting coccygeal symptoms, an operation was at length proposed. As soon as the day and hour were fixed, she lost all pain in the coccyx, and had suffered no return of it during the last six years. Another very obstinate and severe case, which had a traumatic history and which had been treated for a long time unsuccessfully, quickly disappeared under the influence of an exciting family jar.—*New York Medical Journal*, March 15th.

The Orthopædic Surgeon as a Mechanical Engineer.—Dr. Shaffer contends (*New York Medical Journal*, January 26th), that every orthopædic practitioner ought to furnish specific details of every appliance which he requires, and should, if necessary, be able to make it, or at least *know how* to make it. He claims that there is nothing degrading or unprofessional in attending personally to the details of the mechanical department of orthopædic work; and contends that every scientific orthopædist competent to give to his patients the skill which they have a right to demand should become responsible for everything pertaining to the manufacture of the instruments to be used. In direct connection with the New York Orthopædic Dispensary, there is a fully equipped mechanical room in which four or five men are constantly employed in making apparatus directly under the instructions of the surgeons; no apparatus is made without a drawing, and careful measurements — accompanied by actual outlines when necessary—are given with every order; no repairs are executed except by personal instruction of the surgeons. A similar shop, fitted with steam power, has been established in connection with the University Hospital at Philadelphia. It is stated that the entire cost of this building did not exceed two thousand dollars, and that it is now almost self-sustaining—actual cost of production only being charged to those patients who are able to pay for it.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Friday, May 9th, 1884.

Sir Andrew Clark, Bart., M.D., President, in the Chair.

Intestinal Obstruction (by a Diverticulum) successfully treated by operation.

The following is an abstract of the paper by Mr. Clutton:—A boy, aged 10, was brought to Mr. Clutton's notice by Dr. Powis, of Greenwich. He had had several other attacks of a similar kind, but lasting only two or three days, and always terminating with a copious evacuation from the bowels after enemata. On this occasion he was taken ill suddenly at the seaside with vomiting, and great pain in abdomen. He was brought home to Greenwich on the third day, and as treatment by enemata and opium proved of no avail, Mr. Clutton was asked by Dr. Powis, on the fourth day of the illness, if operation would be likely to afford him relief. He was at once transferred to St. Thomas's Home, where, after the administration of an anæsthetic, the abdomen was opened. A collapsed portion of bowel was soon found, and on bringing it to the surface a tight ring-like cord could be felt and seen to be the cause of strangulation. This band was clamped by two pairs of forceps and divided, each end was then ligatured with catgut and the forceps removed. The bowel was found after the division of the constricting band to have been set free from strangulation. It was not thought desirable to make more than a cursory examination for the origin of the band causing the obstruction as the boy was much collapsed before the operation commenced. The two catgut ligatures formed the means of recognising the original position of the now divided band. One of these ligatures was situated at the extreme point of a diverticulum two inches in length, and the other was placed upon the wall of the same loop of intestine at a distance of about six inches. A portion of bowel of about three inches in length between these two points of attachment was the part strangulated, and was of an extremely dark colour with a deep sulcus at each side. The boy made an uninterrupted recovery and left the hospital on September 12th. The explanation of the condition found in the abdomen seemed to Mr. Clutton to be as follows:—The vitelline duct had been obliterated at the umbilicus, and set free from the abdominal wall, but remaining patent towards the ileum, the lower end had become a pouch-like diverticulum from the intestine. This diverticulum terminating in a pointed extremity or cord—part also of the vitelline duct which had been obliterated—had remained floating about among the intestines till it became attached, as we have seen, to the bowel in contact with it. The gut between the two points of attachment had slipped beneath the cord which united them, and being unable to extricate itself had become strangulated.

Dr. Coupland congratulated Mr. Clutton on the success of his case. Of several operations which he had himself seen not one had been successful, but he thought that the strength of the patient mainly determined the issue of the case. This form of strangulation under Meckel's diverticulum was the most common and he had seen many such cases. He quoted one in which a distinct depression of the umbilicus had been caused by the attachment of the band to it. Such depression might occasionally assist the diagnosis. In another case he had made a *post-mortem* examination and had found that a portion of bowel had passed through the mesentery of such a diverticulum.

Mr. F. Treves remarked that Perrot had recorded twenty-nine cases of internal strangulation, only seven of which were caused by Meckel's diverticulum. In the cases which he had himself collected the proportion was about the same. He thought that this must be regarded as the most acute form of strangulation; cases did not often survive the fourth day. The fact that the strangulating medium was itself bowel might be held to account in some measure for the extreme nervous disturbance produced. In cases where the diverticulum was not attached to the umbilicus it was generally found to be united to the mesentery. He considered that a history of previous attacks of obstruction was not of much importance in the diagnosis. With regard to the pain, he believed that it was generally continuous in cases where the strangulation was complete; as diagnostic of the seat of obstruction, however, it was of no value, being generally localised in the neighbourhood of the umbilicus. He thought that further clinical details would be of interest, especially with respect to the relation of the pain to the vomiting. Mr. Clutton's case was probably the first successful operation on record in which a tubular constricting band had been divided.

Dr. Mahomed thought that, although such cases were well-known, there were many points upon which discussion might throw additional light. He felt certain, from his own

experience, that paroxysmal pain was not of necessity indicative of partial stricture. He thought extreme distension generally pointed to strangulation of the large intestine. He preferred to make the incision to the outer side of the right rectus, instead of in the median line.

Mr. TREVES explained that he had examined the reports of 50 cases of complete obstruction, and in only five had the pain been paroxysmal.

Mr. C. J. SYMONDS asked for further information with respect to the seat of incision. In the cases in which he had operated with Dr. Mahomed, he had made the opening at the point of greatest distension. Was such a rule a safe guide? He himself preferred the middle line, thinking that bands were more commonly found about the level of the iliac crests. He referred to the high mortality in these cases which he considered might be reduced by more immediate treatment, as in cases of hernia.

Mr. H. MORRIS referred to a case operated upon directly after admission, the incision being made in the middle line. The patient was the subject of double inguinal hernia. The sac on one side containing the nipped intestine was found to be displaced. When the large intestine was strangulated, the cæcum was generally the seat of the greatest amount of distension. He mentioned the advantage of colotomy, in cases where the seat of strangulation was doubtful, and related a case in which much relief had been given by evacuation of fæces by this means, although the presence of a second strangulation led to a fatal result.

Mr. CLUTTON, in reply, recapitulated the chief points in the clinical history of the case. He thought that, even with complete strangulation, life might be prolonged beyond the fourth day, and mentioned an illustrative case which proved fatal on the ninth. In the present instance the constricting band was a solid fibrous cord, and not tubular. He would oppose the practice of opening the abdomen anywhere than in the middle line, which, he thought, was by far the best situation, more especially in doubtful cases.

The Treatment of Fractured Patella.

Mr. CHRISTOPHER HEATH read a paper, of which the following is an abstract, in fulfilment of his promise at an early meeting of the Society, to produce patients treated immediately after the accident by plaster of Paris. He gave Mr. Hutchinson the credit of first combating the old teaching that separation of the fragments depended on muscular action, and agreed with him in believing that it was the fluid in the joint which was the difficulty. Mr. Heath proposed to get rid of the fluid by aspiration, and had never seen any bad result from the practice, but preferred, when possible, to prevent effusion by at once enclosing the joint in plaster of Paris. This required renewal in about six weeks, and at the end of three months a leathern splint was applied to the knee and thigh so as to control the action of the extensor when the patient was walking. Two women and a man were shown, in all of whom the plaster was applied within an hour of the accident, with very good results as to short fibrous union.

Mr. HENRY MORRIS had treated a case of fractured patella on November 7th, 1883, in which a very wide separation had taken place, the upper fragment being drawn up towards the thigh. The patient had been able, however, to bring it down to some extent by kneading. He thought that the laceration of the fibrous capsule of the joint had a great deal of influence in permitting this wide separation. He had often proved the fact on the dead body, and did not himself think that the fluid effusion into the joint could possibly be the sole cause. At the Middlesex Hospital the cases were treated by elastic traction upon the upper fragment. He showed the splint employed after six weeks' treatment, its special advantages being that it allowed of a graduated movement of flexion, whilst still supporting the limb, and preventing any danger of accidental twist or strain. In his own two cases there was hardly any displacement. He did not, however, believe that true bony union had taken place.

Dr. JULIUS ALTHAUS enquired whether these cases exhibited the knee-jerk phenomenon.

At the suggestion of the PRESIDENT, he examined the cases present, and reported that the phenomenon was present in all the cases.

Mr. R. W. PARKER thought that, whatever the cause of the separation, there could be no doubt that effusion into the joint was the cause of the difficulty of bringing down the upper fragment. The practice of tapping the joint was until lately regarded in Paris as unjustifiable, a view which was not in accord with Mr. Heath's teaching of aspiration as a routine procedure.

Mr. C. J. SYMONDS asked what amount of fluid should be removed; whether it was any good to remove small quantities. In one very successful case he had applied Martin's rubber bandage, before fixing the joint in plaster of Paris.

Mr. G. R. TURNER had examined many museum specimens of fractured patella and had only seen one in which, with a transverse fracture, there was complete bony union, although it was more common in the starred fractures. In some cases with complete separation of the fragments, but with intact capsule, the joint remained good and useful. He would like to see these cases a year later, when they had left off artificial supports, believing that separation would be sure to take place, as in all other instances of fibrous union.

Mr. R. J. GODLEE thought that wiring alone could give a really perfect result. Portions of the capsule or of fibrous tissue frequently became squeezed between the fragments and prevented union. No operation could be justifiable, however, unless the operator was confident of his own powers of maintaining complete antiseptic precautions.

Mr. CHRISTOPHER HEATH did not think that Mr. Morris's case was conclusive as to the continued contraction of the muscle. He now caused all his cases to be put up in plaster of Paris when quite recent, and hence aspiration was rarely necessary. From three to four drachms was generally enough to remove.

Hydrocephalus, probably of old standing, followed by Insanity and Death.

Dr. WHIPHAM read notes of the following case:—The patient, aged 39, was one of twins, his brother having died in infancy of effusion on the brain. In early years the subject of the communication had been uncertain in temper, and had occasionally squinted. After 12 years of age he enjoyed remarkably good health; his intellectual capacity was above the average; he was well informed on most subjects, and fond of exercise. He had suffered in early manhood from a soft sore, but never had syphilis. On October 7th, 1882, he consulted Dr. Whipham, because "he had been mad." It then appeared from inquiries through his wife and friends, that he had been for eighteen months, from time to time, strange in manner and irritable, and that he often sat by himself at his club, muttering; that in conversation he often lost the thread of his discourse; that he had written inexplicable letters to a relative and to a friend. Of late he had become very drowsy, and even went to sleep occasionally while at meals. His memory had been failing for eight months or so. He had been a regular, but not excessive, smoker. At the date above mentioned his expression of face was vacant, and, unless questioned, he stared vacantly at space. His answers were inaccurate, and he had one or two delusions. His gait was steady, his grasp feeble, his special senses natural. He became more and more captious and irritable, and his usual reading was distasteful. Once or twice he was obstinate and somewhat violent in the streets. By Dr. Blandford's advice, he went to Folkestone for change, but derived no marked benefit. On one occasion he started for a walk by himself in the middle of the day, and returned, without being able to give any account of himself, at nearly midnight. On his return he became morose and sullen rather than violent, and was eventually sent to

Munster House. Soon after his arrival it was noticed one day that the left pupil was larger than the right, and he had a fit during dinner. Ten days later he was again violent and noisy, wet and dirty. Two days before his death, when walking with the support of an attendant, he suddenly fell headlong to the ground, sustaining no injury save an abrasion of the nose. The patient died early on December 28, 1882, and on the morning of the previous day had been excited and very noisy. Subsequently he became unconscious for some hours. At 7.30 p.m. he recovered, and was more rational than at any time since October 10. This condition lasted for a quarter of a hour, when he again became drowsy, and at last unconscious till his death. At the autopsy the ventricles of the brain were so distended as to contain about three-quarters of a pint of fluid. The dura mater was adherent generally to the skull-cap. No other lesion of the brain was found. Dr. Blandford, who was called in consultation, rather inclined to the diagnosis of general paralysis, basing his opinion on the elation, incoherence of ideas, and inability to concentrate his attention. Dr. Savage, in the *Journal of Mental Science*, July, 1880, records a case in which great dilatation of the ventricles was found in a female, aged 35, who was insane for eight months before her death. In this case, however, there was the complication of granular kidneys. In the case before the Society, all the symptoms of general paralysis were not present, and a certain diagnosis was not made. Elation certainly existed at one time, but only lasted for a day or two, and the gait, save on one or two occasions soon after the attack, was remarkably steady. In the absence of any evidence of other disease, the symptoms must be referred to the hydrocephalus, presumably of long standing.

Dr. Blandford remarked that in this case there had been many features present which were characteristic of general paralysis of the insane, and he had expected that an outbreak would take place, but a condition of stupor seemed to have taken its place, and showed remissions from time to time very difficult to account for.

Dr. Althaus enquired if there had been a history of syphilis in the case.

Mr. R. W. Parker asked if there had been atrophy of choroid.

Dr. Whipham replied that there had been no reason to suspect syphilis. The eyes had not been examined by the ophthalmoscope.

The President drew the attention of the Society to the fact that the next meeting was the last of the session, and that several papers still remained to be read. He suggested that an additional meeting might be held, but left the point for decision at the next meeting.

The following living specimens were exhibited :—

Cases of Fractured Patella.

By Mr. Christopher Heath, and Mr Henry Morris.

Two Cases of Rupture of Brachial Plexus.

By Mr. C. J. Symonds, and Mr. Davies Colley.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 13th, 1884.

George Johnson, M.D., F.R.S., President, in the Chair.

A Pelvic and Parietal Tumour of the Abdomen. Removal by Operation. Recovery.

Mr. Gant related the particulars of a case in which a tumour grew from the ileum, and lay between the muscles of the abdominal wall. The question of diagnosis had reference principally to the distinctive characters of a tumour thus situated, and an ovarian or a uterine tumour; but the differentiation between a pelvic fibroma, as in this case, and other forms of pelvic tumour was also noticed, and the circumstances which indicated its parietal relations were considered. The operation was then described, including the precise relations of the tumour, and the antiseptic dressing employed. The descriptive and histological characters of the morbid growth were specified. Some references to similar cases were appended, but they were rare in the records of surgery. All such cases agreed in two particulars: they had occurred only in women who had borne children; and that, whether fibrous or apparently recurrent fibroid, the growth had not returned after removal by operation. The increasing and sometimes rapid growth of these pelvic and parietal tumours demanded surgical interference; but the liability of opening the peritonæum, accidentally or unavoidably, and the almost certain result of a ventral hernia through the weakened abdominal wall, might so far deter the surgeon from having recourse to operation were it not for the assurance that he had to deal with a tumour which had hitherto proved to be non-recurrent.

Mr. Barwell congratulated Mr. Gant on the success of the operation. In tumours which arose from the inner parts of the pelvis, it was difficult to say whether they were malignant or innocent. Hence the reluctance with which surgeons interfered. The non-appearance of a ventral hernia was probably partly explained by the fact that the tumour developed outside the transversalis fascia, which covers the peritonæum in this situation.

Mr. Gant, in reply, thought that surgical interference with cases of malignant disease of this site should be undertaken with great precaution. The hard and painless character, with slowness of growth of his tumour, led him to think that the new growth was innocent. In the operation it was important not to "button-hole" the peritonæum.

An Easy and Safe Method of Sounding for Impacted Gall-Stones.

A paper on this subject was communicated by Dr. George Harley. The method recommended in the paper for indubitably ascertaining the existence of impacted biliary calculi was illustrated by the narration of a case in which it was successfully performed in the following wise :—the patient, a lady aged 36, who had been (under the care of Dr. Diver) for many weeks suffering from the signs and symptoms of obstructed bile duct, was placed under an anæsthetic. Dr. George Harley inserted a six-inch long French exploring trocar midway between the umbilicus and margin of the liver an inch and a half to the right of the median line. Its point being pushed upwards and backwards in the direction of the common bile duct, no hard substance was met with, on the stilette being withdrawn ascitic fluid came away, and the cannula could be moved freely in all directions. The instrument was withdrawn and reinserted an inch higher up, and about two inches to the right of the umbilicus. On pushing it in the same direction as before, to the depth of six inches, its point struck into a hard substance, presumed to be a biliary calculus. It was endeavoured to estimate the size of the stone by pressing the end of the cannula without the stilette firmly against the hard substance, and moving the point of the instrument all round it. The inference was that the stone was the size of a hazel-nut. The punctures were closed by means of sticking plaster, and the abdomen bandaged. The signs of obstruction now began rapidly to disappear, and it was supposed that the operation had caused the stone to change its position in the duct, and had thus enabled it to pass along into the duodenum. Convalescence at once set in, but was of short duration, for an attack of enteritis supervened, followed by peritonitis, and the patient succumbed

twenty-seven days after the sounding, and twenty-four after the stone had evidently left the duct. At the autopsy the thirteen calculi shown to the Society were found still in the gall-bladder, the longest being an inch in length, the next the size of a hazel-nut, the remainder all much smaller. The facets on the opposite ends of the large calculus showed that another stone, the size of a hazel-nut, must have existed, but come away. The paper ended with the following conclusions:—(*a*) That the presence of an impacted gall-stone may be readily as well as safely ascertained in the way described. (*b*) That not only the position, but even the size and shape of an impacted biliary calculus may be instrumentally ascertained. (*c*) That a knowledge of these facts may possibly induce surgeons to undertake the earlier artificial removal of dangerously impacted gall-stones than heretofore; an operation which the author of the paper thought ought to be, under ordinary circumstances, no more hazardous to the life of the patient than the operation of lithotomy. He believed that the fatality that had hitherto attended the operation had been almost entirely due to the fact of its having been delayed until the exhaustion of the patient precluded the possibility of recovery.

The PRESIDENT said the paper had opened up some very interesting questions. A case was mentioned in which a stricture was found, though a calculus had been diagnosed. He would like to be sure that bile was innocuous in the peritonæal cavity, but the evidence adduced on this point was, up to the present, insufficient.

Mr. F. B. JESSETT said that Mr. Lawson Tait had reported four cases of successful removal of gall-stones from the gall-bladder by operation. He questioned whether it would not be better to make an exploratory abdominal incision, which need not be large, and might be made parallel to and a little below the margin of the ribs. The stitching of the divided walls of the gall-bladder to the edges of the abdominal incision had been advocated by Mr. Lawson Tait. This would prevent bile gravitating into the peritonæum.

Mr. GANT paralleled the operation with that of nephrolithotomy, the main difference being that urine could not escape into the peritonæum. He was acquainted with the fact of peritonitis being the result of the extravasation of bile. Would it not be safe first to empty the gall-bladder by means of an aspirating syringe?

Sir WILLIAM MACCORMAC asked how Dr. Harley could speak of the operation as a safe one, seeing that peritonitis followed the procedure in the case he had related. He could not help thinking that the employment of an instrument blindly moving in the abdomen was dangerous. He preferred an exploratory incision such as was now made for so many morbid conditions within the abdomen.

Dr. DYCE DUCKWORTH thought the discussion had somewhat wandered from the subject of the paper. The method of sounding was not, in his opinion, an easy or safe one. The operation was, he considered, one of extreme difficulty. He wished to know what further procedure was necessary after the operator had supposed that he had ascertained the presence of a biliary calculus. Gall-stones were sometimes impacted very tightly in the gall-duct. A clumsy hand working in the dark in such an important region was very likely to do great mischief.

Dr. O'CONNOR asked Dr. Harley whether the liver was enlarged, how large the gall-bladder was, and whether there had been any severe paroxysmal pain. He did not think the method was a safe or an easy one.

Mr. BARWELL said there was much dislike on the part of patients to be subjected to an incision, unless they could be promised beforehand that something would be found. In this regard Dr. Harley's method might be looked upon as a valuable preliminary. He suggested that the fundus of the gall-bladder should first of all be explored. If calculi be detected there, Dr. Harley's instrument might be used as a guide in the performance of a subsequent operation. The mode of exploration was, however, regarded as of possible future value. The assumption that bile was innocuous in the peritonæal cavity was very hazardous. Needles might penetrate the human heart without ending fatally, as Mr. George Callender had shown.

Dr. C. J. HARE enquired as to the site of impaction of the gall-stones. Was it in the gall-bladder itself or in the biliary duct? Sometimes the gall-bladder was distended with fluid; at others it was empty. The gall-bladder was not always at an equal depth from the abdominal surface. The instrument had only given information of the existence of one gall-stone, when there were so many others. How was this? He looked with fear and trembling on the method.

Dr. GEORGE HARLEY, in reply, began by saying that very few medical men knew much of gall-stones, either in England or elsewhere. Erroneous notions concerning gall-stones were alarmingly prevalent. He recommended the perusal of M. Cyr's recent work. The difficulties of diagnosis were spoken of: cancer, stricture, ulceration of the duodenum, and other conditions sometimes exactly simulated the impaction of gall-stones. Most of the organs of the body, including the intestines and urinary bladder, had been punctured with a fine instrument without evil result. He emphasised the fact that this patient greatly improved after the surgical exploration. Sickness and vomiting were the invariable signs of impaction of a gall-stone in the gall-duct. Undoubtedly there was risk in exploring by the method advocated, but then it must be remembered that danger existed in almost every surgical procedure.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE II.

THREE SYSTEMS OF SEWAGE DISPOSAL.

THERE are three typical exemplifications of processes of sewage disposal at the Exhibition. In that adopted by the Manchester Corporation, the refuse matter derived from human beings, animals, vegetable matters, dust, &c., is all carted away to one place and destroyed, or manufactured into useful products. In Moule's earth system there is no manufacture, but simply conservation for a limited time, and restoration direct to the soil of that which has been derived from the soil; and, lastly, there is an exhibit of the A B C process carried out at Aylesbury. Each of these exhibits is worthy of special notice.

The Manchester System.

Manchester, a city of over 34,000 inhabitants, has for the past ten years adopted a "pail system," keeping all refuse matters as far as practicable out of the sewers, and has been able to manufacture a saleable manure and certain other products. Water-closets are of course excluded, but the excreta are received into a pail, and mixed with fine ashes; this mixture is effected by the ashes being shot against a sort of sifter, the fine ash-dust falling into the pail, the coarse into a special receptacle. The pail is of a special construction, it is made of steel, and provided with a caoutchouc rim, on which a cover is securely and hermetically clamped by a simple mechanical arrangement; the pails are of the capacity of ten gallons, and are removed daily or at longer intervals, according to circumstances, in a collecting van, which has two compartments, one for the pails, another for house refuse. The following table gives an idea of the quantities annually dealt with by the Corporation:—

	Tons
Fish, bones, dead animals—dogs, cats, &c.—boots, hats, &c.	137
Slaughter house refuse	1,295
Human excreta	31,817
	33,249

Vegetable matters—	
Cabbages, potatoes, straw, oil cloth, matting and brushes	38
Wet and dry cinders	36,210
Domestic dust	11,932
Glass and stone bottles, broken pots, flags, mortar and brickbats	480
Rags, paper, iron, wire, and tin	110
Total	82,019

These several matters are dealt with as follows:—The animal matters are deprived of their fat, which is worked up into soap, grease, &c., and treated with sulphuric acid to fix the ammonia; then the dried mass is broken up, powdered, and sold to the farmers as manure. The excreta are treated very similarly.

A model of the machines by which the drying and grinding is effected is exhibited, and great ingenuity has been displayed in its construction.

The cinders are used in the furnace fires, in order to effect the evaporations. The rags, paper, iron, wire and tin, are sifted out and sold. Some of the refuse is made into bricks, mortar and concrete.

The manure, the bricks, and samples of all the manufactured products are in the exhibit.

Manchester has adopted this system for ten years, and is satisfied with it, but the death-rate is still high, fluctuating between 24 and 25 per 1,000. It is often said that this high death-rate is due to Manchester being mainly a city of cottages; but this explanation can hardly be the correct one, for such a death-rate is slightly higher than that of the majority of the London tenement streets, so that if the disposal of refuse has so much to do with the mortality, as is generally believed, Manchester will not compare with towns in which the water carriage system is in force; that the old death-rate was 33 per 1,000 is a fallacious argument in favour of the new system, for at that time there were 60,000 cesspools, enough to have made a sufficient quantity of mephitic vapour to have infected a third of the population with all kinds of pythogenic maladies.

Moule's Earth Closets.

Moule's earth closets, Class XXIII. 535, have been lately improved, and as now made are in action automatic; a hopper is charged with earth, and by either pulling a handle or by the mere act of rising, a certain quantity of earth is thrown into the pail. In the same exhibit may be seen the model of an upstairs closet; by a lift arrangement earth can be conveyed to the closet from behind, so that it is unnecessary for the requisite supply of earth to be conveyed up the stairs; in the same way the pail or truck receiving the excreta may be removed.

The system as applied to schools is exemplified by means of a model. There has long been little difference of opinion that the earth system is a very cleanly good system for isolated houses in the country, or small communities; it has been in use at the Charter House School, Godalming, for some years; at the Board Schools, Sutton; at New College, Oxford, and at Girton College, Cambridge, and it appears to meet with the approval of the managers of these establishments.

The A B C Process.

In a detached building, the Native Guano Company exhibit the A B C Process for the disposal of sewage. This process has been in operation at Aylesbury for eight years, at a net cost to the town of 250*l.* a year. The town of Aylesbury differs in regard to its sewage, from other towns of a similar size in the enormous quantities of waste liquid from its tanneries. The sewage is all concentrated into one point, is pumped into a reservoir, is mixed there with blood, charcoal and clay, and then precipitated with sulphate of alumina; the precipitate is allowed to settle completely, and the supernatant fluid, which is perfectly colourless, is supposed to be in a condition to flow into a river without polluting it. The precipitate is dried and worked up into a saleable manure.

The exhibit showing these details is a very complete one, containing working models of the whole process in action; models of the works at Aylesbury, samples of the manure, and of vegetables grown on soil fertilised by the manure.

OBITUARY.

ANDREW WHYTE BARCLAY, M.D. Cantab., M.D. Edin., F.R.C.P., Lond.

Dr. Andrew Whyte Barclay, whose death, after a very short illness, at the age of 66 years, we have briefly noticed, was a scion of an old Scotch family; and, after receiving a good general education, became a student at the famous Medical School of the University of Edinburgh. He took the degree of M.D. there in 1839; but having been led by circumstances and an honourable ambition to settle as a physician in London, and finding that his Scottish degree would not, in those days, easily open fully to him the portals of the Royal College of Physicians of London, he entered as a student at Cambridge, and took the medical degrees granted by that University. He was elected to the Fellowship of the London College of Physicians in 1851; and in the following year he took the M.D. degree of Cambridge. He was for some years Physician, and finally Consulting Physician to the Chelsea, Belgravia, and Brompton Dispensary; and having been elected on the Staff of St. George's Hospital, he faithfully and assiduously discharged the duties of Assistant Physician, and full Physician till a year or so ago, when he retired, and was elected Consulting Physician to the Hospital. He was also Lecturer on the Principles and Practice of Medicine in the Medical School of the Hospital. Dr. Barclay was a highly educated physician, an acute and close observer, and a most honourable gentleman and trusty colleague; and he possessed social and mental gifts that endeared him to a large circle of friends; but he did not possess all the qualities that are necessary to command large and popular success as a practitioner. The profession in London showed their appreciation of his high character as a physician by electing him President of the Royal Medical and Chirurgical Society; and he did good service to the public, not only as Physician to St. George's Hospital, but also as Medical Officer of Health for Chelsea, an appointment which he held till the day of his death. He served the College of Physicians well and faithfully for several years in the capacities of Councillor, Examiner, and Censor; and only a few months before his death had been elected to the dignity of Treasurer to the College. He was not a large contributor to the literature of the profession, but he was author of works on "The Progress of Sanitary Measures and Preventive Medicine"; on "Medical Errors," and on "Gout and Rheumatism in relation to Diseases of the Heart;" and he contributed to the Transactions of the Medical and Chirurgical Society, vols. xxxi. and xxxv., papers on "Statistics of Valvular Disease of the Heart"; besides papers to some of the Medical Journals. He was best known, however, by his "Manual of Medical Diagnosis," which was first published in 1857, and attained the honour of a third edition.

GENERAL CORRESPONDENCE.

THE APPEAL OF THE APOTHECARIES.

[To the Editor of the Medical Times.]

Sir,—I have read with extreme regret your leading article, entitled "The Appeal of the Apothecaries," in which you have done a considerable amount of injustice to the Society of Apothecaries, and through them to the ten thousand licentiates. I trust, therefore, you will give a prominent place in your next number to the few remarks I am about to make.

The Society of Apothecaries is one of the City Companies, and is governed, as the others are, by a body called the Court of Assistants, the members of which are elected from the Liverymen (in the case of the Apothecaries, mainly by seniority), the body of the Society consisting of

about 350 members, who are nearly all general medical practitioners, and become members by patrimony, apprenticeship, or purchase.

The Society was constituted an examining body in the Art and Science of Medicine by the Act of 1815 in consequence of the refusal of the then College of Physicians to examine general practitioners as to their fitness to practice medicine, and in that expression lies the gist of the whole matter, and from it arises the question, what does such fitness consist in? Without, however, attempting to answer that question, I will ask, who so fit to ascertain the fitness of the general practitioner to practice medicine as the general practitioner himself? Consequently I believe that the great merit of the Society of Apothecaries as an examining body consisted in the past in the fact that a considerable number of the examiners were general practitioners, and consists in the present in the fact that they are still represented.

You say that a score of old general practitioners should not have the privilege of seating a member in perpetuity on the Board which is to direct the medical study of the future. I appeal to the constitution of the Court of Examiners of the Society of Apothecaries, both past and present, as good evidence that that Society *should* have a voice in the direction of the medical education of the future. Were not Druitt, Corfe, Semple, and Webb, and many others who might be mentioned, fit and proper persons to have such a voice? And are not Randall, Savage, Withers Moore, Burgess, Thorowgood, Carpenter, and all the other members of the present Court of Examiners fit and proper persons to have a voice?

Whatever the examinations of the future may be, the element of fitness to *practice* medicine and surgery must be steadily kept in view, and if the general practitioner is to be excluded from all voice in those examinations, I predict that the minimum examination of the future will satisfy neither the profession nor the public, and that gradually a new class of practitioner will arise, recruited from the ranks of the pharmaceutists, who will gradually elbow out the present general practitioner.

By all means let the examinations for the Membership of the College of Physicians, the Fellowship of the College of Surgeons, and of Graduates of the Universities be conducted by pures and specialists, and on the most scientific lines, but do let the minimum examination of the general practitioner be conducted by practical men and on practical lines. That such has hitherto been the aim of the Society of Apothecaries through their Court of Examiners, and I think not without success, is my firm belief.

Let me, in conclusion, state that the Society of Apothecaries does not benefit pecuniarily by their examinations, and that the Court of Examiners is paid a fixed sum, without reference to the numbers passed or rejected.

I remain, Sir, yours faithfully,
HENRY BULLOCK, F.R.C.S., M. & L. S.A.,
Undergraduate (1st M. B.) London, late Member of the Court of Examiners of the Society of Apothecaries.

P.S.—I may state that I have written the above on my own responsibility, and without communication with any other member of the Society.

HYDRO- AND PYO-SALPINX.

[To the Editor of the Medical Times.]

SIR,—It is a very difficult thing for me to express adequately my obligation to Dr. J. Kingston Fowler, for his contribution to the pathology of these interesting diseases. When I was asked by Dr. Horrocks, at the Obstetrical Society, how it was that I came across so many of these cases, and there were none found at Guy's, I had to answer to the effect that they did not look properly for them. From me this was, as a matter of course, not regarded as a satisfactory reply, but when the answer comes as emphatically as it has done from Middlesex and St. George's Hospitals, doubtless it will be regarded as complete.

It is a very curious thing, that though I have challenged discussion on this subject over and over again, without the result of getting anybody to tread on the tails of my coat, there are constantly being repeated to me all sorts of insinuations made behind my back. Once more I shall bring up the whole subject by a paper at the Medical Society, early next session, when I trust it will be convenient for my sceptical critics to attend.

From Dr. Fowler's paper it is perfectly clear that I have under-estimated the danger of pyo-salpinx, as in his list in eight out of fifteen cases the state of the tubes was the immediate cause of death.

Only one point alluded to by Dr. Kingston Fowler need be referred to at present, and that is, that I do not find that any kind of adhesion, however extensive, new or old, prevents me now from completely removing the tubes. This of course is the result of long and frequent practice, as I often complete operations now that would have been unfinished had they occurred in the earlier years of my practice. Only yesterday a case went hence to London, in which I had to remove both tubes, distended with old cheesy pus, the cause of years of ill-health and suffering, both tubes being densely adherent to everything. In removing the left tube I tore a hole in the rectum, and of course felt certain that I had killed my patient. But the drainage tube has saved her, and the wound is nearly healed, no fæces passing now. In one other case we found a fistula remaining, but it will close in time as others have done. With all this terrible work the mortality remains under 2 per cent., and therefore I am unwilling to join in what Dr. Playfair regards as a safe *via media*, a mortality of 25 per cent.

I may here just mention that, as Dr. Playfair's cases were not instances of hydro- or pyo-salpinx, they were not pertinent to the discussion. It is wholly unreasonable to mix up operations for removing the appendages for bleeding myoma, cases of Battey's operation with operations for hydro- and pyo-salpinx. The principles and details of the operations are as distinct as those of lithotomy and cleft palate.

The objection raised by Dr. Routh, that these operations unsex the patient, has been met so frequently that I am astounded to see it appear again. It is wholly untrue, and even if it were true, I venture to say that any man who would refuse to grant his wife relief from the risks and agonies of pyo-salpinx, because she would no longer gratify his lust, would deserve a name I do not choose to write.

I am, &c.,
LAWSON TAIT.

Birmingham, May 10th, 1884.

[We quite agree in thinking the objection that the operation "unsexes" the patient, an absurd one.

ED. *Medical Times.*]

INVENTIONS AND IMPROVEMENTS.

MELLIN'S FOOD FOR INFANTS AND INVALIDS.

THIS food has for years been favourably known to the profession, and been used with the best success in cases of infantile dyspepsia, in which less thoroughly malted foods were found to disagree. The secret of its success is its complete solubility. The food forms, when treated with water, a fairly clear solution, very pleasant to the taste, and a recent analysis by Mr. Wigner shows that nearly 87 per cent. of it consists of dextrose, dextrine, and maltose, soluble in cold water, while 5·43 per cent. consists of albuminoid matters. We have found Mellin's food, in all but a few cases, well borne by infants at all ages. In the earlier months, and in the case of very delicate children, it should be commenced cautiously, and the quantity gradually increased. When given in this way, it will be frequently found to serve not only as an additional element in the food supply, but also to assist in the digestion of the other elements of the dietary.

BING'S SOLUBLE ESSENCES OF GINGER AND LEMON.

Messrs. Bing & Son, of Canterbury, have sent us samples of their soluble essences of ginger and lemon, which are largely used by them in the preparation of effervescent drinks. The essence of ginger is a clear bright preparation, with the true ginger aroma, and has been certified by competent analysts to be prepared from ginger of good quality, and to be free from any adulteration with capsicum or other deleterious principles. It contains mere traces of resinous matter, and is in consequence very soluble in water. The same may be said of the lemon essence, which is free from adulteration and completely soluble in water charged with carbonic acid gas. The beverages prepared by Messrs. Bing from these essences are, as might be expected from the results of the analyses, clean-tasting and palatable.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th instant, and, when eligible, will be admitted to the pass-examination, viz.:—Messrs. H. A. Pope and P. H. Hensley, students of King's College Hospital; C. S. B. Cox, H. A. Sansom, and Leonard Wilde, of St. Thomas' Hospital; Cyrus Legg, of Guy's Hospital; E. P. France and H. E. L. Canney, of University College Hospital; F. W. Ord, of the Glasgow School; E. W. Crossley, of St. Bartholomew's Hospital; W. G. Pridmore, of the Middlesex Hospital; and H. W. Scratchley, of St. Mary's Hospital. Four candidates having failed to acquit themselves to the satisfaction of the Board of Examiners were referred to their anatomical and physiological studies for three months, and one for six months. The following gentlemen passed on the 9th instant, viz.:—Messrs. W. L. Woolcombe, W. W. L. M'Lean, W. R. Duncker, A. J. Bennett, C. M. Hill, and F. G. A. Burns, of St. Bartholomew's Hospital; F. R. Farmer and William Bett, of Guy's Hospital; A. C. Dutt, C. J. Stanley, and Edward Somerset, of King's College Hospital; H. H. Mack and H. C. F. Crane, of the London Hospital; A. H. Vernon, of St. George's Hospital; A. P. Luff, of St. Mary's Hospital; Frank Savery, of University College Hospital; and W. W. Bell, of the Westminster Hospital. Six candidates were referred for three months, and one for six months. The following gentlemen passed on the 12th instant, viz.:—Messrs. J. O. Jones, F. S. Arnold, A. L. Morgan, Ernest Barrett, and P. J. F. Lush, of St. Bartholomew's Hospital; S. F. Holloway, of Guy's Hospital; T. W. M. Longmore, C. R. Blakiston, and J. M. Rees, of King's College Hospital; C. H. Cosens, F. G. Connolly, and W. T. Mould, of the London Hospital; E. D. Shirtleff, of St. Thomas' Hospital; P. L. M. C. Pound and R. F. Reading, of the Middlesex Hospital; and F. S. Lambert, of the Westminster Hospital. Seven candidates were referred for three months. The following gentlemen passed on the 13th instant, viz.:—Messrs. A. W. Laing, F. G. T. Fox, E. J. Nixon, and E. G. Cook, of St. Bartholomew's Hospital; F. B. Morse, H. W. Rickards, K. N. Bahadhurji, and E. B. Randall, of University College Hospital; George Murray, of St. Mary's Hospital; J. D. Ballance and Henry Hudson, of St. Thomas' Hospital; F. P. Sarjant, of Guy's Hospital; Alfred Darlow and T. N. Greeves, of King's College Hospital; A. H. Barker, of St. George's Hospital; James Moore and Percival Smith, of the London Hospital. Six candidates were referred for three months, and one for six months. The following gentlemen passed on the 14th instant, viz.:—Messrs. G. P. Brownlow, C. B. Pym, and Thomas Pye, students of St. Bartholomew's Hospital; A. B. M. Howard and T. A. Brice, of King's College Hospital; J. C. Morgan of the London Hospital; P. C. E. D'Erf-Wheeler, of St. Thomas' Hospital; H. F. Herring and E. F. Bour, of University College Hospital; W. N. Risdon and J. A. Wheeler, of Guy's Hospital; Charles Batchelor, of St. Mary's Hospital, and Henry Browne, of the Middlesex Hospital. Two candidates were referred for three months, and one for six months. One hundred and seventy-seven candidates presented themselves for the examination just completed, as compared with 196 at the corresponding period of last year; of this number 49 were referred for three months and six for six months, making a total of 55 referred candidates.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 8th, 1884:—

Clarke, James Fernandez Howard, 23, Gerrard Street, Soho, W.
Crisp, James Ellis, Lacock, Wilts.
Kiddle, Thomas, Ellore, Godavery District, Madras.

Royal Colleges of Physicians and Surgeons, Edinburgh.—*Double Qualification.* The following gentlemen passed their first professional examination during the April Sittings of the Examiners:—

Robert Archer Nesbitt, Belfast; William Gregory Davies, Lindfield, Sussex; William Henry Clark, Aylesbury; Benjamin Allen Maturm, Lymington; William Arthur Powel, London; Richard Harrison, Yorkshire; Samuel Blackwell Fenn, Somersetshire; Nathaniel Ingram Edghill, Demerara; Edward James Sheppard, Walberton, Sussex; Richard Kelly, County Longford; Albert Edward Tunstall, Durham; Alexander O'Reilly Blackwood, Belfast; William John Morton, New South Wales; James Edmund Leach, Rochdale; David Denholm Black, Cockburnspath; James St. Johnston, Birmingham; Richard Arnold Johnston, Belper; Allan Mill, Bushmills; Joseph Sandback Scott, Manchester; Frederick Buckham, Hereford; Alfred William White, Hawsker; George Thomas Smith Hughes, Doncaster; John Wingfield, St. Petersburgh; Louis Emile de Boucherville, Mauritius; William Henry Carter, Tiverton; James McGaw, County Down; Edwin Priestley, County Down; William Beale Marston, London; Robert John Willis, County Armagh; Hervie Theophile Dardier, Lyons; John Connell, Cork; John Thomas Haworth, Yorkshire; James Whitelaw Alexander, Lanarkshire; Morgan John Morgan, Carnarvonshire; Edwin Evanson Jones, Flintshire; John Edgar Tisdall, Castletown, Berehaven; Anthony Daly Dunn, Canterbury; Alfred Henry Whittell, Plymouth; James Thornhill Woodhouse, Stockport; Henry Powell, Curraleigh; Robert John Beacone, County Tyrone; James Williamson Patrick, County Cavan; Clarence Beesley, Southsea; Thomas Godley, Kerry; Duncan Robert Macdonald, Edinburgh; Arthur Fowell Turner, Wiltshire; Patrick Austin Moriarty, County Kerry; David Davies, Abingdon; Robert Thomson Paton, Edinburgh; Vincent Peter Mart, Salford; Devereux Gwynne Hughes, Llandilo, South Wales; Michael Fitzgerald, Ballynaly; Frank Reginald Longden, Geelong, Australia.

The following gentlemen passed their final examination, and were admitted L.R.C.P. Edin., and L.R.C.S. Edin., in April and May:—

George Todd, Manchester; Charles Burland, Isle of Wight; Frank Laird, Aberdeen; Frederick William Salter, Yorkshire; Lewis Gordon Lawson, Morayshire; John Scott Haldane, Edinburgh; Ernest Evan Llewellyn, London; John Leslie Clarke Cox, Rock Ferry; Richard James Sadlier Wheeler, Clonakilty; Hugh St. David Griffiths, Cheltenham; Sydney Morse, Crewkerne; Henry Robert Heather Bigg, London; Cyril Somerset Earle, Manchester; Robert Balfour Graham, Berwickshire; Herbert William Gibbs Doyne, Bournemouth; James Joseph Wandlass Pearcey, Southwick, Durham; Michael Domville Hart, Jamaica; Alfred Edward Drury, Dublin; Harold Arthur Tuxford, Boston; John Joseph McNulty, County Roscommon; Alexander McKerlie, Glasgow; Alexander Ernest George Langschmidt, Cape of Good Hope; Edward Campbell Hearne, County Mayo; Hugh Griffith Hughes, Holyhead; Henry Goodwyn, Lucknow; Percy Sprague Oram, Ashton-under-Lyne; George Vincent Fourquemin, Glasgow; Richard Hugh Brew, County Clare; William Griffith Evans, South Wales; Philip Edmund Perot, Demerara; Walter Wignall, Skipton-in-Craven; Thomas James Randolph Clarkson, East Cowton; Griffith Gryffydh Jones, Anglesey; Francis William Robert Scott, County Down; John Francis Thomson; Linlithgowshire; Bouverie Francis Primrose McDonald, Edinburgh; John Nicholson Constable, County Mayo; John Kenaz Goodall, Nottingham; Colin Campbell McFarlane, Victoria; Crosbie Bagnall Harvey, County Wexford; David Gibson Inksetter, Copetown, Ontario; John Thomas Jones, Holywell, N. Wales; John Williams Jones, Carnarvon, N. Wales; Evan Jones, Llansawel, S. Wales; James Warnock Elliott, Carrickfergus; Arthur Edward Newbery Browne, London; George McClean, County Monaghan; Henry William Faulkner, Monmouthshire; William Gregory Davies, Lindfield, Sussex; William Disbrow Brydone-Jack, New Brunswick; Samuel James Camac, Dervock; Thomas Kean, Galway; John Winchester Speer, Belfast; William Parklynn, County Derry; Vincent Octavius Taylor, Mauritius; George William O'Flaherty, County Galway; David Gilbert Donaldson, Perthshire; Charles Alfred Mitchell, Yorkshire.

Royal College of Surgeons, Edinburgh.—The following gentlemen passed their first professional examination during the recent Sittings of the Examiners:—

Henry Hugh Williams, Holyhead; Arthur Edward Nevins, Liverpool; Walter Smithies, Clitheroe; John George Uppleby, South Africa; Ernest Edmund Taylor, Manchester; Robert Sinclair Smith, Edinburgh.

The following gentlemen passed their final examination, and were admitted L.R.C.S. Eng. :—

Robert Henry Blaikie, Edinburgh; Skene Keith, Edinburgh; John Thomarson, Carlisle; William Kirman Pauli, Lincoln; Robert Smailes, Whitby; Kolapurvala Jamsetjee Framjee, Kolapur, India; Samuel Garland Sharpe, Norwich; Charles Gilroy King, Pollockshaws; James Charles Francis Whicher, Gosport.

The following gentlemen passed their first professional examination for the licence in Dental Surgery :—

Leonard Latham Wilde, Winchester; and James Leslie Fraser, Inverness.

The following gentlemen passed their final examination, and were admitted L.D.S. Edin. :—

James Graham Munro, New York; and Alfred Henry Thomas, Chester.

King and Queen's College of Physicians in Ireland.—The following Licentiates in Medicine of the College, having complied with the By-laws relating to Membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College :—

James B. Barry, Licentiate of Medicine, 1870, Kilbeggan, county Westmeath; Maurice John O'Connor, Licentiate of Medicine, 1877, Sydney, New South Wales.

At the monthly examinations for the licences to practise Medicine and Midwifery, held on Monday, Tuesday, Wednesday, and Thursday, May 5th, 6th, 7th, and 8th, the following candidates passed :—

For the licence to practise Medicine—

Ernest Wickham Barnes, Liverpool; Henry Talbot Baylor, Fermoy; William Clifford, Thomastown, Kilmallock; Myer Akiba Dutch, Crewe; Francis Carleton Evans, Ballynahinch, county Down; James William Grene, Dalkey, county Dublin; Thomas Archibald Guinness, Kilburn, London, N.W.; Mary McGeorge, Newry, county Down; Matthew Macnamara, Limerick; Edward James Minchin, Dublin; Thomas Pierse, Wexford.

For the licence to practise Midwifery—

Robert Alexander Barber, M.D., R.U.I., Poyntzpass, county Armagh; Henry Talbot Baylor; Myer Akiba Dutch; Francis Carleton Evans; James William Grene; Thomas Archibald Guinness; Mary McGeorge; Matthew Macnamara; Charles Henry Maher, Sydney, New South Wales; Patrick O'Gorman, M.D., R.U.I., Bilston, Staffordshire.

Royal College of Surgeons in Ireland. — The College held a meeting on the 6th inst., pursuant to charter, to elect examiners for the ensuing year, when the following gentlemen were elected, viz. :—Examiners to examine candidates for Letters, Testimonial and Fellowship—Messrs. Edward A. Stoker, Edward S. O'Grady, Henry Gray Croly, William Thompson, Robert S. Swan, Wm. Fraser, Benjamin G. M'Dowel, and Phineas S. Abraham. Examiner in Ophthalmology—Arthur H. Benson, Esq. Examiners to examine candidates for the Diploma in Midwifery—Messrs. Henry Croly, John J. Cranny, and Edward J. Quinan. Examiners to examine candidates in General Education—Messrs. Henry J. Tweedy, Frank J. Davys, and Robert Morton.

The Library of the Royal College of Surgeons will be closed to-day (Friday, May 16th), for the purposes of the examinations.

University of London.—The annual meeting of convocation was held on Tuesday, but there were no matters of specially medical interest under discussion.

Outbreak of Typhus in Asia Minor.—An epidemic of typhus has broken out at a village near Smyrna.

Metropolitan Free Hospital.—The annual festival dinner was held, under the presidency of the Lord Mayor, on Tuesday, and resulted in an addition to the funds of the charity of nearly 4,000*l.*

Scarlatina at Waterford.—A serious outbreak of scarlatina is reported at Waterford, and the Fever Hospital is said to be crowded to excess.

Charitable Bequests.—Mr. Oxley English, who died on March 7th last, has bequeathed 1,000*l.* to Charing Cross Hospital, 500*l.* each to the Middlesex Hospital and the West Norfolk and Lynn Hospital, and 200*l.* to the City of London Truss Society.

Royal Society of Edinburgh.—At the last meeting of this Society, Professor Turner communicated a paper by Mr. Wynter Blyth, on the results of experiments made by him on the chief disinfectants of commerce, with a view of ascertaining their power of destroying the spores of anthrax bacillus.

The French Association for the Advancement of Science.—This body will hold its Thirteenth Annual Congress in the city of Blois, under the presidency of M. Bouquet de la Grye, Member of the Académie des Sciences, from the 4th to the 11th of September. At the last meeting of the Administrative Council of the Association, sums of money varying in amounts from 400 to 2,000 francs, and together exceeding 10,000 francs, were voted for the purpose of aiding in various scientific investigations.

Sanitary Institute of Great Britain.—At the annual general meeting held at the Parkes Museum of Hygiene on Wednesday, May 7th, Rt. Hon. Earl Fortescue in the chair, a report was presented by the Council on the progress of the Institute, and on the work achieved at the very successful Congress and Exhibition held at Glasgow in the autumn of 1883. The Chairman of Council, Dr. A. Carpenter, gave an address, and the officers for the ensuing year were elected, the president being His Grace the Duke of Northumberland, and the trustees Sir John Lubbock, Bart., D.C.L., F.R.S., Thomas Salt, Esq., M.P., and Dr. B. W. Richardson, F.R.S.

Army Medical Department.—Surgeon R. H. Gardner, of the Army Medical Department, has been appointed to take medical charge of the Headquarters Staff and Departments of the Army of Occupation at Cairo, *vice* Surgeon-Major Connolly. Deputy Surgeon-General S. C. Townsend, C.B., of the Bengal Army, and Deputy Surgeon-General W. B. Beatson, M.D., of the Bengal Army, to be Surgeons-General. Brigade-Surgeon J. R. Jackson, M.D., of the Bengal Army, to be Deputy Surgeon-General; Surgeon-Major W. P. Kelly, of the Madras Army, to be Brigade-Surgeon.

The Late Dr. Angus Smith.—Dr. Angus Smith, F.R.S., whose death at the age of 67 is recorded, was well-known for his investigations, in conjunction with Sir Lyon Playfair, on the sanitary conditions of the Lancashire towns, and also for his inquiry into the action of carbonic acid on the circulation of the blood, by experiments made in an air-tight chamber. In conjunction with Mr. M'Dougall, he examined the action of disinfectants, and especially recommended carbolic or phenic acid, pure or in tar-oil. His special inquiries into the quality of the air of towns when polluted by gases from manufactures led to his appointment by the Board of Trade, under the Alkali Act of 1863, as Inspector-General of Alkali Works for the United Kingdom.

Port of London Sanitary Committee.—By a recent warrant of the Treasury, the limits of the Port of London have been greatly extended. Commencing above at Teddington Lock, they extend down both sides of the River Thames to an imaginary line drawn from Navingore Creek on the north side, to the land's end at Warden Point, in the Isle of Sheppey, on the south side, including both sides of the Medway; as far as a line drawn from Colemouth Creek to Stangate Creek, from there to Swale Church, and from thence to Elmly Chapel, in the Isle of Sheppey, with all streams, docks, basins, creeks, islands, &c. The result of this warrant is to place under the jurisdiction of the Port Sanitary Committee of the Corporation of London an additional district of from 20 to 30 miles in length, and including the important ports of Sheerness, Queenborough, and Port Victoria.

Medical Education in Canada.—A writer in the *New York Medical Record* (March 8th) speaks in the highest terms of the superior kind of medical education that is pursued in Canada. He states that for some time past it has shown a distinct tendency to a practical character, the powers of observation being strongly brought into play. "From a somewhat extended acquaintance with the state of medical education in the United States and Great Britain, we cannot but think that Canada compares very favourably with both. It must be admitted that such old and large centres as Edinburgh, London, New York, and Philadelphia have advantages peculiarly their own. Yet when we look at the advantages and disadvantages to medical education in Canada, at the careful manner in

which both theoretical and practical teaching is given, and at the high standard fixed by the different curricula, it must be admitted that these schools are turning out a very efficient class of practitioners."

Medical Students in Italy. — In the "Statistical Report on Public Instruction during 1880–81," recently published, it is stated that the twenty-one Royal Universities, the four Free Universities, the three University *corsi* attached to the Lyceums, and the eight Special Superior Schools, together mustered, in 1880–81, 13,387 students, of which number 5,338 (40 per cent.) were medical students. There were 661 diplomas accorded during the year. The proportion of examined students who passed was 79·9 in the Royal Universities and 96·5 in the Free Universities. There were also attached to the Universities, Schools of Pharmacy, with 889 students; of Obstetrics, with 370; and of Veterinary Medicine and Phlebotomy, &c., with 99 students. Of the number of obstetrical and veterinary students attending schools unattached to the Universities no return is given.—*Annali Universali di Medicina*, March.

Sanitary Assurance Association.—At a meeting of the Council of this Association, at 5, Argyll Place, Regent-street, W., on Monday, May 12th, Sir Joseph Fayrer, F.R.S., in the chair, a discussion took place on the International Health Exhibition, in connection with a letter from Mr. H. Rutherfurd of The Temple, and on the motion of the Chairman, seconded by Lieut.-General Burne, C.B., it was resolved, "that the Medical Officer, Dr. James Stevenson, and the Sanitary Surveyor, Mr. Mark H. Judge, A.R.I.B.A., be instructed to visit the various departments of the Health Exhibition, connected with the drainage and water supply of dwelling-houses, for the purpose of reporting on the same to the Council and Members of the Association." The following resolution was also passed, on the motion of Mr. Barrington Kennett, seconded by Mr. Mark H. Judge, "that certificates be given to builders and plumbers who, having executed sanitary works under the direction and supervision of the Association, have completed the same to the satisfaction of the Medical Officer and the Sanitary Surveyor." At the same meeting it was decided to inspect and certify the sanitary condition of hotels of moderate size in any part of England on the same terms as private houses.

Glasgow District Asylum, Bothwell.—Dr. Sibbald, one of Her Majesty's Commissioners in Lunacy, in his report on the Bothwell Asylum, observes that most of the patients discharged had been found permanently fit for liberation. Though the number discharged continued to be exceptionally high, it might be inferred from the small proportion readmitted that due care was taken in selecting these patients. It resulted from the care that was taken not to detain patients after asylum treatment had ceased to be necessary, that the average length of residence for a patient in this asylum was between twelve and thirteen months, instead of being, as is the case in many asylums, more than three years, and in some asylums more than four years. It was evident that if such prolonged detention were the rule in this asylum, with its admission rate of about 160 per annum, an asylum not for 180 inmates, but one for 480 or 640 would be required, involving a great additional burden on the assessment of the district, and the unnecessary detention of from 300 to 460 persons.

The Prizes of the Belgian Academy of Medicine. —The following subjects have been announced for competition:—(1) Examine the influence of the nervous system on the urinary secretion, basing the observations especially on personal researches, 800 francs; essays to be sent to the secretary of the Academy on or before February 15th, 1885. (2) Determine by new experiments and applications, the degree of utility of spectral analysis in investigations in legal medicine, and medical police, 1,500 francs, 1st April, 1886. (3) Determine experimentally the influence which desiccation, employed as a means of conservation, exerts on medicinal simples of the vegetable kingdom, 600 francs, 1st July, 1885. (4) The physiological influence of abstractions of blood, whether local or general, and their indications and contra-indications in the treatment of disease, 1,500 francs, 31st December, 1885.

Medical Sickness, Annuity and Life Assurance Society.—It was reported at the last meeting of the Medical Sickness, Annuity, and Life Assurance Society, that the fund had already a position at which the numbers of members entered ensured the solidity of the society; and that there was an adequate margin, according to actuarial allowance, for the working expenses, which had hitherto been kept down to an unusually low point, and this would continue to be so. Arrangements were at the same time made for bringing the objects of the Society under the notice of the President and Secretaries of branches, with a request that they would submit them to the notice of members at forthcoming branch meetings; and communications were received from Mr. Brierley (Manchester), and Mr. Ravenhill (Birmingham), announcing the intention of taking early steps, as requested, to form local committees in those two great towns from existing members and others. It was resolved also that all members joining before the end of May, should rank as foundation members, and be entitled to the accruing advantage in respect to the date at which they would be free to receive the benefits of assurance. The whole of the preliminary expenses, up to date, were provided for, and written off, leaving the management fund untouched.

Dr. Vincent Richards' Experiments with Cholera Alvine Evacuations.—Dr. Richards having failed in obtaining any positive results from his experiments upon dogs with cholera evacuations, fortunately bethought himself that the pig would probably prove a more suitable animal for this purpose; and in the *Indian Medical Gazette* for April he summarises the results. These are remarkable and important, inasmuch as they show that the cholera evacuations contain what proves for this animal to be, under some circumstances, a deadly poison, analogous in its operation to the venom of snakes. The evacuations seem to lose their toxic power by decomposition, but whether the poison is given off or destroyed is, at present, uncertain, although the probabilities are much in favour of the latter supposition. At the present stage of the enquiry, Dr. Richards lays down the following propositions:—(1) That choleraic evacuations, at certain stages of the disease, contain a most virulent poison. (2) If this poison finds its way into the stomach, it is absorbed, and proves rapidly fatal. (3) The principal action of the poison is to enfeeble and destroy the function of respiration. (4) The poison is not an organism, but of the nature of a chemical compound of a comparatively unstable nature. (5) It will probably be found to be easy to destroy the power of the poison existing in the evacuations, in other words, to disinfect them. (6) Although the poison decomposes, it might by desiccation retain its powers for some considerable time. Hence, clothes, &c., stained with choleraic discharges, might be a source of danger. A later report states that Dr. Richards is inclined to regard the poison as a ptomaine or cadaveric alkaloid.

The Microbe of Yellow Fever again. — Not long since M. Rochard introduced to the notice of the Académie de Médecine the claims of M. de Lacerda as the discoverer of the microbe of yellow fever, and it now falls to his lot to bring forward those of a Brazilian physician, Dr. Domingo Freire, who has laid hold of another microbe, which he terms (*Union Médicale*, May 8) Cryptococcus xanthogenius. He has his preventive inoculations, too, and has operated upon some 400 persons, who have not died. It is true, indeed, that they have not as yet been exposed to the danger of an epidemic attack of the disease, so that the experiment can scarcely be regarded as complete. Dr. Rochard, in his report, expresses himself with judicious scepticism, and, while admitting that the discoverer, if all his pretensions are realised, will well deserve his statue, advises that the opening of a list of subscriptions be delayed until a few more convincing facts are adduced. The whole of the sitting of the Academy was occupied with the consideration of the microbe question in one form or another. The question, indeed, is fast threatening to become a pseudo-scientific nuisance, leading to the most hasty conclusions and impeding important researches.

NAPLES INTERNATIONAL HOSPITAL.—This hospital, the new wings of which, built under the superintendence of Mr. Samuel Young, will shortly be opened, has issued a very satisfactory report, so far as regards the increased amount of relief afforded, but less satisfactory in respect to finances. The number of patients admitted during 1883 was larger by 16 per cent. than in 1882. The patients newly admitted during 1883 were 182, of which the larger contingent was formed by Swiss, English, Germans, and Italians. Of 97 patients who were taken ill while passing through Naples, and admitted into the hospital, 31 were English sailors; most of whom paid at a reduced rate, and one was nursed and cured gratis. In consequence of the change of house, &c., a deficit of 31,700 francs has now to be provided for, and the committee trust—considering the increase of patients and gratuitous consultations (given to 316 persons, of whom 42 were English mariners), which have more than trebled since 1878, when the hospital was founded—that many societies and private persons who have profited by the institution may become liberal subscribers in future, and help the hospital through the critical financial period which it has now to overcome.

THE FRENCH HOSPITALS AND HOSPICES. — These two kinds of establishments amount in number to 1,580. In the provinces a great many beds are empty, while in Paris their number is insufficient, which, as regards the hospitals, it would not be, or only to a slight extent, if chronic cases were excluded. The 8,284 beds in the hospices of Paris are not sufficient with respect to their special destination, the number of registered aged persons who await their turn being more than 2,000. To each of these the Municipal Council distributes one franc per diem, by means of the *bureaux de bienfaisance*, but with even this aid the charge remains too heavy for the families of these poor persons. It has been suggested that aged persons should be sent to occupy the beds in the provinces, but the administration fears that such an exile so far from their families would be very distressing to them, and would deprive them of many little comforts which they now receive. Moreover, the payments which would have to be made would often be much higher than is generally supposed, as for example at the Asylum of St. Reine, where a charge of 3½ francs per diem is demanded for the sick and convalescent, while the charge at Paris is only 2 francs 30 cents. The Assistance Publique has therefore resolved to erect some new hospices in the environs of Paris, and with this intention has just acquired the Chateau Boissy, St. Léger, near Vincennes.—*Gazette Hebdomadaire*, May 9th.

APPOINTMENTS.

BINDLEY, V. N., M.R.C.S., L.S.A.—Assistant Surgeon to Her Majesty's Convict Prison, Dartmoor.

BREWSTER, W., M.R.C.S., L.S.A.—Resident Medical Officer to the York Dispensary, *vice* J. O. Horden, M.B., resigned.

BUCK, L. A., M.R.C.S.—Ophthalmic Clinical Assistant to King's College Hospital.

CASSAL, CHARLES E., F.I.C., F.C.S.—Public Analyst for High Wycombe.

CHEVES, J. T., M.R.C.S.—House Surgeon to King's College Hospital.

CHILDE, C. P., M.R.C.S.—House Surgeon to King's College Hospital.

ELLIS, HYACINTH D'ARCY, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer to the Second Kingswinford District, Stourbridge Union.

HASELL, E. S., L.S.A.—Assistant House Accoucheur to King's College Hospital.

HODGSON, G. G., M.R.C.S.—Assistant House Physician to King's College Hospital.

JAMIESON, W. A., M.D., C.M., F.R.C.P.—Extra Physician for Diseases of the Skin, Royal Infirmary, Edinburgh.

LILBURNE, J. T., B.A., M.R.C.S.—Physician Accoucheur's Assistant to King's College Hospital.

MCGACHEN, F. W., L.F.P. & S. Glas., L.S.A.—Medical Officer to the Fifth District, Newport Pagnell Union.

MORRISON, J. T. J., B.A., M.B.—Resident Surgical Officer to the General Hospital, Birmingham.

NISBET, J. T., M.B., C.M.—Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

SHORT, T. S., M.R.C.S.—Physician's Assistant to King's College Hospital.

SPICER, FREDK., M.B., M.R.C.S.—Resident Medical Officer to the Royal Free Hospital, Gray's Inn Road, *vice* F. Norvill, M.B., M.R.C.S., resigned.

TATHAM, C. J. W., M.R.C.S., L.S.A.—Assistant Medical Officer to the Warneford Asylum, Oxford.

TURNER, N. H., M.R.C.S.—Assistant House Surgeon to King's College Hospital.

WILLIAMSON, RICHARD F., B.M. & M.C. Edin.—Medical Officer to the Langwathby District, Penrith Union.

WRIGHT, C. J., M.R.C.S.—Assistant Surgeon to the Hospital for Women and Children, Leeds.

VACANCIES.

BIRMINGHAM GENERAL HOSPITAL.—Resident Assistant Surgical Officer. (*For particulars see Advertisement.*)

DENBIGHSHIRE INFIRMARY, DENBIGH.—House Surgeon. Salary to commence at £85 per annum, with board, residence and washing. Candidates must be duly qualified. Conversant with the Welsh language. Applications to be sent to the Secretary, on or before June 5th.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, &c. Candidates names must appear upon the Medical Register as being possessed of a medical and surgical qualification, and they must produce evidence of good moral character. Private practice strictly prohibited. Applications, with testimonials, to be sent to the Secretary, on or before June 11th. The election to take place on June 18th.

GREAT NORTHERN CENTRAL HOSPITAL, CALEDONIAN ROAD, N.—Ophthalmic Surgeon. (*For particulars see Advertisement.*)

METROPOLITAN ASYLUMS BOARD.—Medical Superintendent. (*For particulars see Advertisement.*)

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Pathologist, &c. (*For particulars see Advertisement.*)

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK STREET, CAVENDISH SQUARE.—Resident Medical Officer. Salary, £105 per annum, with furnished apartments, attendance, coals, and gas. Candidates must be registered, and hold a Medical and Surgical qualification. Written applications and testimonials, to be forwarded not later than May 19th, and candidates must attend at the Dispensary on May 21st, at 5 o'clock.

SUNDERLAND INFIRMARY.—Senior House Surgeon. Salary, £100 per annum, with board and residence. Candidates must possess double qualifications (registered). Applications, with testimonials, to be sent to the Chairman of the Medical Board, on or before June 2nd. The election will take place on June 12th.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

TOXTETH PARK TOWNSHIP.—Medical Officer for the Second District, in succession to Mr. Thomas Fox Morrish, resigned. Salary, £125 per annum.

DEATHS.

BAINBRIGGE, W. H., F.R.C.S., at Droitwich, on May 6th, aged 78.

CLARKE, W. F., M.D., F.R.C.S., of Southborough, Tunbridge Wells, at Bonchurch, on May 8th, aged 50.

COLLINS, W. J., M.D., at Albert Terrace, Regent's Park, on May 10th, in his 87th year.

GALE, H. S., M.B., at Manchester, on May 4th, aged 47.

MANSON, DAVID, M.A., C.M., M.D., at Eaglestone, Strathpepper Spa, N.B., on May 9th, aged 45.

MAY, GEORGE, F.R.C.S., at Sidmouth House, Reading, on May 8th, aged 85.

PINK, H. N., M.R.C.S., at Crooms Hill, Greenwich, on May 5th, aged 67.

TWINING, EDWARD, M.R.C.S., at The Chestnuts, Walthamstow, on May 12th, aged 68.

WURTZ, M., Professor of Chemistry, and formerly Dean of the Faculty of Medicine of Paris, on May 12th, in his 87th year.

NOTES, QUERIES, AND REPLIES.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Would you allow me to apologize to those gentlemen whose letters were accidentally returned by the Porter, and to ask them if they would kindly communicate with me again.

I am, Sir, yours, &c.,

3, *New Inn, London. W.C.* JAMES ROCHEID FORREST,
May 13th, 1884. Hon. Secretary.

COMMUNICATIONS RECEIVED—

MR. A. E. EKINS, F.C.S., St. Albans; MR. L. HOFF, London; THE DEAN OF THE MEDICAL DEPARTMENT, KING'S COLLEGE, London; THE REGISTRAR-GENERAL, Edinburgh; Dr. DALY, London; THE SECRETARY OF THE CLINICAL SOCIETY, London; THE SECRETARY OF THE HOSPITALS ASSOCIATION, London; THE SECRETARY OF THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS, London; Messrs. ALFRED REED & CORNEY GRAIN, London; THE REGISTRAR-GENERAL FOR QUEENSLAND, Brisbane; THE SECRETARY OF THE SANITARY ASSURANCE ASSOCIATION, London; Dr. HENRY BULLOCK, London; THE MEDICAL OFFICER OF HEALTH, PORT OF LONDON; Dr. WILLOUGHBY, London; Dr. C. MERCIER, Dartford; Dr. CLIFFORD BEALE, London; Dr. DONKIN, London; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. I. W. VICKERS, London; Dr. ALTHAUS, London; THE SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; Messrs. WOOLLAMS & CO., London; THE SECRETARY OF ST. MARY'S HOSPITAL, London; Dr. MACCALL, London; THE PRESIDENT OF THE PHARMACEUTICAL SOCIETY, London; THE REGIUS PROFESSOR OF MEDICINE, UNIVERSITY OF CAMBRIDGE, Cambridge; Dr. BURNEY YEO, London; Mr. MAKUNA, Pontypridd; Mr. LAWSON TAIT, Birmingham; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. E. WOOTON, London; THE SECRETARY OF THE SANITARY INSTITUTE OF GREAT BRITAIN, London; THE HON. SECRETARY OF THE WEST LONDON MEDICAL SOCIETY, London; THE SECRETARY OF THE MEDICAL LIFE ASSURANCE SOCIETY, London; Messrs. J. HALL & CO., Stourbridge; Messrs. T. BRADFORD & CO., London; Dr. ISAMBARD OWEN, London; Mr. BANKS, Liverpool; Mr. WYNTER BLYTH, London.

BOOKS RECEIVED—

Die Entstehung der Menschlichen Rachendiphtherie, von Dr. Med. Max Taube—Annual Report of the Royal Edinburgh Asylum for The Insane for the year 1883—On the Poison contained in Choleraic Alvine Discharges, by Vincent Richards, F.R.C.S. Eng.—Addresses, &c., at the one hundredth Anniversary of the Foundation of the Medical School of Harvard University—Circolazione del Sangue, del Dott. Antonio Curci—Quarterly Return of the Births, Deaths, and Marriages register in Scotland, for the quarter ending March 31st, 1884—Report on the Sanitary Condition of the Whitechapel District for the quarter ended March 29th, 1884—The Student's Guide to Systematic Botany, by Robert Bentley, F.L.S., M.R.C.S.—Seize Années de Pratique Médicale a Contrexeville, par le Dr. Debout D'Estrées—Regional Surgery, Part ii., by F. A. Southam, M.A., M.B., F.R.C.S.—Histological Notes, by H. Horscraft Waters, M.A. Transactions of the Obstetrical Society of London. Vol. xxv.—Die Entstehung des singenden diastolischen distanzgeräusches am Ostium Aorticum, Von Dr. Groedel—The Diseases of Infancy and Childhood by Dr. C. West—Albumen and Sugar Testing, by Dr. Geo. Johnson, F.R.S. — Provisional Report on Healing of Arteries after Ligature, by Dr. J. Collins Warren—The Utility and Morality of Vivisection, by G. Gore, LL.D., F.R.S.—Materia Medica and Therapeutics, by J. Mitchell Bruce, M.A. Aberd., M.D. Lond.—London Municipal Government—Opinions of the Press, No. VI.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—Société Médicale—Popular Science News—Journal of Cutaneous and Venereal Diseases—The Yorkshire Post, May 8th—Canada Medical and Surgical Journal—The Australasian Medical Gazette—The Freeman's Journal—The Canada Lancet—The Dominion Sanitary Journal—The Medical World.

APPOINTMENTS FOR THE WEEK.

Friday, May 16 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m., Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m.—Prof. Odling, "The Dissolved Oxygen of Water."

Saturday, May 17.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Professor Bonney, "Microscopical Geology."

Monday, May 19.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK, 5 p.m.—Dr. Julius Althaus, "The Causes of Locomotor Ataxy."

Tuesday, May 20.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 p.m.—Dr. Warren Tay and Dr. Stephen Mackenzie, "Bromide of Potassium Eruption," with microscopical sections; Dr. Charlewood Turner, "Cerebral Aneurysms from two cases of Cerebral Hæmorrhage;" Dr. Percy Kidd, "Some unusual cases of Pulmonary Aneurysms;" Dr. Sharkey, (1) "Multiple Stricture of the Small Intestine;" (2) "A Case of Cystic Squamous Epithelioma" (card); (3) "Stricture of Stomach and Œsophagus, with Atrophy of Stomach" (card); Dr. Hadden, "Symmetrical Aneurysm of Middle Cerebral Arteries;" Mr. Chavasse, (1) "Tumour of petrous portion of Temporal Bone;" (2) Tumour of Skull" (card); Mr. Shattock, (1) "Congenital Malformation of Heart;" (2) "Unusual condition of Hydrocele Fluid" (card); Mr. Parker, "Congenital Talipes Calcaneo Valgus;" Dr. Barlow, "Drawings of a case of Congenital Xanthelasma;" Dr. Silcock, "Cancer of Prostate, with Secondary Ossific Deposit in Cranium and Femur;" Dr. Payne (for Dr. Handfield Jones), "Preparations of Pale and Red Clots in Cerebral Arteries;" Mr. Lockwood (for Surgeon Trevan, R.N.), "Chyluria, with Filariæ in the Blood and Urine" (living); Dr. Hobson, "Malignant Disease of Cæcum" (card); Mr. Morgan, (1) "Extensive Calcareous Deposit in Pleura" (card); (2) "Perforation of Occipito-Atloid Articulation of Cerebellum" (card); Dr. Hebb, (1) "A Sponge-like Liver" (card); (2) "The Muscular Nerves and Spinal Cord in Diphtheritic Paralysis" (card); (3) "Tubercle in the Wall of the Heart;" Mr. Lane, (1) "Tumour of the Bladder" (card), (2) "Partial Mollities" (card); Dr. Hale White, "Left Inferior Vena Cava" (card); Mr. J. Poland, "Suppurative Arthritis of Infants" (card).

ROYAL INSTITUTION, 3 p.m.—Prof. Gamgee, "Nerve and Muscle."

Wednesday, May 21.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

THE HOSPITAL ASSOCIATION, 8 p.m.—Third General Meeting, at 11, Chandos Street, Cavendish Square, W. Mr. Henry C. Burdett will read a Paper entitled "How can the Hospital Sunday and Saturday Funds be made more useful to the Hospitals?"

Thursday, May 22.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m.—Prof. Dewar, "Flame," &c.

Friday, May 23.

CLINICAL SOCIETY OF LONDON.—Mr. Wm. Anderson, "A Case of Pyelo-lithotomy;" Dr. Finlay, "Sequel to a Case of Aortic Aneurysm;" Mr. Golding Bird, "Two Cases of Hernie en bissac;" Dr. F. Taylor, "A Case of Impaction of Bone in the Larynx;" Mr. B. Roth, "Uncommon Lateral Curvature of Spine, with extreme Osseous Deformity" (living specimen).

ROYAL INSTITUTION, 8 p.m.—Mr. D. Gill, "Distances of Fixed Stars," &c.

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MEDICAL TIMES

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REMARKS ON A CASE OF TUBERCULAR TUMOUR AT THE BASE OF THE PONS.[1]

By Professor NOTHNAGEL.

GENTLEMEN,—I have already shown this man to you on account of pleurisy on the left side. I propose now to discuss other symptoms which he presents. Eight weeks ago he had a sensation of itching in the right arm and leg; a sensation combined with some weakness of the muscles. He can move the left arm better than the right, and the grip of the left hand is stronger than that of its fellow. We can hardly say that there is paralysis of the right extremities, but, at any rate, one cannot deny that there is paresis of those parts. You see, moreover, that the left facial nerve is paralysed; the eye-ball does not move when the patient looks to the left side; hence we diagnose also paralysis of the left abducens. When we ask the patient to press his teeth together the parts on the right side project much more than those on the left, the right masseter contracting more forcibly than that of the other side. The portio minor trigemini is therefore paralysed too. The tongue deviates a little to the left, and this proves that the right hypoglossal nerve is suffering from paresis. Besides these symptoms the patient has difficulty of articulation; he cannot pronounce the labial and lingual letters distinctly. We find, too, hyperalgesia of the whole right side of the body. The case therefore is one of crossed cerebral paralysis.

This kind of paralysis has been described by Gubler under the name of "paralysie alterne," but he described only the crossed paralysis of the extremities and the facial nerve. We now know, however, that not only the nerves of the extremities and the face may be affected by such a condition, but that other cerebral nerves are also subject to it. Thus there may be paralysis of the oculomotor nerve on the one side, with paralysis of the extremities on the opposite side; or the abducens and the portio minor trigemini of one side may be paralysed, while the extremities are paralysed on the other side. For the last ten years we have regarded it as possible, though only speculatively, that a monoplegia may be met with in cerebral disease, that only one extremity, for instance, may be paralysed, and we should refer such a paralysis to an affection of the cerebral cortex. But that is only a theory; in reality such a phenomenon has not yet been observed, and, if we do not find an alternate paralysis of the extremities, we can, *a priori*, say, with great probability of being correct, that the cause of the disease is to be sought in an affection of the spinal marrow. From the physiological point of view, the lesion which produces a crossed paralysis must be situated in a place from which a paralysis of the extremities on one

[1] Communicated to the Imperial Royal Society of Physicians of Vienna.

side of the body, and a paralysis of a cerebral nerve on the other side, may arise at the same time. In such a case the affection can only be situated in those parts of the central nervous system where such a paralysis can take its origin, though the lesion may be of no great extent. Such points are to be found either in the medulla oblongata, or in the pons, or at the commencement of the peduncles. We know, indeed, that the lesion which causes an alternate paralysis of the oculomotor nerve and the extremities, must be sought either in the commencement of the peduncles, or in the peduncular part of the pons, but the lesion is situated on the same side as that on which the oculomotor nerve is paralysed. Another sort of alternate paralysis is that affecting the facial nerve and the extremities. Here we draw the following conclusion : If the lesion is situated in the upper part of the pons, then it paralyses the facial nerve and the extremities on the same side ; but if its seat is in the lower part of the pons, then the paralysis is alternate, for the crossing of the facial nerve takes place in the pons, while the crossing of the nerves that supply the extremities occurs in the medulla oblongata. On a previous occasion I told you that in central paralysis of the facial nerve, its lower part only is affected, but in peripheral paralysis, all its branches are involved. We know, however, that the symptoms in alternate paralysis of the facial nerve are the same as those met with in the case of peripheral paralysis. Where there is complete paralysis, the electro-motor reactions are changed. We usually find, as Rosenthal has shown, a diminution of the Faradaic excitability, and sometimes degeneration reactions may be present, just as in peripheral paralysis. I would further draw your attention to the fact that the abducens is also paralysed. When this depends on an intra-cerebral lesion, you may presume that it occurs in the medulla oblongata itself, or at the base of the brain, the medulla oblongata or the pons being also involved. But there are also exceptions here, as in the case where there is loss of power in the lesser division of the fifth nerve, for this portion also takes origin in the pons or the medulla oblongata. We therefore draw the following general conclusion : If many cerebral nerves are affected, the disease arises from a lesion at the base of the brain, and not from an intra-cerebral lesion. In this case the following nerves are affected : The hypoglossal, the facial, and the lesser division of the fifth. Now, if the affection were situated in the medulla oblongata, or in the pons itself, it must be of some considerable extent, and, if this were the case, it would be very probable that the extremities would be affected in a higher degree than they are ; there would be not only paresis, but paralysis. The arm is not really paralysed, it is only slightly weak. The abducens and the fifth, however, are much more seriously affected. Therefore, as the affection of the cerebral nerves is of large extent, and as the affection of the extremities bears no proportion to that of the cerebral nerves, we conclude that the seat of the affection must be sought for at the base of the brain, in the posterior fossa. The lesion must be at the base of the pons, so that it presses upon the hypoglossal and the nerves of the extremities in the pons itself ; but upon the facial, the abducens, and the motor division of the fifth, when they are no longer intra-cerebral. Besides this, the pressure on the abducens and the lesser division of the fifth must be more marked than that on the facial nerve.

What kind of lesion have we in this case ? We must first take into consideration the fact that the above-mentioned symptoms have arisen under our observation in the hospital, and have gradually and slowly developed, so that it is certainly not a case of hæmorrhage. We must look out for an affection which developes itself gradually, and such affections are : tumours and chronic meningitis. There is no dilatation of the pupil, but the absence of this does not prove that the affection does not arise from a tumour, for it is probable that the tumour is small, otherwise death would have already occurred. If we exclude aneurysm of the basilar artery, to which Griesinger was the first to draw attention, our diagnosis is limited to that of tumour. Chronic meningitis may produce the same symptoms as tumour, but in this case we have no certain evidence of its presence. Excluding an injury, chronic meningitis is produced by the following causes : chronic alcoholism, syphilis, and tuberculosis. The patient says that he has not had syphilis, he has not been the subject of alcoholic abuse, and he presents no symptoms of tuberculosis. Nevertheless tuberculosis may possibly have developed as a result of pleurisy. Hence we diagnose tumour with a great possibility of being correct. What sort of tumour can it be ? He has not had syphilis, therefore it is probable that tubercle has developed in the locality mentioned above. There is no question of treatment here ; we shall give him from 30 to 45 grs. of iodide of potassium a day.

Verification of the Diagnosis.—At the *post-mortem* pleurisy on the left side was found. When the patient was alive, we did not perform paracentesis, as the cerebral symptoms had already attained a high degree, and we could not give a good prognosis. I diagnosed a tumour in the brain, and was disposed to consider it of tubercular nature on account of the pleurisy. We localised the seat of the tumour in the left part of the pons. The autopsy has verified the diagnosis. Diagnosis of the locality of a lesion is therefore possible with considerable probability of being accurate. You remember a case in which we diagnosed tubercle in the middle of the vermis, and it was actually found there in the *post-mortem* room. Since the experiments of Fritsch and Hitzig much attention has been devoted to the localisation of cerebral affections, especially of lesions situated on the surface of the brain. At present two parties are still opposed to each other as regards the possibility of localising lesions. One party, of which Munk is one of the chief, are of opinion that localisation is possible ; others are of an opposite opinion, among these Goltz, of Strasburg, is the chief representative. As to my opinion, I consider it possible to diagnose the seat of a cerebral affection in most cases with a high degree of probability. We can with certainty localise an affection in the posterior part of the left frontal convolution ; further, we can diagnose tumours in the right and left central convolutions. As to these divisions of the cerebral cortex, I am convinced, from the clinical stand-point, altogether apart from the physiological one, that lesions can be localised. We can even make diagnosis so precise as to determine whether the affection is to be sought in the middle or the lower part of the central convolutions ; nay, I think it possible that a localisation-diagnosis can be made in the paracentral lobule. Diagnosis as to the seat of lesions in the deeper parts of the brain is also possible. A lesion can be localised with certainty in the middle crura of the cerebellum, and the vermis ; and, under certain conditions, in the corpora quadrigemina, in the cerebral peduncles, in the posterior part of the internal capsule, in the pons, the medulla oblongata, and also round the aqueduct of Sylvius. Localisation is most difficult in the anterior parts of the brain. If you take into consideration the localities mentioned above, you will see that a great many nerves may be affected, and the combination of the symptoms renders it possible to make a diagnosis with certainty. You see that it was not difficult for us to diagnose the tumour in the pons. The disease developed itself gradually, therefore we diagnosed a

tumour. The possibility of a softening of the brain was given up, because the later course of the disease was against it. The course of the disease decided us to diagnose a tumour, though a very important symptom, namely, dilatation of the pupil was absent. The patient grew more and more stupid, every day he became weaker. If a large portion of the brain is affected, "atrophy of the brain may develop itself" as a consequence of this affection. In the case of our patient, we were driven to the conclusion that the lesion was of no great extent, and that it was in a place from which many nerves take their origin; we had to look for an affection in which it was possible for a secondary weakness of mind to take place without softening of the brain; and this, in fact, was possible in the case of tumour in the pons. The tumour, by pressing on the venæ Galeni, might cause effusion into the lateral ventricles, with consequent stupidity. This, indeed, was found to be the case, the ventricles containing a large quantity of serum. At the beginning of the affection the patient had also troubles of the sensory nerves, and this was an additional reason for diagnosing a lesion in the pons; for both in this affection and in the case of a lesion in the peduncles, the sensory nerves are more seriously involved than in affections which occur in the upper parts of the brain.

PATHOLOGICAL EXHIBITIONS.

By NORMAN CHEVERS, C.I.E., M.D., F.R.C.S., Eng.
President of the Epidemiological Society of London.

I CONSIDER that the practice, long since adopted by certain of our Medical Societies, of bringing the subjects of remarkable diseases to their meetings, might be imitated and largely extended with great advantage to science and to the cause of suffering humanity. I think that there are very few experienced medical men who, when reviewing the course of their lives' observation, do not regret to find that they have entirely missed seeing many important things with which their neighbours are familiar. Thus, although I have carefully observed disease for fifty years, there are scores of pathological conditions with which I have not the very slightest practical acquaintance. I will take three diseases. I have never seen a cretin or a case of myxœdema, and I only once had a glimpse of a not unquestionable case of tetany. Near as I am to the termination of my career, it would give me valid satisfaction to have an opportunity of seeing and investigating five, four, nay three typical examples of each of these diseased states, and then to be present at lectures, fully illustrating these conditions, by Professor Flower, Dr. Ord, and Dr. Gowers. Now that the paying system is coming into vogue at more than one of our great hospitals, this object may, if a hundred of my professional brethren think as I do, be readily carried into effect. By an annual expenditure of 100*l.* or guineas, we could bring twenty patients, in batches of five, to one or more of the Metropolitan hospitals, keeping each person in the house for a week; doubtless, at the end of that time, the authorities would consent to retain some, as free patients, to a termination. Here our subscribers would have full opportunity of examining the cases, and I am certain that there would never be wanting a man who, having made each type of disease a special study, would demonstrate the cases before the patients returned home. I think that the medical journals would gladly publish these lectures, and that their printers would send extra copies to subscribers at a very small cost. We ought to advertise, naming the disease to be next exhibited and informing the profession throughout the United Kingdom that we would receive five typical cases for a week, paying the expenses of each, and giving a sovereign to every person on his return home. Thus the cost of each case would be 5*l.* For the hospital 1*l.*; for travelling expenses and gratuity 3*l.* (often less); for re-printing the transactions 1*l.* All the patients would, of course, be volunteers; the move would have an obviously direct tendency to benefit them, and the trip to London might, with a little benevolent aid, be rendered extremely pleasant to these unfortunates. With larger means, the Society might readily bring to England cases of foreign disease which, under present circumstances, no home practitioner can hope to see—Pellagra, Yaws, the Scrotal Elephantiasis, Mycetoma, Delhi Boil, Leprosy and Ainhum of the East, and the Coco-Bay and Chigoe of the West Indies, and many others. The subscribers should elect annually, by voting papers, a small working body of four, President, Vice-President, Treasurer, and Hon. Secretary, empowered to use full discretion in arranging for the exhibitions, either in four consecutive weeks or once in every three months. These should meet at each others' houses and incur no expense to the Society except for postage.

LUNATICS OF FOREIGN NATIONALITY.

By CHARLES MERCIER, M.B.[1]

GENTLEMEN,—I desire to draw your attention to a class of persons probably the most unfortunate and the most unhappy in her Majesty's dominions; and not only to them, but to another and probably more numerous class of our fellow-countrymen, who are immured in the asylums of foreign nations, and are separated by impassable barriers from their country, their home, and their friends. The facts are doubtless sufficiently familiar to all present, but this is one of those cases in which familiarity has, I will not say bred contempt, nor even indifference, but has allowed all vivid recognition of the facts to lapse out of consciousness. In the same way those who are always resident in a mill become at length unconscious of its uproar. It may not therefore be superfluous to dwell on the subject with a little insistance.

The lot of a lunatic sequestered in an asylum is at the very best a forlorn and pitiable one. It is pitiable even when it is alleviated by every amelioration that affection can prompt, that ingenuity can devise, or wealth can purchase. Even the lunatic who is blest with abundance of this world's goods, and with the more effectual solace to be found in "troops of friends," is in pitiable case, for he is deprived of the most precious of all human possessions—his personal liberty. The fate of the pauper lunatic is far harder, but few of us, I venture to think, familiar as we are with the facts, realise the full severity of what they have to bear. They live a life in common; solitude and privacy are to them unknown. Day and night, month by month, and year after year they are compelled to associate with companions whom they have no voice in choosing, and whose manners and habits are many of them distasteful and repulsive in the extreme. Of the chronic lunatic it may truly be said that he labours without reward, he lives without hope, and he dies unregretted.

Dark as this picture is, it by no means represents the worst. There is one class of lunatics the special

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hardship of whose lot forms a conspicuous feature in every report of the Commissioners in Lunacy, and whose troubles form a perennial text for their homilies. These are the out-county patients; and we are all familiar with the forcible expressions with which the Commissioners refer to the justice of their complaints that all access of friends is denied to them. Confined in an asylum outside the limits of the county to which they belong, they are so far separated from their homes either by distance or by time, or, what is equivalent to both, by expense, that they are precluded from even an occasional visit of those who are near and dear to them. Still, however, they are among their fellow-countrymen. They are among those whose manners and customs and ways of living are akin to their own, who speak the same language, and to whom they can without difficulty make known their wants. It is far otherwise with the unfortunate people on whose behalf I now appeal to you. Separated from their native country, from home, from family and friends, there are not a few of these unhappy beings who are unable to speak a word of the language spoken around them, and who are as completely cut off from all human converse as if they were condemned to perpetual solitary confinement. In the midst of a crowd they live a life of unutterable loneliness. The people by whom they are surrounded, but from whom they are separated by a barrier impassable, although impalpable, are foreign to them in language, in habits, in mode of life, and in religion. Deprived of country, of home, of liberty, of reason, and of all companionship, their lot is one which, for the elements of unhappiness that it contains, can scarcely be paralleled among the human race. When we remember that this description applies not only to those citizens of foreign nationality who are immured in the comfortable asylums of our own land, but in a still more aggravated sense to those of our own countrymen who are sequestered in the bare and comfortless asylums of some continental countries; when we remember that the system of management and treatment of lunatics is not in all countries as humane and merciful as it is with us; when we bear in mind that the roving disposition of our race must ensure the existence of a greater number of Englishmen in foreign asylums, than of foreigners in the asylums of this country; the appeal to your sympathies and to your sense of justice will become, I hope, irresistible.

The charge of impracticability will, of course, be brought against the scheme that I advocate, but I submit that that is a very imperfect defence of the present state of things. The resolution that I have the honour to propose, formulates a principle. It does not attempt to enter into details of practical working, for that is, as I imagine, not within the scope of our functions. The difficulties in the way of making a working arrangement may be great, may, if you please, be insuperable; but what does man come into this world for, but to make difficult things easy, and impossible things possible? If we do not move in this matter, no one else will; but our function is to supply not the machinery, but the force to move the machinery. The evil will not be remedied until the facts are known, and unless we publish the facts, they will not be made known. We may not succeed, but we can at least do our best, and attain the relief of knowing that the responsibility for the evil does not rest upon those who have done their best to remedy it.

Gentlemen, I feel that I have put the case before you with not a tithe of the force that it deserves and demands, but I trust that the excellence of the cause will make amends for the imperfection of the advocacy, and will of itself suffice to command your sympathies, and enlist your suffrages.

I beg to move—(1) "That whereas the confinement of persons in lunatic asylums of nationality foreign to their own, places such persons in a position of peculiar and exceptional hardship, it is, in the opinion of this Association, extremely desirable that arrangements should be made between this and other nations for the transference of such persons to the country to which they belong." (2) "That a copy of the foregoing resolution be forwarded to the Secretary of State for Foreign Affairs."

AN EXAMINATION OF THE THEORY OF AËRIAL DISSEMINATION OF SMALL-POX INFECTION.

By MONTAGUE D. MAKUNA,
Late Medical Superintendent of Fulham Small-pox Hospital.

(Continued from page 661).

The Year 1877.

THERE were 2,544 deaths from small-pox in London, of which 39 occurred in Kensington, 18 in Chelsea, and 72 in Fulham (including 47 in Fulham Small-pox Hospital). Calculating at the rate of 15 per cent. 84 deaths among private cases, would give us the number 560 treated at home. The metropolitan small-pox hospitals admitted 6,750 cases from the whole of the metropolis, of which 263 were from Kensington, 86 from Fulham, and 195 from Chelsea, giving a total of 544 for the district. The Highgate Small-pox Hospital admitted 112 cases from Fulham, 26 from Kensington, and 13 from Chelsea. So that the total incidence of the disease in Kensington was 549, in Fulham 378, and in Chelsea 328, or 1,255 cases for the three districts between which the hospital is situated. Mr. Power takes 544 admitted from the three districts into the metropolitan hospitals as the incidence of the disease, and ignores the admissions to Highgate Small-pox Hospital and the private cases, which together form a much larger proportion than the number accounted for by him, especially in the case of Fulham. According to the Medical Officer of Health for Fulham, 328 cases were known to the sanitary authorities, of which 119 were in Hammersmith, and 209 in Fulham. He further states that 84 per cent. of the former and 45·9 per cent. of the latter were removed to the hospitals. He remarks, "This difference in the percentage of cases properly isolated is sufficient to account for the great difference in the number of cases occurring in the two parishes. . . . . The most energetic efforts were made to get cases removed to hospitals, but, unfortunately, a large proportion of patients remained to spread the disease, without proper accommodation or means of isolation. Some of the medical men in the district, and nearly all those in Hammersmith, did all in their power to assist us in the removal of cases. . . . . Unfortunately there was a very different course adopted by some, though I am very glad to say few. I found numerous cases treated with the worst possible accommodation." Mr. Power calculates his theory on 86 cases admitted from Fulham, and omits 112 admissions to Highgate Small-pox Hospital, and 132 private cases known to the Medical Officer of Health. I now turn to Kensington. According to Dr. Dudfield there were 399 reported cases, of which 114 were treated at home and 26 were removed to Highgate Small-pox Hospital, so that he omits 140 Kensington cases. The Report of the Medical Officer of Health for Chelsea gives us 266 cases, and they are estimated to be 328, of which Mr. Power takes up 195.

The onus of the introduction of the disease in the neighbourhood does not lie with the hospital, for it is proved that before the opening of the hospital on the 10th March, the other metropolitan hospitals received

47 cases from Kensington, 21 from Fulham, and 14 from Chelsea during the year. During the same period Highgate Small-pox Hospital admitted 10 from Kensington, 19 from Fulham, and 6 from Chelsea. The incidence of the disease for January, February, and March was, according to the known cases, as follows :—Fulham C. C. 1, ½ mile R. 1, ¾ mile R. 6, 1 mile R. —, O. S. A. 7. = 15 cases. Kensington C. C. —, ½ mile R. —, ¾ mile R. —, 1 mile R. —, O. S. A. 18. = 18 cases. Chelsea C. C. —, ½ mile R. —, ¾ mile R. 1, 1 mile R.—, O. S. A. 6. = 7 cases. To this must be added the incidence (on houses) given by Mr. Power in his tables, as the above cases are those not included in his. Unfortunately he gives the total for the three districts, which is not the best way of dealing with the subject. It is as follows :— C. C. 1, ½ mile R. 1, ¾ mile R. 6, 1 mile R. 5, O. S. A. 73 = 86. In the Monthly Report, No. 1, dated 7th February, Dr. Dudfield, of Kensington, reports that during the previous four weeks, 43 cases were known to him, of which 6 were convalescents whose illness was concealed from the sanitary authorities until too late. Nineteen cases were treated at home, of which 4 proved fatal. On the death of an unvaccinated child a sanitary inspector discovered 10 cases of small-pox in a house. A case was reported ill on the 28th December, 1876, and within five weeks 3 cases from the same family were removed to Hampstead Hospital. An unvaccinated baby was taken ill and treated in a room with nine inmates; her sister was taken ill and it was with difficulty the father was persuaded to send her to the hospital. Two cases were treated in a kitchen in Goldborne Terrace, O.S.A., and they were removed to a hospital after an application to the magistrate. A friend of theirs was lying ill in an adjoining house. Dr. Dudfield's Monthly Report, No. 2, dated 7th March, shows that during the previous four weeks there were 26 new cases and 4 deaths from small-pox. Two fatal cases were recorded in Goldborne Terrace, O. S. A., where 2 cases were reported during the previous month. A private case was treated in Southam Street, where another occurred. Two lads were treated at home who gave it to their father. A man, Lawson, was committed at the police court for the offence of sending infected clothing to a laundress. Several cases of small-pox had occurred in the defendant's house and a fatal case of a child was certified as that of "diarrhœa" early in January. The laundress discovered a sheet covered with scabs, and on pressing her enquiries she found that infected clothing had been sent to the wash weeks before. The date of the offence on the summons was 18th December, 1876. On the 19th, the daughter and niece of the laundress sorted the clothes, and on Monday the 1st January, both were taken ill. About this time the nephew of the laundress, a soldier on leave, went down to her house. He left for Birmingham on the 15th January, ill with symptoms of small-pox, and died on the 18th. His death certificate was signed by the regimental surgeon as "Epidemic Spinal Meningitis." A woman who washed his clothing became ill in turn. These facts prove that the disease was gaining ground in the locality before the opening of the hospital on the 10th March, 1877. I shall now give the incidence of the disease month after month.

March.—Fulham Hospital admitted 14 acute cases males above 7 years), 11 from Wandsworth and Clapham, 2 from Fulham and 1 from Chelsea; Highgate Hospital admitted 20 from Fulham, 2 from Kensington, and 1 from Chelsea. Dr. Dudfield's Monthly Report, No. 3, dated 4th April, records 24 cases since 7th March. There were 109 convalescents transferred to Fulham Hospital. The Medical Officer of Health for Chelsea records 12 cases. The cases under treatment during the succeeding weeks were 45, 67 and 101.

Fulham Cases.—(1) One from 24, Hildyard Street, C. C., to Hampstead Hospital, on the 2nd. (2) One from 9, Orchard Street, ¾ mile R., to Hampstead Hospital, on the 31st. (3 to 22) Other 20 Fulham cases admitted to Fulham and Hampstead Hospitals were O. S. A. They were 6 from three houses in Brewhouse Yard, Hammersmith, 2 from two houses in Angel Road, and 1 each from Broadway, Devonport Road, Chapel Street, Vernon Street, Bridge Street, Cambridge Terrace, King Street, Rose Gardens, Glenthorn Road, Florence Gardens, Birchwood Cottage, and Grafton Terrace. Excepting the last 2 cases, they are not included in Mr. Power's incidence of the disease. This enumeration of cases might be considered tedious by some, but it is of vital importance because it shows that Mr. Power's method of counting each house as a unit, regardless of all other considerations, drawing averages on palatial residences, in which servants took small-pox from outside, and poor men's houses, is unsound. Again, a plain statement of facts is in itself a satisfactory disproof of an hypothesis. It was at this time that two medical men were gaining notoriety as "small-pox curers," and were encouraging concealment of cases. Dr. Dudfield in his Report for March, gives the history of a fatal case which is very instructive. "The deceased, a single woman, aged 34, living at Notting Hill, occupied the front room on the first floor. On the 18th, a friend came down to see her but was not admitted to the room, as she thought she was suffering either from small-pox or erysipelas. From that day she was seen no more alive, nor anything so much as heard of her by the other inhabitants of the house. But the dog began to bark and howl on the 21st March, and continued to do so until the door of the room was broken open late at night on the 23rd March. A frightful spectacle was then presented. The wretched creature was found lying on her back on a bed naked, exposed and dead. The state of the room from filth of every sort, and the evidences of entire neglect and wretchedness exceed belief. An inquest was held, and the body was buried on 27th March. This gave rise to 3 more cases. The 2 Kensington cases admitted to Hampstead Hospital, were 1 each from Cornwall Road, Westbourne Park, O. S. A., and Porter Road, Notting Hill, O. S. A. The two Chelsea cases were 1 each from Westbourne Street, O. S. A., and Kensal Town, O. S. A.

April.—Fulham Hospital admitted 24 acute cases, of which 7 were from Fulham, 3 from Kensington, 10 from Chelsea, and 4 from Wandsworth. The Hampstead Hospital admitted 12 from Fulham and 2 from Kensington. Dr. Dudfield in his Monthly Report, No. 4, dated 2nd May, states that during the previous four weeks, there were 39 fresh cases, and 3 deaths in Kensington. Sixteen cases were treated at home, and he states that the increase was due to the concealment of cases and treatment at home by unqualified practitioners. Three cases occurred in the house in which the dead body of the woman was discovered as mentioned in the previous report. During the month there were 62 convalescents transferred from others to Fulham Hospital, and the weekly number of cases under treatment was 94, 101, 95 and 63.

Fulham Cases.—(1) One from 37, St. Oswald's Road, C. C., to Hampstead Hospital, on the 3rd. (2) One from 61, May Street, ¾ mile R., to Fulham Hospital, on the 5th. The street has many laundries, and several members of the hospital staff lived there. (3) A child from 6, Providence Place, ¾ mile R., to Fulham Hospital, on the 10th. Several cases were treated at home, and the child was ill ten days before removal. (4) One from 6, Hilmer Street, ¾ mile R., to Fulham Hospital, on the 11th. (5) One from 3, Wheatsheaf Alley, ¾ mile R., to Fulham Hospital, on the 26th. Some of the hospital staff lived in the street. (6 and 7) Two from 27, Stud-

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land Street, O. S. A., 1 to Hampstead Hospital, on the 6th, and the other to Fulham Hospital, on the 7th. Cases of small-pox in the house since January. (8 and 9) Two from 3, Blyth Terrace, O. S. A., 1 to Fulham Hospital, on the 7th, and the other to Hampstead Hospital, on the 19th. Several cases of small-pox in the street. (10 and 11) Two from 3, Chancellor Street, O. S. A., 1 to Fulham Hospital, on the 9th, and the other to Hampstead Hospital, on the 24th. Small-pox in the street. (12 to 14) Three from 10, Brewhouse Yard, O. S. A., 2 on the 5th and 1 on the 24th, to Hampstead Hospital. Infected house. Several cases in street, and six removed to Hampstead Hospital previous month. (15 and 16) Two from 30, Alma Cottages, O. S. A., 1 on the 7th, and the other on the 25th, to Hampstead Hospital. (17 to 19) One each from 29, Hanover Cottages, 2, Ainsvale, and 10, Witham Street, to Hampstead Hospital, on the 13th, 28th and 30th.

Kensington Cases.—(1) One from 4, Fawcett Mews, ½ mile R., on the 25th, to Fulham Hospital. (2 to 5) One each from 325, Portobello Road, and 26, Goldborne Gardens, O. S. A., to Fulham Hospital, on the 26th; and 21, Athelstone Mews, and 10, Phillimore Gardens, O. S. A., to Hampstead Hospital, on the 2nd and 19th respectively.

Chelsea Cases.—(1 to 5) Five occurred in Kensal Town, O. S. A., between two and three miles from the hospital. (6) One from 22, Seaton Street, ¾ mile R., to Hampstead Hospital, on the 7th. (7 and 8) A boy from 42, Blantyre Street, ¾ mile R., to Hampstead Hospital, on the 9th, his brother on the 21st. (9 and 10) One from Chelsea Hospital, O. S. A., to Hampstead Hospital, on the 12th, and the other from 27, Paradise Walk, on the 16th.

May.—Fulham Hospital was now ready for the reception of cases of both sexes, and at all ages; the total admissions were 64 acute cases, and 98 convalescents. The acute cases were, 7 from Fulham; 11 from Kensington; 34 from Chelsea; 11 from Wandsworth, and 1 from Westminster. Highgate Hospital admitted 21 from Fulham; 2 from Chelsea, and 2 from Kensington. Dr. Dudfield's Monthly Report, No. 5, dated 30th May, gives 43 new cases, and 2 deaths during the four previous weeks. Most of the Kensington cases occurred in Kensal New Town and the adjoining parts, between two and three miles away from the hospital. The Medical Officer of Health for Chelsea reported 54 cases. Several applications were made to the magistrate at Hammersmith for the removal of cases from Fulham, where the landlords wanted to eject the tenants suffering from small-pox, whose families of five and seven persons were living in one room, the children, moreover, playing together in the street. The weekly number of cases under treatment at Fulham Hospital was 48, 66, 101, and 142.

Fulham Cases.—(1) One from a street in Walham Green, C. C., to Fulham Hospital, on the 19th. It was the child of a man and his wife employed in the laundry of the hospital and who slept outside; their other children had already had small-pox and been treated at home. (2) One from Seagrove Road, C. C., the street in which Fulham Hospital is, to the Hampstead Hospital, on the 20th. (3) A child, from 2, Bective Road, ½ mile R., to Fulham Hospital, on the 20th. It was that of a man and his wife engaged in Fulham Hospital as nurses, and who had lodgings at the above address. Their other children suffered from small-pox, but were treated at home. (4) One from 3, Jervis Road, ½ mile R., to Fulham Hospital, on the 20th. (5) One from 2, Princess Terrace, ½ mile R., to Hampstead Hospital, on the 15th. (6 and 7) Two from 2, John's Place, ½ mile R., to Hampstead Hospital, one on the 16th and the other on the 18th. (8) One from 14, Crown Street, ¾ mile R., to Fulham Hospital, on the 19th. (9) One from 4, Pownal Road, ¾ mile R., to Fulham Hospital, on the 10th. (10) One from Russell's Cottages, ¾ mile R., to Hampstead Hospital, on the 19th. (11) One from 7, Rectory Place, 1 mile R., to Hampstead Hospital, on the 4th. (12 and 13) One each from 13 and 24, Rylstone Road, 1 mile R., to Hampstead Hospital, on the 12th and 28th. Several cases of small-pox in the street. (14) One from 10, William Street, 1 mile R., on the 16th, to Hampstead Hospital. (15) One from 16, Ancill Street, 1 mile R., on the 18th, to Hampstead Hospital. (16) One from 19, Bedford Place, 1 mile R., to Hampstead Hospital, on the 19th. (17 to 28) Twelve cases were from Outside Special Area. They were 2 from 4, Mitre Row, 1 from Hant Street, 2 from Hanover Cottages (infected houses), 1 from Wilson's Road, 1 from Norfolk Terrace, 1 from Angel Row, 1 from Elrice Terrace, 1 from Church Road, 1 from Suffolk Cottage, and 1 from Wharf Terrace.

From the above history it is evident that Fulham, within the Special Area, especially in the neighbourhood of the hospital, became infected through the free intercourse of the hospital staff residing outside. It was well known that male and female nurses, laundry people, porters, &c., received visits from their friends, waiting outside the hospital gates till they were free, and then promenaded the streets and visited the places of refreshment in the neighbourhood. Several complaints were made from public-houses, and some members of the staff were taken before magistrates charged with drunkenness and fighting.

Kensington Cases.—(1 to 13) The 13 Kensington cases were from O. S. A., 2 from Southam Street, 1 each from Lancaster Road, Bangor Street, Norfolk Terrace (imported case), Stafford Terrace, St. Luke's Mews, Hazlewood Crescent, Bevington Road, Alma Cottages (infected house), Pembroke Place, St. Anne's Road, and Silver Street.

Chelsea Cases.—(1) One from 22, Luna Street, ¾ mile R., to Fulham Hospital, on the 26th. (2) One from 20, Luna Street, ¾ mile R., to Hampstead Hospital, on 17th. (3 to 37) The remaining 34 cases occurred in O. S. A., and of these 14 were in Kensal New Town. The 20 cases in O. S. A. were — 3 from Bywater Street, 4 from Wellington Buildings, 2 each from Little Kepple Street, Pimlico Road, Lower George Street, and King's Road, and 1 each from College Street, Radnor Street, Paradise Walk, Arthur Street, and Standfield Street. Had the theory of aërial infection been borne out by facts, the Special Area in Chelsea and Kensington should have been equally infected with that of Fulham. Moreover, it has been ascertained that a large number of cases in the Special Area of Fulham were concealed or treated at home. It is monstrous to draw averages on houses in the Special Area of Fulham, Kensington, and Chelsea, when cases have occurred only in Fulham.

June.—Fulham Hospital admitted 75 acute cases, viz., 41 from Kensington, 5 from Fulham, 23 from Chelsea, 2 from Paddington, 3 from Westminster, and 1 from Wandsworth. Highgate Hospital admitted 11 from Fulham, 3 from Kensington, and 1 from Chelsea. Dr. Dudfield, in the Monthly Report, No. 6, dated 27th June, reports 50 new cases and 3 deaths. The Medical Officer of Health for Chelsea reported 30 cases. During the month 20 convalescents were transferred to Fulham Hospital; and the cases under treatment, week by week, were 144, 130, 107, 90, and 74.

Fulham Cases.—(1) One from Rickett Street, C. C., to Fulham Hospital, on 15th. He was a bricklayer, working on fever hospital premises. (2 and 3) Father and son, from 9, Wyatt's Terrace, 1 mile R., to Fulham Hospital, on 1st and 15th. (4) A domestic, from Parson's Green, ¾ mile R., to Fulham Hospital, on the

2nd. Infected house. (5 and 6) Two from Russell's Cottages, ¾ mile R., to Hampstead Hospital, on the 3rd and 14th. (7) One from 24, Ancill Street, 1 mile R., to Hampstead Hospital, on the 18th. (8 to 16) Nine were from O. S. A., viz., 4 from Wilson Road, and 1 each from Union Place, Hunt Street, Mortimer Terrace, Faroe Street, and King Street.

Kensington Cases.—(1) One from 47, Ifield Road, C. C., to Fulham Hospital on the 10th. The names Ifield Road and Adrian Terrace are indiscriminately used, as they form one street and the houses numbered consecutively. We know of cases of small-pox in this street, as some medical men had asked us to attend them. (2) An attendant at South Kensington Museum, from 146, Adrian Terrace, C. C., on the 15th, to Fulham Hospital. She believed she took the disease from the place of her service. She became a centre of infection to several cases. (3 to 6) Four children from 7, St. Mark's Road, just outside C. C., 3 on the 17th to Fulham Hospital, and the primary case, a convalescent, the following day. The family had recently come to reside here from Bedfordshire, and the previous inmates left the house infected. (7) One from 16, South Street, C. C., to Fulham Hospital, on the 26th. Close to the above cases. (8) One from 3, North Street, C. C., to Fulham Hospital, on the 27th. Close to the above cases. (19) One from 19, Redcliffe Mews, ½ mile R., to Fulham Hospital, on the 15th. (20) A dressmaker from 21, Seymour Place, ½ mile R., to Fulham Hospital, on the 21st. (21) A domestic from 40, Harcourt Terrace, ½ mile R., to Fulham Hospital, on the 24th. (22) One from 46, Fulham Road, ½ mile R., on the 7th, to Hampstead Hospital. (23) One from 17, Ashley Cottages, ¾ mile R., to Fulham Hospital, on the 5th. (24) A domestic from 144, Fulham Road, ¾ mile R., to Fulham Hospital, on the 26th. (25) One from 58, Pembroke Road, 1 mile R., to Fulham Hospital, on the 2nd. (26) One from Providence Terrace, 1 mile R., to Fulham Hospital on the 9th. (27 to 44) Twenty-eight cases were from O. S. A. Six children from 9, Testerton Street, 3 from three infected houses in Southam Street, 3 from three houses in Absolm Road, 2 from Tedbury Road, 1 each from Mornington Road, Bute Street, Blythfield Street, Bosworth Road, Elgin Mews, High Street, Godsden Mews, Notting Hill, Bangor Street, Duke's Lane, St. Evan's Street, Portobello Road (infected from Walmer Road), Goldborne Road, and Holland Place.

Chelsea Cases.—(1) One from 25, Limerstone Street, ¾ mile R., to Fulham Hospital, on the 23rd. (2) One from 11, Hobury Street, ¾ mile R., to Fulham Hospital, on the 30th. (3 and 4) One each from 83 and 85, Fulham Road, 1 mile R., on the 7th and 9th. (5 to 24) Twenty cases were from O. S. A. Two from an infected house in First Street, 2 from Flood Street, 2 from Manor Gardens, 2 from Marlborough Place, 1 each from King's Road, York Terrace, Regent Street, Blackland Terrace, Bywater Street, Ive Street, The Barge, Kensal Town (infected), Paradise Walk (an infected house), Christchurch Street, King Street, Stewart's Grove, and 1 wandering about the street.

July.—Fulham Hospital admitted 67 acute cases, viz., 3 from Fulham, 45 from Kensington, 9 from Chelsea, 7 from Wandsworth, and 3 from Westminster. Highgate Hospital admitted 3 from Fulham, 1 from Kensington, and 1 from Chelsea. Dr. Dudfield, in his Monthly Report, No. 7, dated 25th July, gives 43 fresh cases during the previous four weeks, of which 5 were treated at home. The Medical Officer of Health for Chelsea gives 23 cases as the incidence of the disease in his parish. During the month there were 4 convalescents transferred to Fulham Hospital, and the weekly number of cases were 65, 68, 59, and 52.

Fulham Cases.—(1) One from 2, Wellington Road, ½ mile R., on the 2nd. (2) One from 6, Wilson's Cottages, ¾ mile R., on the 19th. (3) One from 2, King's Road, ¾ mile R., on the 25th. (4 to 6) Three from O. S. A.; 1 each from Victoria Cottages, Oak Terrace, and Munden Street.

Kensington Cases.—(1 to 5) Five cases from Ifield Road, C. C. They were 1 each from Nos. 64, 76, 21, 116, and 93, to Fulham Hospital, on the 7th, 9th, 9th, 11th, and 30th respectively. The last case was that of a domestic, who up to a fortnight of her illness was in the service of a foreign family in Pembroke Gardens, where a fatal concealed case of small-pox occurred which led to the breaking up of the household, and the servant came home at the above address. (6 to 8) Three from Finborough Road, C. C., to Fulham Hospital. A domestic from No. 1, on the 9th. A schoolmaster, who had several children under him suffering from so-called chicken-pox. A landlady from No. 172. One of her lodgers, a clerk in the City, took the disease lightly from his affianced (the second Kensington case for June), followed his daily occupation as usual. A domestic was taken ill, and sent home. Other light cases occurred in the same street, and they succeeded in evading the sanitary authorities. (9) One from 21, Seymour Place, ½ mile R., to Fulham Hospital, on the 8th (case last month). (10) A shop-boy from 238, Fulham Road, ½ mile R., to Fulham Hospital, on the 8th. (11 and 12) A butler from 82 and a domestic from 71, Redcliffe Gardens, ½ mile R., to Fulham Hospital, on the 13th and 26th respectively. (13) A butler from 14, Redcliffe Square, ½ mile R., to Fulham Hospital, on the 29th. (14 and 15) One from No. 2 and one from No. 11, Coleherne Mews, ½ mile R., to Fulham Hospital, on the 30th. (16) A domestic from 2, Cathcart Road, ½ mile R., to Fulham Hospital, on the 30th. A concealed case was treated at home. (17) A female from 8, Clifton Place, ¾ mile R., to Fulham Hospital, on the 28th. (18) One from 2, Cranley Mews, 1 mile R., to Fulham Hospital, on the 30th. (19 to 46) Twenty-eight were from O. S. A., eleven of which were from 29, Wheatstone Road. Dr. Dudfield reported on these cases as follows:—"Twenty-one persons lived in the house—viz., three families in the parlour, first and second floors, respectively, besides a single man in the kitchen who had had small-pox previously. The disease made its appearance in the parlour floor of the house some time in June, the first case being that of a girl aged 10. The parents of this child attempted to conceal the nature of the disease, even from the father's brother, who lived on the first floor, and who has been the greatest sufferer from the outbreak. No preventive measures were taken to check the spread of the disease. On 19th June the suspicion entertained that the child had small-pox was communicated to us in an anonymous letter. The house was visited the same day, and the suspicion proved to be just. In three rooms there lived the parents and two children. The sick girl was in a room by herself, and the mother was nursing her. An absolute refusal was returned to Inspector Langman's urgent and repeated requests that the child might be sent to the hospital, it not being a case in which the compulsory powers of removal could be enforced. Other cases, to the number of 10, subsequently occurred, and these, with one exception, which was very light and was concealed from us, were sent to the Fulham Hospital. Of the 21 inmates of the house, 11 were attacked and four have died, including one adult, the father of the little girl who was first taken ill and who has recovered. This child, it is stated, was running about for days with the scabs of the disease on her face; and it is said, moreover, that the blankets in which she lay, covered with scabs, were hung over the yard wall, a mode of exposure of an infected thing which your Vestry's Law and Parliamentary Committee have advised is not an offence within the meaning of the

38th Section of the Sanitary Act, 1866. At the rear of the house in which these people lived, two other cases have occurred in other two houses, the disease apparently having been spread by the exposure of the before-mentioned blankets, which, by the way, first excited suspicion as to the nature of the illness." One each from Bosworth Road, Lionel Mews, Angola Mews, Lonsdale Road, Upper Westbourne Park, Rabbit Row, Swinbrook Road, James Street, James Place, Goldborne Road, Vicarage Street, Drayton Mews, Kensington Square, Monro Mews (back of 29, Wheatstone Road), Ladbroke Grove Road, Bevington Road, and Southam Street.

Chelsea Cases.—(1) One from 10, Maude Grove, ½ mile R., to Hampstead Hospital, on 10th. (2) One from 27, Slaidburn Street, ¾ mile R., to Fulham Hospital, on the 7th. (3) One from 10, Callow Street, ¾ mile R., to Fulham Hospital, on the 11th. (4) One from King's Arms, Cheyne Walk, 1 mile R., on the 23rd. The lady of the public-house lying ill at home with small-pox (5 to 8) Four from O. S. A., 1 each from Exeter Street, Flood Street, Cornwall Cottage, Kensal New Town, and Hilda Terrace.

August.—Fulham Hospital, admitted 43 acute cases, viz., 2 from Fulham, 24 from Kensington, 7 from Chelsea, 8 from Wandsworth, and 2 from Westminster. Highgate Hospital, admitted 14 from Fulham, and none from Kensington and Chelsea. Dr. Dudfield in his Monthly Report, No. 8, dated 22nd August, reported 39 fresh cases, and 2 deaths; 7 cases were treated at home. The Medical Officer of Health for Chelsea recorded 7 fresh cases. There were 64, 60, 48, and 38 cases under treatment at Fulham Hospital, during each week of the month.

Fulham Cases.—(1) One from 5 Lillie Yard, C. C., to Hampstead Hospital, on the 2nd. (2) A female, from 6, Augustus Place, ½ mile R., on the 6th, to Fulham Hospital. She was sent home ill from the place of her service, outside the parish. (3) One from 36, Peterboro' Road, ½ mile R., on the 18th. (4) One from 3, Dawes' Buildings, ½ mile R., on the 29th. (5 to 10) Six from Rectory Place, ¾ mile R. It was an outbreak of 14 known cases. A servant girl was sent home ill from a shop-house in Fulham Road, at the corner of the Ifield Road; she gave the disease to 1 in 12, Rectory Place, to Fulham Hospital, on the 6th, 1 in No. 14, 3 in No. 34, and 1 in No. 25; sent to Hampstead Hospital; 7 cases were treated at home. (11) One from Stamford Road, ½ mile R., on the 1st. (12 to 16) Five from O. S. A., viz., 1 each from Fulham Board of Works Premises (infected while removing cases to Hospitals), Ivy Cottage, Broomhouse, Orchard Street, and Dolling Street.

Kensington Cases.—(1) A domestic from Cemetery Lodge, C. C., to Fulham Hospital, on the 3rd. (2 and 3) One from 69, and 1 from 124, Ifield Road, C. C., to Fulham Hospital, on the 4th and 5th. (4) A domestic from 44, Finborough Road, C. C., to Fulham Hospital, on the 13th. By visiting her uncle in Langston Street, Chelsea. (5) One from 16, St. Mark's Road, just outside C. C., to Fulham Hospital, on the 2nd. Small-pox in the street since May. (6) A domestic from 67, Redcliffe Gardens, ½ mile R., to Fulham Hospital, on the 2nd. (7) One from 7, Stamford Cottages, ½ mile R., to Fulham Hospital, on the 23rd. (8) One from 45, Thistle Grove, ¾ mile R., to Fulham Hospital, about the 25th. (9) One from Onslow Works, ¾ mile R., to Fulham Hospital, on the 31st. (10) An ironer from 6, Warwick Street, 1 mile R., to Fulham Hospital, on the 3rd. (11 to 24) Fourteen cases from O. S. A. Four from 14, Monro Mews, took the disease from 29, Wheatstone Road, admitted last month, 2 from 8, St. James' Place, a case from the same house last month, 1 each from Bangor Street, Alveston Mews, Bolton Road, Bomore Road, Southam Street, Thorpe Mews, Edwardes Cottages, and Katherine Road. Most of these streets have been infected.

Chelsea Cases.—(1) One from 4, Maude Grove, ½ mile R., to Fulham Hospital, on the 8th. (2) One from 443, King's Road, 1 mile R., to Fulham Hospital, on the 6th. (3 to 7) Five from O. S. A., 2 from Manor Gardens, on the 19th and 31st, 1 each from Langston Street, Pond Terrace, and Marlborough Place.

September.—Fulham Hospital admitted 27 acute cases, viz., 7 from Fulham, 9 from Kensington, 4 from Chelsea, 4 from Westminster, 1 from St. George's, and 2 from Wandsworth. Highgate Hospital admitted 2 from Fulham, and 2 from Chelsea. Dr. Dudfield in his Monthly Report, No. 9, dated 19th September, gives 12 fresh cases, and 1 death of an imported case. The Medical Officer of Health for Chelsea gives 6 cases. The number of cases under treatment during each week of the month were 37, 28, 19, 23, and 28.

Fulham Cases.—(1) One from 4, Seagrove Road, C. C., to Hampstead Hospital, on the 21st. An infected house. Cases from C. C. were sent to Hampstead Hospital to avoid all inquiries. (2) An unvaccinated child from 50, Fawn Lane, C. C., to Fulham Hospital, on the 28th. An infected street. (3) One from 21, St. Thomas' Road, ½ mile R., to Fulham Hospital, on the 14th. She had been to the seaside and returned home ill. (4) One from 26, Rectory Place, ¾ mile R., to Hampstead Hospital on the 6th. Source of the outbreak given in the statement of the last month. (5 to 9) Five from O. S. A. Four unvaccinated children from Munden Street, and 1 from Wilson Road.

Kensington Cases.—(1) One from 132, Ifield Road, C. C., to Fulham Hospital, on the 12th. (2 and 3) Two from 58, Seymour Place, ½ mile R., to Fulham Hospital, on the 18th and 26th. A lady in the house treated for small-pox. (4 and 5) Two from 23, Ashley Cottages, ¾ mile R., to Fulham Hospital, on the 23rd and 25th. (6) One from 2, South Bank Villas, 1 mile R., to Fulham Hospital, on the 27th. Infected in Putney. (7 to 9) Three from O. S. A. Two from Warmington Road. An infected house. One from 2, Bolton Road. An infected street.

Chelsea Cases.—(1) One from 20, Poulton Square, 1 mile R., to Fulham Hospital, on the 29th. (2 to 6) Five from O. S. A.; 2 from College Street (infected in Marylebone), 1 from Robert Street, and 1 from Victoria Hospital (both infected in the hospital), and 1 from Police Station.

October.—Fulham Hospital admitted 9 acute cases, viz., 5 from Fulham, 3 from Kensington, and 1 from Chelsea, up to the 15th, as it was then closed for acute cases. The Metropolitan Asylums Board Hospitals had admitted 10 from Fulham, 13 from Kensington, and 24 from Chelsea, from 6th October to 3rd November. Highgate Hospital had admitted 1 from Chelsea. The cases under treatment at Fulham Hospital were 21, 19, 14, and 13 during each week of the month.

Fulham Cases.—(1) One from 11, St. Thomas's Road, ½ mile R., to Fulham Hospital, on the 2nd. Small-pox in the street. (2) A female from the "Elms," ¾ mile R., to Fulham Hospital, on the 10th. She took the disease from her friends in Clyde Road, ½ mile R., where there were cases of small-pox. (3) A schoolboy from 14, Grove Terrace, ¾ mile R., on the 15th. (4 and 5) Two brothers from 8, Caroline Terrace, O. S. A., to Fulham Hospital, on the 9th. Their sister came home ill from King's Road, Chelsea, three weeks previous, and now convalescent. Cases admitted to other metropolitan hospitals from Fulham during October, November, and December are not available.

Kensington Cases.—(1) One from 166, Adrian Terrace, C. C., to Fulham Hospital, on the 12th. (2) One from 2, Southbank Villas, ¾ mile R., to Fulham Hospital, on the 7th. Infected House. (3) A domestic, from

23, Ashley Cottages, ¾ mile R., to Fulham Hospital, on the 2nd. Infected House: (4) One from 5, North Street, C. C., to Stockwell Hospital, on the 14th. (5) One from Portland Lodge, ½ mile R., to Stockwell Hospital, on the 18th. (6) One from 9, Walgrove Road, ¾ mile R., to Stockwell Hospital, on the 17th. (7 to 9) Three from Shaftesbury Terrace, 1 mile R., to Stockwell Hospital, on the 12th, 23rd, and 25th.

Chelsea Cases.—(1) A student from St. Mark's College, ½ mile R., to Hampstead Hospital, on the 15th. (2) One from 1, Riley Street, ¾ mile R., to Fulham Hospital, on the 1st. Other Chelsea cases are not available, but we know of more than 20 cases admitted to other hospitals.

November.—Fulham Hospital received 26 convalescents, and had under treatment 7, 21, 16, and 21 cases. The metropolitan hospitals had admitted 4 from Fulham, 2 from Kensington, and 17 from Chelsea. Dr. Dudfield, in his Monthly Report, No. 11, dated 14th November, gives 12 cases from four previous weeks. Medical Officer of Health for Chelsea gives 24 cases. Highgate Hospital admitted 2 from Fulham and 2 from Kensington. They were, one from 24A, King's Road, ½ mile R., and 3, Ebenezer Cottages, ¾ mile R., in Fulham. The two Kensington cases were from Silchester Road and Tavistock Road.

December.—Fulham Hospital admitted 34 convalescents, and there were 24, 27, 24, 24, and 15 under treatment during each week. The other metropolitan hospitals admitted 4 from Fulham, 4 from Kensington, and 27 from Chelsea. Highgate Small-pox Hospital admitted 15 from Fulham and 2 from Kensington. Dr. Dudfield's Monthly Reports, Nos. 12 and 13, give 10 fresh cases during eight weeks, to 9th January, 1878. The Medical Officer of Health for Chelsea gives 27 fresh cases during the month.

Fulham Cases admitted to Highgate Hospital.—(1 and 2) Two from 11, Seagrove Road, C. C., one on the 4th and the other on the 27th. Infected house. (3) One from 1, Peterborough Road, ½ mile R., on the 1st. (4 and 5) Two from Fane Street, ½ mile R., on the 3rd and 4th. (6) One from 47, Estcourt Road, ¾ mile R., on the 15th. (7) One from 10, Hilmer Street, ¾ mile R., on the 30th. (8) One from 12, Dieppe Street, ¾ mile R., on the 17th. (9) One from Star Lane, ¾ mile R., on the 16th. (10 to 15) Six from O. S. A., viz., 2 from Mansion House Street, and 1 each from Munden Street, Shuter's Terrace, Goodson Road, and Southbrook Street. We know that of Kensington cases, 1 from 32, Ifield Road, C. C., and 2 from Walgrove Road, ¾ mile R., and 1 from 10, Edwardes Square, 1 mile R., were admitted to Stockwell Small-pox Hospital.

We learn from the able Report of the late Dr. Barclay on Small-pox in Chelsea, that 5 cases occurred in Durham Terrace, O. S. A., during October, November, and December from the same source; Ormond Row produced 9 cases in October and November from a concealed case, and he states other cases were traced to the same source. In October there were 5 cases from 4 houses, viz., 20, 21 (2 cases), 24, and 57, Slaidburn Street. In November there were 9 cases in 6 houses, viz., 28, 30, 37 (4 cases), 38, 42, and 49, Slaidburn Street. In December there were 4 cases, viz., one each from Nos. 28, 49, 36, and 39. Thus there were 21 cases in October, November, and December from Slaidburn Street, ½ mile R. The history of small-pox in Kensington, Fulham, and Chelsea, as given above, shows:—Firstly, that in those months when it was most prevalent in Fulham, it was least so in Kensington and Chelsea, and *vice versâ*, which would not allow drawing up averages on cases or houses in the three districts put together. Secondly—A large number of cases occurred in October, November, and December, when the Hospital was closed, and the Special Area remained infected through concealed cases. Thirdly—The intercommunication between the hospital-staff, especially the non-resident, and the public was free. Fourthly—The hospital management was defective. Fifthly—The above-mentioned history gives many significant facts which account for the causes of the outbreaks in the locality. Under these circumstances the hypothesis of aërial infection, apart from all other conditions, is incompatible with the facts bearing on the history of the spread of small-pox in Kensington, Fulham, and Chelsea during the year 1877.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LEEDS GENERAL INFIRMARY.

CASE OF SEPARATION OF THE LOWER EPIPHYSIS OF THE FEMUR.

By A. F. McGILL, F.R.C.S.,
Honorary Surgeon to the Infirmary.

THE patient, a strong, well developed boy, aged 15, was admitted into the Leeds Infirmary on April 5th, 1884. He states that while sitting at his work, with his feet on the ground, centre-punching a boiler plate, the heavy iron plate slipped and struck the lower part of the femur, above the left knee. He was immediately disabled, and was unable to walk; he was straightway brought to the hospital.

When examined he is seen to lie on the left side, with left leg slightly flexed and everted. There is general swelling in the region of the knee-joint and well marked deformity. The anterior surface of the patella lies in a plane 1½ inches in front of the anterior surface of the shaft of the femur; behind the patella can be felt a mass of bone corresponding in shape with the lower epiphysis of the femur; this lies in front of the lower end of the shaft, the articular surface looking downwards and forwards. Posteriorly the broken lower end of the shaft of the femur can be felt; the popliteal vessels are by it displaced backwards, and are felt beating directly under the skin. On measuring it is found that the circumference of the injured limb opposite the upper border of the patella is 14⅞ inches, on the other side it being 13 inches; the ilio-patellar line is shortened five-eighths of an inch. Pulsation in the posterior tibial and dorsal arteries is unimpaired.

Ether having been administered, the deformity in the limb was easily reduced by forcibly flexing the leg till the heel touched the buttock. The limb was placed on a back splint, and the patient made a perfect recovery.

Remarks.—The above case is an example of a rare accident, which has often led to loss of life or limb. If not reduced the leg is of but little use, and the popliteal vessels may be so injured as to give rise to a traumatic aneurysm, or to gangrene of the foot and leg. A specimen in the Leeds School of Medicine Museum, taken from a limb amputated for spreading gangrene, shows the exact nature of the accident; the lower epiphysis is displaced upwards and forwards in front of the shaft and rotated forwards on its transverse axis; the popliteal vessels were in this case entirely occluded by the pressure of the lower broken end of the femur.

The displacement of the epiphysis forwards is not, perhaps, what might have been expected; it is accounted for by the fact that the epiphyseal line slants obliquely from above and in front, downwards and backwards.

LEEDS FEVER HOSPITAL.

CASES OF ENTERIC FEVER, WITH SUPPURATIVE PAROTITIS.

(Under the care of Dr. BARRS.)

Case 1.—Eliza W., aged 25, a woolworker, was admitted on October 11th, 1883, in about the middle of the second week of a fairly severe attack of enteric fever. Up to October 23rd, about the twenty-first day of the disease, the case pursued an ordinary but anxious course, the temperature curve running at a mean of 103·5° Fahr., with very free diarrhœa. On the evening of October 23rd a swelling on each side of the face was first noticed, and on the morning of the 24th had attained considerable size. The fauces were injected, but there was no ulceration or swelling. On the 25th the swelling had reached enormous dimensions, extending downwards, on the sides of the neck and beneath the chin; the eyelids were œdematous, and the features much distorted by the extreme widening of the face. There was an offensive metallic odour of the breath and some difficulty in swallowing and breathing. Temperature, 102·8°, morning and evening; pulse, 172. She died the following morning.

Necropsy.—The parotid glands and adjacent connective tissue were much inflamed. Section showed intense œdema of gland tissue, with hyperæmia and very general purulent infiltration, the whole of the parotid body being soaked with pus. The intestines showed extensive typhoid lesions of the lower third of the ileum. In some of the ulcers the sloughs had separated, but in others they were still adherent. The spleen weighed five ounces. No other changes of importance found.

Case 2.—Eliza S., aged 21, was admitted on November 24th, in the early part of the third week of typhoid fever. The case ran an unusually severe course, with profuse diarrhœa and recurring small hæmorrhages until December 2nd. On December 2nd the right side of the face and neck began to swell, soon followed by the left side; the temperature rose to 104·2° Fahr. On December 3rd the swelling had much increased, and extended to the submental region. The local condition remained unchanged until the 7th, when the swelling in the parotid and submaxillary regions considerably diminished, and had become softer and more elastic, but there was no appearance of pointing. The skin was freely movable over the swellings. On the 11th the swelling on the right side had very much subsided, and the submaxillary swelling on this side had quite disappeared. The swelling on the left side gradually increased till the 16th, when it was incised and a quantity of thick pus liberated. The temperature curve never rose during the attack of parotitis above 102°, but the patient became extremely feeble with involuntary evacuations and the formation of acute sacral bed-sore. Convalescence, which is only now (May 3rd) completed, was very seriously interrupted by two severe attacks of erysipelas of the head and face, and one relapse of the enteric condition, and by the formation of many bed-sores, in spite of every precaution. The benefit derived from forced feeding in the later stages of this case was unusually striking, bed-sores, which had been at a standstill for weeks, healing with the most gratifying rapidity.

The above brief abstracts are taken from the detailed reports of Dr. Crooke, the Resident Medical Officer.

Medical Times and Gazette.

SATURDAY, MAY 24, 1884.

It is an annual occurrence at the concluding meeting of the session of the Pathological Society that there should be more business than can possibly be transacted, and last Tuesday formed no exception to the rule. Amongst the crowd of card specimens one especially deserves notice. Mr. Morgan showed the cerebellum and atlo-occipital joint of a child who had come by its death in an unusual manner. The child fell on the stairs at a moment when it had a knitting needle in its mouth; the needle was driven through the palate and through the atlo-occipital joint into the cerebellum. It was at once extracted, but the child died in about twenty-four hours.

Aneurysms monopolised a good deal of the time, Dr. Turner exhibiting several specimens of cerebral aneurysm. His contention was, if we understood him aright, that miliary aneurysms are not so common as some authors would have us believe, and that it is not to this cause that we must attribute the majority of cases of fatal hæmorrhage into the brain. He admits a local dilatation of the arterioles as a result of arteritis, which is liable to have a weak spot somewhere, but does not regard such dilatation as aneurysmal in its nature. Dr. Percy Kidd brought a series of cases of pulmonary aneurysms, *i.e.*, developed on branches of the pulmonary artery, by reason of the formation of cavities and of the loss of support to the wall of the vessel thereby occasioned. He showed very clearly that this condition is by far the most fertile cause of death from hæmoptysis, an opinion which Dr. Wilks afterwards expressed even more strongly. They do not, however, always give rise to hæmoptysis, as no less than six of his cases had died without presenting this symptom.

A valuable paper was almost thrown away in being communicated at this meeting, by Messrs. Parker and Shattock, on the mode of production of the various forms of congenital talipes. The authors were only able to give the briefest outlines of the results of their work, and it is impossible to discuss the correctness or otherwise of their conclusions without a fuller knowledge of the observations on which those opinions were arrived at. Dr. Sharkey showed an unusual specimen of ulceration of the intestines, certainly not tubercular, and not due to typhoid. There was nothing in the case, so far as we were able to gather, that pointed to syphilis, either inherited or acquired; but why may not the ulceration have been simple? We do not class all ulcers of the skin as tubercular or syphilitic, and we recognise a simple ulcer of the stomach. There does not seem to be any *a priori* reason why we should not have a simple ulceration of the intestines.

At the meeting of the Royal Medical and Chirurgical Society on Tuesday next, May 27th, two papers by

Dr. Cayley and Dr. Biss will be read on the treatment of cavity of the lung by paracentesis. Several of those who have experience in this method will attend, and a very interesting discussion is expected.

Speaking at the meeting of the Hospitals Association on Wednesday evening, Mr. Burdett urged a fusion of the Metropolitan Sunday and Saturday Funds as being called for on several grounds. After admitting that they have proved very useful in the past, and after refuting the commonly propagated doctrine that since their institution the amounts received by the hospitals, in ordinary subscriptions, have shown a marked falling off, he proceeded to indicate the reforms which he considered to be needed, if these great organisations were to work all the good they were capable of. The amalgamation would save a very considerable amount of money now spent in advertising, and collecting the two funds separately, and would, Mr. Burdett thinks, really lead to greater receipts, if the collections were made on consecutive days, as a spirit of rivalry would be engendered, which should stimulate all parties. We do not feel quite so sure of the wisdom of this proposal; many people who now give to both, would not feel inclined to subscribe on two consecutive days. But the chief feature of the paper was to call attention to the great expense incurred in the management of the Hospital Saturday Fund, the working expenses of which exceed nineteen per cent. of the receipts, nearly three times as much as a similar institution at Birmingham. This lack of economy Mr. Burdett traces to the same motives which prompt the executive to demand from the hospitals a *quid pro quo* return, in the shape of letters for the amount received from the fund. Against this system he protests in vigorous, but none too strong language, and we cordially agree with him that the imposition of such conditions, as a sort of contract with the hospital, is entirely contrary to the spirit of charity, and not creditable to the management of the fund.

In a recent communication to the Academy of Medicine in Ireland, Dr. C. A. Cameron recorded the results of some experiments he had carried out, to determine if possible why some vaults beneath one of the churches in Dublin were possessed of antiseptic properties. Some tubes containing infusion of melon, which had been carefully sterilised, were placed in the vault for six weeks. At the end of this time five were turbid and filled with mycelium, and five were perfectly clear, but became turbid after they had been in the laboratory a short time. The experiment took place in August, and Dr. Cameron considers it of interest that an unstable organic liquid should have remained so long undecomposed.

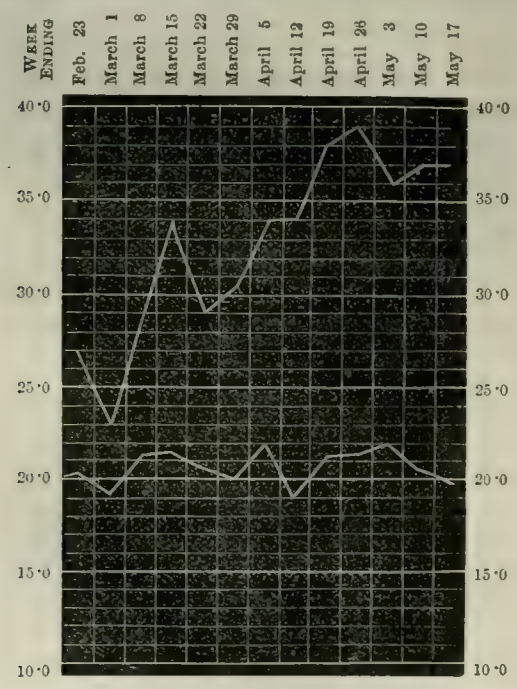
M. Fallières, the French Minister of Public Instruction, has fallen in with M. Pasteur's wish to have the results of his experiments on rabies authoritatively confirmed, and has appointed a very strong Commission for that purpose, comprising the well-known names of Brelard, Paul Bert, Bouley, Villemin, Vulpian, and Tisserand. M. Pasteur must have felt great confidence in the accuracy of his conclusions to be willing to expose them to such an ordeal. The general complaint hitherto made by other savants against him is that he has shown himself too suspicious of scrutiny, and his results have on that account perhaps met with more scepticism in the scientific world than they deserved. His action on the present occasion therefore deserves to be generously recognised, though it is his results rather than the processes by which he has obtained them that he exposes to scrutiny. Everyone will await with interest the report of the Commission. If it is favourable, and if, further, it should be shown that hydrophobia can be forestalled in man, and rabies stamped out in animals, medical science will have achieved a victory, the brilliancy of which can hardly be overestimated. The actual number of deaths from hydrophobia, it is true, is infinitesimal compared with those from other preventible diseases, but the suffering it causes where it exists, and the apprehension it gives rise to in a thousand cases where it does not exist, would make its annihilation a matter for universal thanksgiving. There are two further considerations that will give additional importance to M. Pasteur's discovery, should it prove to be a genuine one. In the first place, it will immensely stimulate research in connection with analogous diseases, for which it is to be hoped a similar preventive may be found; an attenuated syphilitic virus, for instance, the inoculation of which would infallibly prevent all secondary and tertiary manifestations would rescue thousands from a life of misery. In the second place M. Pasteur's success will be a blow to the anti-vivisection agitation. It will make, or ought to make, every dog-lover the friend of experimental physiology, for even the most rabid anti-vivisectionists must admit that rabid dogs would in all probability have existed to the Greek Kalends if they had had their way in France as well as England.

In the case of Bird *v.* Lord Greville, which came before Mr. Justice Field, on Tuesday, there was once more a deplorable conflict of medical testimony. It is a bold line for any scientific witness to take, to maintain that a house is absolutely free from infection a week after a case of measles has been removed from it, even supposing that the most scientific and thorough disinfection has been carried out in the interval. In the present case the precautions taken were declared by the witnesses for the defendant to have been insufficient, and the judge was no doubt quite right in refusing to believe that all risk of infection had been removed. The plaintiff evidently placed himself in the wrong by not informing the defendant that there was measles in the house before the negotiations for letting it were completed. He ought to have given his tenant the option of breaking off the negotiations, or at any rate of deciding for himself whether the disinfection was carried out to his satisfaction. The decision will, no doubt, make would-be letters of furnished houses more careful, and, it is to be hoped, more candid.

A successful dinner took place at the Holborn Restaurant on the 9th instant, under the Presidency of the Lord Mayor, on behalf of the improvement of the

out-patient department of the Westminster Hospital and the erection of a new medical school. The out-patient department has long been felt to be very inadequate, owing to the small space into which the rooms are crowded. It is decided to proceed as soon as possible with the new building, within a few minutes' walk of the hospital, where ground has been secured on which a thoroughly satisfactory school can be erected. The whole of the lower part of the hospital can then be devoted to the out-patient department. When these improvements are finished, the arrangements for practice and teaching at the Westminster Hospital will be all that can be desired. About 15,000*l.* are necessary to complete the work, which it is hoped will soon be raised. At the dinner the sum of 4,500*l.* was obtained, of which 1,000*l.* was given by the Duke of Westminster.

THOUGH last week the mean temperature of the air in London was as much as 6·5° above the average, and the thermometer never fell below 45°, the total number of deaths was only 12, and the number of deaths from respiratory diseases only 10, below the average. The number of zymotic deaths, on the other hand, was as many as 60 above the average, an excess more than accounted for by the fatal prevalence of measles and whooping-cough. The general death-rate was 19·9, or 0·7 per 1,000 lower than in the previous week, while the zymotic death-rate remained steadily at



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the last six weeks of last quarter, and the past seven weeks of the present quarter.

the same level—3·7. The small-pox epidemic appears to show some signs of abating, only 112 cases having been admitted into hospital during the week, as compared with 266 in the week previous. The deaths from this disease, however, rose from 19 to 30, excluding 12 fatal cases which occurred outside Registration London. Of the whole number of fatal cases 32 belonged to Hackney and East London.

THE returns of the Registrar-Generals of England, Scotland, and Ireland for the first quarter of the present year have just been published, and are on the whole exceptionally favourable. In all the three divisions of the kingdom, both the birth-rate and the death-rate were considerably below the average. In England and Wales the birth-rate, 33·2 per 1,000, was 2·0 below the ten years' average, and lower than in any corresponding quarter since 1850. The death-rate, 19·5 per 1,000, was 3·7 below the ten years' average for the corresponding quarter, and lower than in any winter quarter since civil registration was first commenced. The zymotic death-rate was 2·00 per 1,000, against an average rate of 2·55 in the ten preceding corresponding quarters. In Scotland the general birth-rate for the quarter was 32·1 per 1,000, and the death-rate 19·9, compared with ten years' averages of 34·6 and 23·5 respectively. Unfortunately, the number of zymotic deaths for the whole of Scotland is not given, but only that for the eight large towns, and even here no average for past years is given, so that comparison is impossible. In short, the quarterly return for Scotland compares most unfavourable in respect to completeness with the excellent reports issued from London and Dublin. In Ireland the birth-rate for the quarter, 24·2 per 1,000, was 1·7 below the five years' average, and the death-rate, 19·5, was as much as 3·2 below the average for the same period. The zymotic death-rate was 1·7 per 1,000, a rate comparing very favourably, not only with previous returns from Ireland, but also with the rate for the same quarter in other countries. The same is true of Dublin, which, though it had during the quarter a general death-rate of 26·9 per 1,000, had a zymotic death-rate of only 2·2. This fact makes one inclined to regard the returns with suspicion. It will be seen from the table

PLACES.	Births.		Deaths.		Deaths from Zymotic Diseases.		Percentage of Zymotic Deaths to Total Deaths.
	Total Number.	Rate per 1,000.	Total Number.	Rate per 1,000.	Total Number.	Rate per 1,000	
England and Wales	224,694	33·2	132,097	19·5	13,552	2·00	10·26
Scotland	30,889	32·1	19,115	19·9	—	—	—
Ireland	29,964	24·2	24,119	19·5	1,860	1·70	7·7
Twenty-eight English Towns...	77,354	35·4	46,153	21·1	5,769	2·64	12·2
Eight Scottish Towns ...	11,008	35·7	7,059	22·4	1,140	3·7	16·1
London	34,894	34·8	20,382	20·4	2,699	2·70	13·2
Edinburgh	1,881	30·7	1,260	20·5	221	3·58	17·5
Dublin	2,596	29·6	2,362	26·9	194	2·2	8·6
Paris	16,589	29·7	14,645	26·2	2,576	4·6	17·5
Berlin	10,763	35·2	7,006	22·9	1,332	4·3	19·0
Vienna	7,019	37·1	5,477	28·9	619	3·2	11·3
New York	—	—	8,027	24·2	841	2·4	10·04

that in no other town or district, except Dublin and Ireland, was the proportion of zymotic deaths to the

total deaths less than 10 per cent. In Dublin it was only 8·6 per cent. Is there a possibility of deaths from zymotic disease being more generally overlooked or more frequently registered under other causes in Dublin than elsewhere?

Dr. Yversen's proposal to anæsthetise patients *per rectum* appears likely to have a future. It is claimed that the method is as safe, and as effectual, and not so unpleasant to the patient, as the ordinary method of inhalation. On Dr. Yversen's proposal, Mons. Mollière, of Lyons, tried it in various operations, and with so much success as to encourage the best hopes of its proving really useful. Since the publication of the method, other surgeons appear to have tried it, and in many instances with satisfactory results. The plan of administration is to connect an india-rubber tube with the ether bottle, and to the other extremity a vaginal nozzle is attached, which is introduced into the rectum. The bowels are thoroughly cleansed with a preliminary purge, and the rectum is emptied by an enema shortly before operation. When all is ready the ether bottle is placed in hot water of 140° to 160° F., the temperature varying a little with the amount of ether vapour required: the heat of the water must be kept up. The time required to produce complete anæsthesia appears to vary from six to 30 minutes, and the amount of ether used from two to six ounces. The distension of the bowels with ether vapour appears not to cause any great discomfort: it is quickly absorbed, and can be detected in the patient's breath within a few minutes of the commencement of its exhibition. The period of excitement, which M. Mollière thought was not experienced, appears, however, to be present in many cases, and a fact also not noticed by him, is the occurrence of diarrhœa in a considerable proportion of cases. In one or two, the diarrhœa has been accompanied with the passage of blood, and in one child it is reported that death resulted on the day following the operation, after several large and bloody stools had occurred. It is well, therefore, that surgeons should be put on their guard. Doubtless, experience will soon teach whether the diarrhœa is accidental, or due possibly to the mode of administrating the ether—perhaps, too, a too rapid distension of the bowel with the ether vapour may have to do with it. It must be remembered that the ether vapour once introduced into the intestines cannot be easily withdrawn, and until, therefore, its effects are better known, great caution must be used. The anæsthesia must be produced slowly, that is, the ether must not be placed in too hot water. We shall hope to receive reports as to its mode of action from those who try the method.

Some weeks ago we called attention in a leading article to the dislocation of seasons from which we have been suffering of recent years. The same subject has been treated from a more or less scientific standpoint in a pamphlet recently published in Edinburgh, by Mr. W. Thomson, a well-known authority on viticulture. In this pamphlet he puts forward evidence showing that in recent years there has been a marked deterioration of the seasons, so far as the conditions favouring vegetation are concerned. Trees now refuse to grow where once they flourished vigorously, and fruit crops have shown a marked falling off in the last decade. In many parts the same fruits cannot be grown that were grown forty years ago, and both in North America and Spain the influence of the change of climate on vegetation has been remarked. Mr. Thomson concludes that if the average temperature of the year should sink only a single degree below the point now reached, the depression of the great interest of agriculture will be felt even more seriously than it has been hitherto. The investigation might be extended with advantage to the animal kingdom, and even to the lordly primates. We have already pointed out some of the directions in which a change in the character of the seasons may affect the health of the community. With regard to the first quarter of this year, the vital statistics of which have just been published, the effect on the public health has been all to the good. The mean temperature of the quarter, we learn, was 4·7° and 3·5° above the averages of 113 years and 43 years respectively, while on only three occasions since 1771, has that mean been exceeded, namely, in 1822, 1846, and 1872. As in great measure a result of this, the death rate for the quarter was 3·7 below the mean rate of the ten preceding corresponding quarters and lower than on any winter quarter on record. That means that 33,600 persons survived who would have died with an average death rate. Of course, sooner or later we shall pay for it in one way or another.

The past and present students of Guy's Hospital celebrated their Biennial Festival, on the 13th instant, at the Holborn Restaurant. A very large attendance, and the genial presence of Dr. Braxton Hicks in the chair, combined to render the proceedings thoroughly successful. Many of the speeches were of unusual interest, and, it may be added, of unusual length. Responding to the toast of the Army, Surgeon-Major Hume-Spry seized the opportunity for a vehement vindication of the Army Medical Service during the Egyptian Campaign of 1882, the supposed break-down of which he showed to have been due to the delay of the Transport Department in arriving at Ismailia. The speech of the evening was that in which Dr. Wilks replied to the toast of the Medical School. Alluding to the differences which a few years ago had arisen between the Medical Staff and the Governing Body, he showed conclusively that such temporary difficulties had become inevitable under the then existing regulations and customs. Not only had all difficulties and differences of opinion been thoroughly overcome and set at rest, but a new state of things had arisen, which placed the Hospital in a far better position than before. The Staff were sufficiently represented in the government of the Hospital, the nursing had become established on a satisfactory footing, and the perfect freedom of the students had been preserved. Similar views were expressed on behalf of the governing body by the Treasurer and Mr. Hoare, both of whom acknowledged in graceful terms the value of cordial co-operation between the Hospital and the Medical School. The new system of payment by patients was referred to by more than one speaker, and appeared to

receive general approval, especially when it was announced that both paying and free patients were alike employed for general clinical instruction. The loss which cast so deep a shadow over Guy's last November, naturally gave a tinge of sadness even to these festive proceedings, and the memory of Dr. Hilton Fagge, was present in the minds of all his old colleagues, friends and pupils. The success of the meeting was undoubted, and must be mainly attributed to the energy, courtesy, and enterprise of the Honorary Secretary, Mr. N. Davies-Colley.

Speculation is still rife as to which of the several distinguished candidates for the Cambridge pathological chair will secure the favour of the electors. Meanwhile the friends of the various candidates have quite properly determined that the electors shall be thoroughly informed as to the merits of their respective favourites. Considerably over one hundred University graduates who have been or still are pupils of Mr. Charles Stewart, of St. Thomas's Hospital, have signed a memorial to the electors in which they state that they regard Mr. Stewart's teaching of pathology "with nothing short of enthusiasm, feeling indebted to him not only for the matter which he has taught us, but also for his excellent method, which cannot fail to be of the greatest service to us throughout life, no less in all other than in pathological studies." The fact that sixty-six of the signatories are old Cambridge men may be expected to weigh considerably with the electors. We also hear that another of the candidates —Professor Hamilton, of Aberdeen University—is to be presented next week with a testimonial which is being largely signed by graduates and students all over the country who have been at one time his pupils.

Our Vienna correspondent informs us that at a recent meeting of the Vienna Society of Physicians, Dr. Weinlechner showed to the Society an enormous lipoma, weighing nearly four pounds, which he had removed from the inner side of the left thigh of a man, aged 27. The lipoma measured ten inches by seven, was two and a half inches thick, and was situated between the muscles. As long as the patient was in a state of rest, the lipoma formed a large swelling behind the adductors, which extended as far as the popliteal space, and after its removal there remained a large cavity, at the bottom of which the femoral artery and vein were to be seen quite bare. The more the muscles contracted, the further the lipoma disappeared into the sub-muscular stratum. The removal was easy, and there is nothing particular to be recorded about it. On cutting through the tumour, several round brown nodules of the size of walnuts were discovered, consisting of fat and partially calcified, especially at their circumference. One of these knobs, which was evidently due to a disintegrating process, presented a cavity which contained a thick brown fluid, resembling fat, and consisting in great part of that substance, according to the result of an examination by Professor Ludwig. The smaller nodules, which were in part calcified, were very hard, on account of excessive development of tissue in them. If the larger nodule which contained liquid fat had been punctured before the operation, there would have been great doubt as to the diagnosis.

In the aquarium of the Health Exhibition, the biological student has a fine opportunity of studying the fungus disease of fresh water fish. Professor Huxley, in his investigations on the salmon disease, identified the fungus as an ordinary pathogenic Saprolegnier; it is composed of a mycelium consisting of a feltwork of fine tubular filaments or hyphæ; many of the hyphæ are terminated by elongated oval enlargments or zoosporangia, within the latter are the zoospores, which escape through the apex of the zoosporangia and being actively or passively dispersed through the water, plant themselves as it were on dead or living animal substances. The tanks containing the bream, roach, pike and carp are more particularly affected. Grey patches of a down-like material are seen on the back, sides, and head of many of the fish, one large roach is almost encased by it, a pike has a heavy fringe like a beard attached to the lower jaw, and almost the whole of the scales hidden by miniature jungles of hyphæ. Owing to the ravages of this disease, without doubt there will be considerable mortality among the fish during the next few months.

A case of fraudulent manipulation of a thermometer producing great elevation of the mercury is reported from France. Dr. du Cartol brought this case before the Hospital Medical Society of Paris on April 25th, in order to show the part played by simulation in the production of these phenomena. This has often been shown before, and the case is chiefly remarkable for the careless observation which rendered the repeated occurrence of the high readings possible. An hysterical girl frightened the doctors by frequently presenting temperatures, according to the thermometric observations, of great elevation, *e.g.*, up to 118° F. with a clinical thermometer, and as high as 160° and 212° F. with an ordinary instrument. Although for long after the high registrations had been first observed she was placed under a "strict system of watching," it was not till after the trouble had been taken of procuring more thermometers that, according to the reporter, the watching was "crowned with success." It was then found that the girl had procured these results by reiterated percussion of the free end of the thermometrical tube. It seems hardly conceivable that an observer really on the alert, as every one should be with an hysterical patient, and concerned with such a matter as these abnormally high temperatures, should not at the outset have rendered all manipulation of the instrument by the patient impossible, at the same time removing all possible causes of artificial heat. We are reminded by this case of a similar one brought before the Clinical Society a few years ago when the patient, after a long continued series of abnormally high temperatures, confessed that she had inserted the thermometer into hot poultices.

It is of course difficult to eliminate *all* possible means of fraud in these cases, but there are obvious precautions to be taken without which the publication of such a case as the above is a waste of time.

It is not, however, to be inferred from these clear cases of fraud that the same explanation can be applied to all reported cases of paradoxical temperatures. Some cases remain, as those which have been detailed by Mr. Teale, Dr. Donkin, and others, where all fraudulent methods of obtaining these results were completely out of the question. Certain physical conditions surrounding the bulb of the thermometer (apart from the state of the patient), as explained not long ago by Dr. W. Roberts, of Manchester, may possibly account for some of the reported cases; and imperfectly constructed thermometers will probably account for many more. It is, perhaps, not generally known that the mercury in many thermometers shows extraordinary vagaries at certain parts of the tube—rising correctly up to a certain degree, and above that point being absolutely useless, evincing often an error of many degrees. This can be shown by placing thermometers in warm water, when some of these imperfectly constructed ones will rise several degrees higher than others which are accurate. That jolting or shaking a clinical thermometer will raise the index to almost any attainable height is well known perhaps to every one who is in the habit of carrying one of these instruments in his pocket, especially if it be carried for some time without being used. Still, with all these possible explanations, it would be premature to close the question of paradoxical temperatures, for direct personal observation with several thermometers, when manipulation and artificial heat were definitely excluded, has certainly in some well reported cases, such as those above quoted, made the hypothesis of fraud untenable, and that of thermometrical error somewhat unlikely.

In the *Philadelphia Medical Times*, April 5th, Dr. Formad, Lecturer on Experimental Pathology in the University of Pennsylvania, terminates the publication of an important paper which he read at the Medical Society, and in which he enters upon the most elaborate criticism of Koch's views that has yet appeared. He sums up as follows:—(1) That the bacillus of Koch is a valuable diagnostic sign of tubercular disease. (2) That nothing is proved by its discovery as to the ætiology of tuberculosis. (3) That we are not justified in too readily accepting the bacillus doctrine, such acceptance being likely to do more harm than good. (4) That neither phthisis, nor any form of tuberculosis, is contagious.

In a supplement to the *London Gazette*, published on Wednesday, the promotions awarded by the War Office and Admiralty for distinguished service in the Soudan Campaign were announced. Brigade-Surgeon M'Dowell, who was in medical charge of the expedition, is appointed a Companion of the Bath, and Surgeon-Major Catherwood and Surgeon-Major Wilson, who have hitherto enjoyed the relative rank of Major, are promoted to the relative rank of Lieutenant-Colonel of the Naval Officers' Staff. Surgeon Martin is made a Fleet-Surgeon, and Surgeon H. E. F. Cross is made a Staff-Surgeon. Surgeon Gimlette will be promoted to Staff-Surgeon on April 1st, 1885, a rather unkind date to fix upon.

THE MAJOR PREMISS OF THE MEDICAL REFORMER.

The fascinating belief that lays hold of every fresh advocate of Medical reform, and serves him henceforward as the major premiss of his arguments and the motive power of his advocacy, is—we need hardly say—the belief in the principle of representation. He sees around him Councils and Corporations stricken with what he takes to be either obstinacy, apathy, or blindness, refusing to set out on the path which to him seems so easy and promising. He sees old abuses persisting, vested interests fighting and prevailing against innovation, while the greater interests of the student, the practitioner and the public are forgotten or ignored. He sees the teachers and leaders whom he had learnt to trust and revere allying themselves with obstruction, and stoutly defending the *status quo* as soon as they come within the charmed circle of authority. And so he is driven to place his trust in the only class which has hitherto not been tried and found wanting, and to advocate with fervency the claims of the body of the profession to control the management of their own affairs. And yet the journalist who wishes to be reasonable and temperate, to be faithful to his calling and his profession, and to keep himself free from political, professional or youthful bias, must often find himself asking whether this belief with which he has started is after all a trustworthy one. There are, indeed, facts enough to give him pause. The fact already mentioned, that honest and liberal-minded men, who were once, perhaps, earnest believers in the dogma of representation, are found to surrender it as the years go on, or at any rate come to distrust it so much as to vote against its practical application—this fact alone can hardly fail to influence a man with a reverent as well as a reforming mind. For he cannot with justice attribute all these defections to the numbing influence of age and "place." Then, if he looks at the great body of the profession, he finds most of them entirely indifferent to this pet dogma of his. Some are lost in scientific work, others immersed in the cares of practice, and all, or nearly all, care next to nothing about Medical reform. Again, if he looks at his allies, he finds many of them either manifestly playing for their own hands, or else fighting for hobbies and notions with which he can have no sympathy. He finds himself cheek by jowl with medical advertisers, men who send bulletins and write letters to the lay press, men who run new special hospitals, men who clamour for medical defence, anti-vivisectionists, anti-vaccinationists, palterers with homœopathy and all the tag-rag and bob-tail of the profession. The medical journals, too, which are at one with him in his reform crusade, often hold and advocate opinions on other points which to him seem fatally wrong-headed. Further, if he looks to experience to support his belief, he finds, in the only body which claims to rest on a popular basis, the representative principle reduced to a farce, and the elections as much in the hands of wire-pullers as in the closest Corporations. These are facts sufficient to shake the faith of any young reformer. Are there

other considerations to re-establish him? We think there are.

In the first place—if the action of lay authorities is any argument—the Government, in their Medical Bill, have approved of the application of the representative principle to the medical profession. Should this Bill pass, the Medical Council will be the most representative body connected with the profession, provided always that the election of the direct representatives does not fall, as we dread it may, into the hands of the politicians who govern the British Medical Association. In the second place, it is worth observing that the licensing bodies are liberal and enlightened in exact proportion as they are governed on a popular basis. The University of London, for instance, is more liberal and enlightened than the College of Physicians; the College of Physicians is less conservative than the College of Surgeons, which, in its turn, is revolutionary compared with the Apothecaries' Society. The London University, of course, is at present only partially governed on the principle of direct representation, a large section of the Senate being chosen by the Crown, that is on the indirect representative principle; but Convocation—which all graduates may attend, and not only a higher grade as in the case of the College of Physicians—has a real influence on the policy of the Senate. Of the three Metropolitan Corporations the College in Pall Mall is certainly the most popularly constituted, for the President is chosen by the body of the Fellows, whereas in Lincoln's Inn Fields he is selected by the Council, and at Blackfriars by the date of his baptismal certificate.

But the most important consideration in favour of the representative principle is that it is an educating principle. If we waited to extend a suffrage until the proposed new voters were competent or anxious to vote, reform would tarry till Doomsday. In politics it has been held and proved by experience that the right to vote brings in its train the competency and the wish to vote, and we do not see why it should prove otherwise in the medical profession. If the body of the profession are careless and ignorant about medical politics; if the Members of the College of Surgeons and the Licentiates of the Apothecaries' Society are indifferent as to whether they possess a voice in the management of those Corporations or not, it is simply because representation has hitherto been denied them. Give them a vote, and in a few years' time they will show that they know how to use it. This consideration is in itself sufficient to reanimate the doubting advocate of Medical reform. We want to see the profession directly represented on the Medical Council, and on the governing bodies of the Corporations, not so much for any immediate effect that it would have on the conduct of those bodies, as for the new vigour it would give to medical politics, and the new solidarity it would foster in the profession. The representative principle has only failed, we believe, in the case of the British Medical Association because the interests involved were not important or visible enough to arouse the members from their lethargy. But if real power and important issues were involved, we believe that the profession would soon rise to its new responsibilities. And then the busybodies who now mix themselves up with Medical reform would be lost in the thousands of honest and patriotic voters, and the exercised journalist might retire with contentment, having seen his brightest dreams fulfilled.

OVARIOTOMY IN COWS.

The difficulties which attend the securing and maintenance of an adequate supply of pure fresh milk seem to be felt as keenly by the inhabitants of the large cities of the United States as they long have been by those of our own. If it be true, as stated, that in the City of New York the number of deaths among children under five years of age was reduced by 3,673 in last year below that of 1882 in consequence of improvements effected in the milk supply—"the adulteration having been lessened to the extent of 100,000 quarts daily"—the fact affords a hopeful augury for the future, as well as a suggestive comment on the past. But however great the care used in the initial processes of obtaining and transporting the milk from the cow, and however thorough and costly may be the supervision which is exercised over its subsequent manipulation and distribution; there will always, under present conditions, remain one disturbing element beyond the sphere of human control. Not only is milk a complex mixture of organic substances liable to easily-provoked chemical changes; but its secretion is the result of a highly specialised physiological function, and it is peculiarly subject to perturbations of quality in connection with variations in the life processes of the animal which yields it.

A cow giving fourteen quarts a day when she "comes in" would be accounted a good one; every two or three weeks there will occur a perceptible alteration in the quality and character of her milk, and this change will last for a few days, after which she will yield rather less than before. At the end of ten months she will be giving only some three or four quarts of milk, and this of a kind not suitable for use, so that she must be dried off and not milked for the remaining two months of the year. In other words, under most favourable circumstances, such an animal would yield an average of nine quarts a day for ten months and none during the other two months—or a total of 2,736 quarts a year, and this subject to the periodical changes in quality which have been alluded to.

A means whereby the yield may be maintained at a higher average and for an indefinite period, and that, without incurring any of the risks attending repeated pregnancy and parturition, while the recurrent *œstrus* with its attendant physiological disturbances is also avoided, would prove a boon alike to the breeder, the farmer, and the milk consumer. Such are the results claimed for the spaying of milch cattle. In this country the operation is sometimes performed on young cattle in order that they may be the earlier and more easily fattened; and it is extensively practised by the great stock-raisers of Texas and elsewhere simply for the purpose of making good beef-cattle, with a loss of but five or six in each thousand animals operated upon. The only points noticed by the butcher

are an improved amount and quality of flesh, some matting of the tissues at the site of the scar, and the absence of the ovaries. But as an operation performed on the adult cow *with the object of increasing the yield of milk and making it persistent*, it is almost, if not quite, unknown in England, though it has been advocated in France, and has been carried out by some farmers during the past twenty years in America, where it is now coming into extended favour.

The operation is not a difficult one. The incision is usually made for convenience sake in the left flank, under a twenty per cent. carbolic spray. The operator having reached and recognised the uterus, is guided by one of its horns to an ovary which is removed by an ecraseur, or by simply twisting it between the thumb-nail and index finger; the second ovary is sought and treated in a similar manner; the external wound is then closed with a few interrupted sutures. The cow is kept in the stall on low diet for two or three days, but is turned out to pasture, quite well, at the end of a week. The milk sometimes dries up for a few days after the operation. The process is represented as being but slightly painful to the animal, signs of discomfort being exhibited only during the preliminary incision of the skin, and while the sutures are being inserted at the close of the operation; the thickness and great toughness of the hide make this latter procedure the most difficult of all. Dr. Mecuen, who has operated on several occasions, goes so far as to say that "while the arm and hand are within the belly of the cow the animal really seems to enjoy it, acting as a dog does when one rubs its head."

The loss of life amongst the animals operated on appears not to exceed five or six per cent. On the other hand, from the time of the animal's recovery, the yield of milk becomes continuous, with but a very slight and gradual decrease in amount from year to year. Thus, a cow spayed when giving ten-and-a-half quarts a day, now yields, after nineteen months of constant milking, nine-and-a-half daily, and is still in full milk. In other words a good cow may be made to average nine quarts a day for every day of the year, thus yielding some 5,110 quarts in the twelve months against the 2,736 which have been already mentioned as obtainable from a very good milker in the natural state and under exceptionally favourable circumstances. Moreover the yield continues at or near this rate for year after year, if the cow remain in good health, and provided she be properly fed and attended to. If overfed, the quantity of milk will lessen, and she will be apt, like all castrated animals, to fatten rapidly, and to develop flesh which is pronounced to be more tender and juicy than ox-beef. Cows thus treated have continued to yield milk, without intermission, for more than eleven years. The milk itself is stated to be rather improved in quality than otherwise, as regards its adaptation to digestion by the human stomach; the percentage of sugar and of fat are increased, and that of the casein slightly diminished, while its keeping quality is maintained at a uniform standard.

Such advantages certainly appear a more than sufficient set-off against the possible dangers of an operation which is admittedly not without risk, but of which one who has had more than two years' practical experience in performing it says that the risk, when the operation is properly performed, is less than in ordinary cases of calving. That the secretion of milk should be in no way practically diminished after removal of the ovaries is a corroboration of the view that the milch-cow of the present day is largely an artificial product, the result of careful treatment and selection carried out during numberless successive generations. Somewhat analogous cases of an excessive development of the mammary function are not unknown amongst certain varieties of the human race. Thus, amongst the Kafirs, whose women are—in this respect at all events—much on a par with the cattle in exchange for which they are bartered to their husbands, it is not rare to meet a mother suckling her third child of some ten months old, while the eldest, a boy of four, still like his brother and sister, draws all his nourishment from the same source. In the early days of the Kimberley Diamond Fields, a considerable proportion of such milk as was then obtainable—"at a price"—owned a similar origin, and it was a beverage on that account altogether abjured by many of the miners.

REVIEWS AND NOTICES OF BOOKS.

A COLLECTIVE INVESTIGATION.[1]

The almost overwhelming flood of fragmentary literature upon a single point in the ætiology of phthisis which has inundated the medical world since the publication of Dr. Koch's discovery, has for the time obliterated the steady-going stream of investigation and thought which takes its rise in the purely clinical features of the disease. At such a time the perusal of a carefully compiled treatise on the different aspects of family phthisis, in relation especially to heredity and life insurance, is of more than ordinary interest. Whilst the fascinating ubiquity of the tubercle bacillus is constantly leading both lay and medical readers to ask themselves how it is possible that they can ever escape the microscopic scourge, it is almost refreshing to turn aside for a time from such speculations and learn from the dry teaching of hard and unbending facts, what the experience of the past has been and what the probabilities of the present and the future. Whether or not bacilli be found in the sputa or the tissues of persons suffering from phthisis, no careful clinical observer will ever venture to diagnose the exact condition of the disease, or endeavour to decide the probability of its future course, without a close and searching enquiry into family history. More particularly is this the case where life insurance is concerned, and throughout the present work, wherever a practical conclusion is evolved from the evidence adduced, the author has been careful to keep this point in view. The scope of the greater part of the work may be briefly described as an analytical enquiry into the evidence with respect to the influence of heredity upon a very large number

[1] Family Phthisis, by Reginald E. Thompson, M.D. Smith, Elder, and Co., London; pp. 238.

of patients admitted into the Brompton Hospital between the years 1855 and 1880. Of these patients, about three-fourths of the number were derived from the metropolitan area. Those cases only have been employed of which full and complete records have been kept. The work is indeed a "collective investigation," in which a guarantee for the scientific value of the facts recorded is given by the conditions under which the observations were made, and by the high professional status of the observers who made them.

That phthisis may be hereditary is no new proposition, but the exact relation which the hereditary bear to the acquired cases is not so clearly defined, and forms one of the chief themes of the earlier part of Dr. Thompson's book. The influence of double or single parental inheritance, of atavism and of other family implications; the different modes of inheritance and the laws which appear to prevail in them, the relation of family inheritance to the business of life insurance, and, finally, the prevention of phthisis in families, are all in turn discussed in the light afforded by voluminous statistical tables. To the possible errors, deficiencies or exaggerations, which are ever liable to creep into calculations founded on statistical evidence, the author shews himself to be keenly alive, and in his earlier chapters he defends at some length the probable trustworthiness of the information given by hospital patients, which he is quite prepared to rank on an equality with, if not higher than, that afforded by applicants for life insurance. The former, as he shrewdly observes, have no motive for concealment of their personal or family infirmities. Without following out the various analytical processes in detail, it will be sufficient for our present purpose if we indicate roughly the main results arrived at by their means. In the non-hereditary form of phthisis, a striking difference is manifest in the course of the disease in males and females respectively. The former are most subject to attack between the ages of 20 and 35, the disease becoming subacute in nearly half the cases, although with a marked tendency to copious hæmorrhage; a striking contrast is presented in the case of females, in whom the attack generally occurs between the twentieth and the twenty-fifth year, the disease becoming acute in half the cases, with much less tendency to hæmorrhage. Comparing these results with those obtained from a similar series of cases of hereditary phthisis, the powers of resistance which appear to be present in the male in the acquired cases are seen to be diminished, the period of attack being earlier, and the number of acute and fatal cases greater. In the females with hereditary phthisis, there is a still greater liability to early attack, the rapidly fatal cases are much more numerous, and a greater tendency to hæmorrhage becomes manifested.

The influence of the paternal and maternal inheritance upon males and females respectively is worked out in a similar manner, and in considering the more complicated question of cross-inheritance these influences are clearly followed out. Atavism, or the transmission of the hereditary influence through a generation which in itself betrays no sign of its burden, is manifest here, as in insanity and some other conditions, and would appear to gain rather than lose in the intensity of its effects. Experience points to the mother as being the more frequent agent in this silent transmission, and especially in cases of hæmorrhage. A chapter on the laws of phthisical inheritance, consisting mainly of an application of the results quoted in the foregoing chapters to certain of the general laws of inheritance propounded by Mr. Darwin, will be read with much interest. As a fitting conclusion to his truly scientific investigations, the author appends some thoroughly practical remarks upon their application to life insurance and to the most effectual means of checking the spread of acquired or inherited phthisis in families. It will thus be seen that a large area of investigation has been covered within the limits of this compact and unpretentious volume. His readers will duly appreciate the statement made by Dr. Thompson in his preface, that the work is the outcome of much time and labour.

ABSTRACTS AND EXTRACTS.

M. PASTEUR ON THE VIRUS OF RABIES.

THE following is a literal translation of the important paper on the virus of rabies communicated to the Paris Académie des Sciences, on Monday evening, by M. Pasteur, and his fellow workers MM. Chamberland and Roux:—

The important fact that certain infective poisons vary in respect to their virulence, and that insusceptibility to a virus may be secured by means of another virus of less intensity, is at the present moment not only an abstract scientific discovery, but has found an application in the domain of practice. Research being once turned in this direction, it is easy to understand how great an interest attaches to investigations into the methods of attenuation appropriate to new viruses. I have the honour, on the present occasion, to bring under the notice of the Academy an advance in this direction, in reference to rabies.

I.—If the poison of rabies be transmitted from the dog to the monkey, and then from monkey to monkey, its virulence diminishes with each inoculation. If the virus, which has been thus enfeebled by inoculation from monkey to monkey, be then re-transmitted to a dog, a rabbit, or a guinea-pig, it still remains attenuated. In other words, the virulence never returns at once to the degree found in the mad dog of the streets.

II.—The virulence of the poison of rabies is increased when it is transmitted from rabbit to rabbit, or from guinea-pig to guinea-pig. When the virulence has thus increased and reached its maximum in the rabbit, the virus still retains this high degree of virulence when transmitted to the dog, and is evidently much more intensely virulent than the virus of the mad dog of the streets. Under these conditions, indeed, the poison is so virulent, that when inoculated into the circulation of a dog, fatal rabies is the invariable result.

III.—Although the virulence of the poison is intensified in its passage from rabbit to rabbit, and from guinea-pig to guinea-pig, it requires many successive inoculations before it recovers its maximum virulence, when it has been previously attenuated in the monkey. Further, the poison found in the mad dog of the streets, which, as I have just said, is far from being of maximum virulence, when it is inoculated in the rabbit, requires to be passed through many individual rabbits before it attains that maximum.

If we apply rationally the results I have just communicated, we can easily render dogs proof against rabies. The investigator may have at his disposal the virus of rabies in different degrees of attenuation; the non-fatal kinds preserving the economy from the effects of the more active and fatal kinds. Let us take an example. We take the virus

of rabies from a rabbit which has died after inoculation by trephining at the end of a period of incubation, exceeding by several days the shortest period of incubation commonly met with in the rabbit. This period invariably occurs between the seventh and eighth day after inoculation by trephining with poison of maximum virulence. The virus from a rabbit, with the longest incubation period, is inoculated, again by trephining, in a second rabbit; the poison from this rabbit in a third. Each time the poison, which is becoming less and less virulent, is communicated to a dog. The latter is at length found capable of resisting a poison of fatal virulence. It becomes, in fact, entirely proof against rabies, when the poison of the mad dog of the streets is introduced into its system, either by intra-venous inoculation or by trephining.

By inoculations with the blood of animals I have been able greatly to simplify the operation of vaccination, and to produce in the dog the most marked insusceptibility to this disease. I shall shortly communicate to the Academy the total result of what I have found in connection with this point.

It will be of considerable interest, both now and up to the distant epoch when rabies has become extinct as the result of vaccination, to be able to prevent the disease developing after bites by rabid dogs. On this point the first experiments that I have made give me the greatest hopes of success. Thanks to the length of the period of incubation of rabies when communicated by the bite of a rabid animal, I have reason to believe that we can with certainty produce a condition of insusceptibility in those who are bitten before the fatal malady is due.

The first results are very favourable to this view, but it will be necessary to repeat the experiments to an infinite extent on all manner of animals, before we shall have the courage to try this mode of prophylaxis on the human subject.

The Academy will understand that, in spite of the confidence inspired by the numerous experiments I have made during the last four years, it is not without apprehension that I now publish facts which point to nothing less than a possible prophylaxis against rabies.

If I had had sufficient material at my disposal, I should have preferred to defer this communication until I had asked some of my colleagues at this Academy and at the Academy of Medicine to examine the conclusions I have just made known. In deference to these scruples and motives, I took the liberty of writing a few days ago to M. Fallières, Minister of Public Instruction, asking him to be good enough to appoint a Commission to whom I might submit the dogs which have been made proof against rabies. The crucial test which I would propose, would consist in the first place in taking from my kennels twenty dogs proof against rabies, and placing them side by side with twenty dogs intended to serve as my witnesses. We should then have these forty animals bitten successively by mad dogs. If the facts which I have enunciated are correct, the twenty dogs which I believe to be proof against the disease would all remain healthy, while the twenty witness dogs would become infected with rabies. In a second and not less conclusive experiment, we should take forty dogs—twenty vaccinated before the Commission, and twenty not vaccinated. The forty dogs would then be inoculated by trephining with the virus of the mad dog of the streets. The twenty vaccinated dogs would be proof against the infection, while the other twenty would all die of rabies, with symptoms either of paralysis or madness.

OBSTETRICS.

The Relation between Ovulation and Menstruation.—A recent number of the *Archiv für Gynäkologie*, contains an account of an elaborate investigation by Professor Leopold, of Dresden, into the relation between ovulation and menstruation, as evidenced by the condition of the corpus luteum at different periods of the menstrual cycle. The author criticises the cases upon which those observers who have advanced opinions on the subject have based them; and he reports a number of *post-mortem* examinations in which the date of the last menstruation was known, and no disease was present of such a nature as to modify the genital functions. From these cases, together with those previously published which stand the test of his criticism, he draws his own conclusions. The question at issue is this:—What is the relation in point of time between the ripening and bursting of a Graafian follicle and the formation of a corpus luteum, on the one hand; and the monthly hæmorrhage from the uterus, on the other? Does a Graafian follicle burst with each menstruation, and if so, when? Is it before, during, or after the flow, or in the inter-menstrual period? The cases examined evidence the following facts. Ripe follicles to all appearance about to burst—*i.e.*, prominent, thinned at the most projecting part, with a ring of vascularity surrounding the thinned point—and also recently ruptured follicles, have been seen at all periods of the menstrual cycle. The bursting of the follicle does not seem to depend upon its size, for large and small have alike been seen showing the signs of impending rupture. A large and small follicle may exist side by side, and the small one burst first, its rupture being sometimes hastened by the pressure of the adjacent larger one. As observation thus shows that ova may be discharged at any period of the menstrual cycle, it follows that a healthy woman who menstruates may conceive at any time. Dr. Leopold finds also, that two or three follicles may ripen simultaneously, and burst at about the same time, or one, being separated from its neighbour only by a very thin septum, may burst into it. This, which our author believes has not been described before, offers one explanation of plural pregnancies. Further, he has observed appearances which show, that follicles may ripen, blood be effused into them, and yet no rupture take place, but the follicle retrogrades without bursting. Dalton has described examples of the same thing. Professor Leopold suggests that we have here a possible explanation of ovarian dysmenorrhœa. Turning to the examination of the corpus luteum, our author summarises the changes in it as follows. The first day we have simply the ruptured follicle filled with blood. About the third day it presents itself as a large cavity full of effused blood. By about the eighth day, a thin border, with a brighter coloured interior, becomes more sharply defined. By the twelfth day the border has become thicker and thrown into folds. By the sixteenth day the colour of the follicle is pale red or yellowish. Towards the twentieth day the nucleus has considerably shrunk, the border is yellower, and has thrown out folds and striæ towards the centre. From the twenty-fourth to the thirty-fifth day there is a pale nucleus with a bright yellow, closely folded capsule. But these descriptions are only true in a very general sense, because between different corpora lutea of the same date there are very wide differences, both as to size and colour. The age of a corpus luteum, therefore, can be only approximately, not exactly, stated. There is a great difference, however, between a "typical" and an "atypical" corpus luteum. The typical corpus luteum is that formed by a follicle which bursts during the menstrual congestion; it is larger, more turgescent with blood, and retrogrades more slowly, than the atypical, *i.e.*, the remains of a follicle bursting in the inter-menstrual period. Menstruation may take place without the bursting of a follicle, and therefore without the formation of a corpus luteum; and the typical corpus luteum may be produced without menstrual hæmorrhage, if the menstrual congestion be present. The menstrual congestion of the uterus, and therefore of the ovaries, precedes the flow by some time; its intensity is dependent on the condition of the general health, and the state of the uterus, especially of its mucous membrane; and its rhythm is liable to be disturbed by many different causes. The *rôle* of the uterus in menstruation is only a passive one; the relation of its periodic bleeding to ovulation may be compared to that of the hands on a clock face to the works within. In short; ovulation may take place without menstruation, and menstruation without ovulation; follicles may burst and ova be discharged at any time, but do so with preponderating frequency under the influence of the vascularity and tension due to the menstrual congestion.

Bipolar Version in Placenta Prævia.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie*

contains an article on this subject, by Dr. C. Behm, of Berlin. It is based on cases observed in the clinic of Professor Gusserow. The author's experience of placenta prævia consists of 53 cases, of which the first thirteen were treated by plugging, rupture of the membranes and version by the old "internal" method. They comprised five cases, in which the placenta was completely prævia; five partial or "lateral" (to use Dr. Behm's word), and three marginal. Of the thirteen, four mothers died, that is 30·8 per cent., and of the nine who survived, four suffered from febrile illness during the lying-in. The children were fourteen in number, and ten of them died during or soon after birth, a mortality of 71·4 per cent. These per centages Dr. Behm compares with the statistical statements of other writers, and finds that they represent about an average mortality. The principle of treatment adopted by Dr. Behm, in his latter 40 cases, was that of bimanual version, after the method of Braxton Hicks, as early as possible, one foot being brought down through the os, and the labour then left to be gradually completed by the natural efforts, the pressure of the breech on the cervix being trusted to restrain hæmorrhage. The result was, that he lost not a single mother out of the 40. The infantile mortality was 77·5 per cent. Hofmeier (whose paper we noticed in the *Medical Times and Gazette*, 1883, Vol. i., p. 220, at the time of its appearance), out of 37 cases, treated in a similar way, only lost one mother, but of the children 63 per cent. In Dr. Behm's series of 40 cases, he performed early bipolar version 30 times. In seven the membranes ruptured early, so that version had to be longer delayed, and three were cases of head presentation, in which delivery was left to Nature. The advantages of this plan of treatment, Dr. Behm points out are these:—(1) The necessary intervention is effected early, as soon as the os will admit two fingers, before the mother has lost much blood, or become exhausted. (2) The breech, drawn down upon the os by slight pressure, forms a perfect tampon. (3) As delivery is effected slowly, shock is avoided. As to the technique of the operation, Dr. Behm remarks that two fingers should be introduced through the os. If the cervix will not admit two fingers, it should be dilated with water bags. If the presentation of the placenta be complete, it will be found that it separates most easily on the side nearest to its edge; if the edge cannot be reached, it is best to perforate the placenta. After the breech has been brought into the os uteri, expulsion is best left to Nature. The accoucheur's motto in these cases should be, "haste with patience" (*Eile mit Weile*), haste in turning, patience in extraction. (We confidently call attention to the results of this practice, because we know it to be that advocated by some of the best English accoucheurs.)

Rupture of the Uterus.—In the *New York Medical Journal* for March 1st, Dr. S. Gilbert reports the case of a healthy woman, aged 34, who was attended in her fifth confinement in December, 1883. Labour was tedious and the pains ineffective; the uterine walls seemed abnormally thin, the fœtus appearing to lie just beneath the skin of the abdomen, on an external examination. Ultimately the delivery was effected with great difficulty, the uterus being inert and the child very large; the child presented by the breech, and when the last arm had been brought down, the os "contracted round the neck of the child with the grasp of a vice." The head was extracted in the course of fifteen minutes; as it emerged from the os, a sharp tearing sound was heard and the patient collapsed. The child, a female, was dead. The uterus contracted promptly; but on following up the funis it was found to lead through a rent in the cervix (slightly implicating the uterine wall proper) into the abdominal cavity, whence the placenta was, without much difficulty, removed. Hæmorrhage was profuse, and the patient apparently moribund. Stimulants and ergot were given, and the patient surrounded with hot flat-irons; sulphate of morphia, a quarter of a grain every two hours, unless the patient slept or was entirely free from pain, was ordered; and hot turpentine stupes were applied to the tympanitic abdomen. The morphia was continued in full doses for eleven days; vaginal injections containing carbolic acid two and-a-half per cent. were used night and morning for three weeks, *i.e.* until all discharge ceased. There was great tympanites and tenderness for several days, and the lochia were offensive and contained pus in large quantities; but all bad symptoms gradually subsided, the woman was up in a month, and on February 1st, was quite well. The temperature only once exceeded 103° F. The favourable result of a very serious case is attributed to the good constitution of the patient, to the full and continuous employment of morphia, and to the antiseptic douches.

The Measurement of the Foot as an Index to the Size of the Child.—One main difficulty in the attainment of precision in the determination of the most suitable method of delivery in difficult labour, is that we have no means of exactly estimating, before attempting delivery, the size of the fœtal head. We can measure the pelvis, but not the head; one factor, therefore, of the mechanical problem, is an undetermined quantity. A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a paper by Dr. Alfred Gönner, of Basel, in which he has made an attempt to overcome this difficulty, so far as head last cases are concerned. His plan is to measure the foot, and from this datum to estimate the size of the child, and, therefore, of the head. He points out that the measurement of the foot is one easily made, and, therefore, that his method has in this respect the advantage over the other modes in which it has been proposed to estimate the size of the child, such as measuring its length, and measuring the distance between the fontanelles. Dr. Gönner has measured and weighed 100 children. He comes to this conclusion, that if the foot measures more than 8 centimetres (nearly 3¼ inches) in length, the child weighs more than 3,000 grammes (about 6 lb. 10 oz.). A foot more than 3¼ inches long, therefore, makes it probable that the child is above the average weight, and that there will be more than usual difficulty in the extraction of the head. If the foot be only 7·6 centimetres (about 3 inches) long, a child of moderate dimensions may be expected; and a foot length of only 7·3 centimetres (a little more than 2¾ inches) would justify us in assuming that the child was premature. It is interesting to note also, that Dr. Gönner finds that the feet of female children are smaller in proportion to the size of the body than those of males. He suggests that the children of the educated classes will probably have relatively smaller feet than those of the labouring classes, but his own field of observation has not supplied him with the materials for testing this point.

The Mechanical Treatment of the Retroverted Adherent Uterus.—In a paper on this subject, published in the *Boston Medical and Surgical Journal*, February 28th, Dr. J. W. Elliot advocates the gradual stretching of the adhesions by carefully-regulated periodical packing of the posterior vaginal *cul de sac*. The patient is placed in the semi-prone—or in the more difficult cases, in the knee-chest—position; a Sims' speculum is passed, and small pledgets of cotton-wool, wrung out in glycerine, are then placed in position with dressing-forceps, each being pressed back as hard as occasion may require with the blade of the speculum, which is held in the left hand. The pressure should be exerted directly backwards into the *cul de sac*, and against the adhesions: if the force is directed too far forwards, the cervix and bladder are merely raised and tilted forward, while the fundus remains fixed and unmoved. Every fourth or fifth pledget is dipped in iodoform, in order to keep the packing sweet. When Douglas' pouch is filled, the vagina is firmly packed with similar tampons. At the outlet of the vagina, the cotton is pressed back towards the rectum so as to avoid pressure on the urethra as it passes beneath the public arch. The last two pieces of cotton should be rather larger than the others, and should be placed to the right and left respectively, so as to wedge the superincumbent mass home, and to sustain its pressure like the stones in an arch. The tightness of the packing must be determined by the conditions of each case. "As a matter of experience, most men pack too loose rather than too tight. Even when there is considerable tenderness a well-fitting, tight packing gives the most relief." Care must,

of course, be taken to stop the packing on the slightest indication of increasing or fresh local peritonitis. Every three or five days the packing should be removed with the patient in the same position; if it was properly applied, the posterior *cul de sac* is found deeper, and the opportunity should be taken for again gauging the position and extent of the more prominent adhesions; another packing is then introduced as before, but the amount of pressure employed may usually be augmented on each occasion "until you pack as hard as you can, unless some contra-indication becomes manifest." When the adhesions are very firm, bits of compressed sponge, wrapped in cotton cloth, are sometimes employed in the place of cotton-wool. The packing must be removed before each menstruation. If the pressure of the packing cause constipation, the bowels must be regulated by a cathartic. The treatment is to be continued until the fundus uteri can be pushed well forward, and held in good position by a pessary. If, however, the adhesions are very resistant, and the patient become somewhat run down, a convenient time to rest is when the fundus has been raised just above the sacral promontory: at this point the uterus can be held for some time with a Thomas' bulb, or with a soft rubber pessary. Dr. Elliot prefers that his patients, if otherwise in fair health, should walk about during the treatment, since in this way the adhesions work loose more quickly. The time required for treatment has varied from one month to three years. The original paper is illustrated with diagrams, and with reports of cases.

Erysipelas Complicating Pregnancy.—Dr. Wardwell relates a case of this in the *American Journal of the Medical Sciences* for April, and refers to twenty-four others which he has found on record. From a review of these, he comes to the following conclusions:— (1) Erysipelas may attack a pregnant woman at any period of pregnancy, and especially during its later stages. (2) It is most often sporadic. (3) The situation of the erysipelas may be on any portion of the body, usually upon the face. (4) The variety may be either cutaneous or phlegmonous, usually the former. (5) Premature labour almost invariably takes place, and usually within forty-eight hours after the initial chill. (6) The tendency of these cases is to recover without uterine inflammation. (7) It is impossible to base a prognosis upon either the position or the variety of the erysipelas. In reference to putting the child to the breast, while in some of these cases this was done without any ill consequences, a case is quoted, as reported by Mr. Scholfield in the *Lancet* of June, 1867, in which there remained no traces of the erysipelas when the child was born. It was put to the breast only after four days, but was attacked with erysipelas, which proved fatal, no recurrence having taken place in the mother.

Sulphate of Copper as an Antiseptic in Obstetrics.—Dr. Charpentier terminates as follows a paper read at the Académie de Médecine (*Union Médicale*, March 6th):— 1. Sulphate of copper in a solution of one per cent. in water, heated to a temperature of from 36° to 38° C., is an antiseptic of the first order which may render signal services in obstetrics. 2. Absolutely inoffensive to the patient, very cheap, and easily managed, it adds to the advantages of a very powerful antiseptic that of being an almost instantaneous disinfectant. 3. Whether employed as a vaginal injection or as an intra-uterine injection, it is absolutely harmless. 4. Possessed of astringent and coagulating properties, it may hereafter be substituted for the perchloride of iron as a hæmostatic, over which it has the advantage of not discolouring the surfaces. 5. The employment of the solution may be continued for the first eight or ten days several times in the 24 hours, without producing any other effect upon the patient than lowering the temperature and diminishing the frequency of the pulse—that is, a rapid amelioration. 6. It is of interest to surgeons to give a trial to this antiseptic, which under some circumstances, and especially in voluminous thrombus of the vulva, has effected a cure without the production of a drop of pus. In a case of fœtid abscess in the urethro-vaginal partition, it at once suppressed the fœtidity and the general symptoms resulting from putrid infection, and that when carbolic acid had failed.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON,

Tuesday, May 20th, 1884.

J. Whitaker Hulke, F.R.S., President, in the Chair.

Reports of the Morbid Growths Committee.

The Secretary read a report by Drs. Payne and Coupland, on Dr. Burney Yeo's specimen of cast from the trachea shown at the last meeting of the Society. They could find no resemblance to the ordinary features of false membrane; but, on the contrary, there was, as suggested by Dr. Yeo, evidence of a vegetable tissue and some pigmentation. They regarded it as a foreign body of a vegetable nature, probably the skin of a grape. The Secretary also read a report by Messrs. Beck and Godlee, on Mr. Lawson's case of congenital tumour of the orbit. They said that they had nothing to add to the description that had already been given by Mr. Milles, and that it appeared to be similar to other congenital tumours in that situation. The Secretary then read a report, also by Messrs. Beck and Godlee, on Mr. Treves' case of supposed actino-mycosis. They had not found anything resembling the fungus of that disease. It was a large celled sarcoma, consisting of round or oval cells mostly, some of the cells were not unlike those seen in cancer, but it nevertheless could not be classed amongst the cancers.

Bromide of Potassium Eruption.

Mr. Tay exhibited for himself and Dr. Stephen Mackenzie some drawings and microscopical preparations from a case of this affection:—A child 11 months old had taken bromide of potassium three times a day for a few days, and then twice a day for ten days. On the ninth day some vesicular spots appeared on the thighs, and the bromide was soon after discontinued. On the twentieth day there were a number of more or less circular elevated spots, with raised margins, and some isolated vesicles containing clear fluid, chiefly on the loins and the backs of the lower extremities. In one month the eruption had subsided, and six weeks after the last dose of medicine had been taken it had disappeared. A portion was removed for microscopical examination, when extensive changes were found. There were pus cells in the corium near the hair follicles and sebaceous glands, and here and there some small isolated cavities. The papillary layer was greatly distended with blood vessels, and there was some extravasation; at a medium depth there was a great deal of cell infiltration, and deeper still there was infiltration around the blood vessels. Some amorphous granular matter was seen in the neighbourhood of the stratum lucidum. The sweat ducts were unaltered. To sum up, there had been a very active hyperæmia of the corium, especially in the papillæ, and therefore exudation had taken place. The infiltration of the corium and the collections of pus explained the elevation of the skin.

The President thought the communication one of great importance, inasmuch as he believed it was the first time that a microscopical examination of the eruption had been made.

Cerebral Aneurysms.

Dr. Charlewood Turner showed two specimens of this kind. The first was the left internal carotid and middle cerebral artery, showing irregularly rounded masses attached to the latter; also irregular enlargements of portions of the chief penetrating branches of the trunk of the artery which supplied the central ganglia, and several minute nodules on some of the finest ramuscules of the larger of the two principal penetrating arteries. The specimen was

obtained from the body of a man, aged 60, who died from an apoplectic seizure. The corpus striatum was extensively lacerated, and there was some blood in the lateral ventricles, the vessels at the base were exceedingly atheromatous, and the kidneys were granular and contracted. The second specimen consisted of the circle of Willis, and of the cerebral arteries connected with it; there were no minute nodules to be seen. It was taken from the body of a man who died in an apoplectic attack; he was a painter, and was known to have been an intemperate man. The right corpus striatum was extensively destroyed, the arteries at the base were atheromatous, and the kidneys were granular. Commenting on these cases, he said he had been led to the opinion that cerebral hæmorrhage was an accident of arteritis affecting the cerebral arterioles to a greater or less extent, and of an intensity at certain points sufficient to so far soften the arterial walls as to cause them to give way under the pressure of the blood, rather than as the result of a defined aneurysmal formation upon the vessels, like that seen in the aorta for instance. He had arrived at these conclusions, partly because miliary aneurysms were not always present, and partly because his examination of these bodies had taught him that there was no evidence of hæmorrhagic extravasation in their immediate neighbourhood. He did not think that there was, in cases of chronic Bright's disease, so much danger of cerebral hæmorrhage from rupture of miliary aneurysms as there was from an aneurysm formed on the aorta or larger arteries. But in all such cases there was, from time to time a liability to the occurrence of arteritis affecting the arterioles of the brain more or less extensively, affecting especially the inner and outer coats, and characterised by nuclear proliferation and swelling, leading to permanent thickening of the walls. This arteritis might be developed with especial intensity at one spot, which might then become softer and liable to yield under pressure, giving rise to aneurysmal bulging, and perhaps to hæmorrhage. Dr. Turner also showed two other specimens: one an aneurysm, the size of a cherry, at the distal end of the basilar artery, taken from the body of a man, aged 52, who died in consequence of its rupture; the other was an aneurysm, about the size of a split pea, on the anterior communicating artery, close to its junction with the anterior cerebral artery; it was taken from the body of a man, aged 33, who died in a state of coma, following on an extravasation of blood into the meninges from the rupture of this aneurysm.

Symmetrical Aneurysms.

Dr. Hadden showed symmetrical aneurysms of the middle cerebral arteries, from a woman, aged 49, who had hemplegia and hemi-anæsthesia. The left ventrical was hypertrophied; no valvular disease. The kidneys contained a few cysts, but were healthy, Blood had been effused at the subarachnoid space all over the brain, due to the rupture of a sacculated aneurysm of the left middle cerebral artery, near the perforating arteries. It had ruptured posteriorly, the blood passing through the roof of the fissure of Sylvius. On right side was an aneurysm from middle cerebral artery at its first bifurcation near the perforating arteries. No evidence of degeneration of the arteries of the circle of Willis. They might have been of embolic origin, but there were no vegetations on the valves, and only slight atheroma of the aorta. Possibly the arterial change was syphilitic, but there was no information on this point.

Pulmonary Aneurysms.

Dr. Percy Kidd showed some specimens, illustrative of the mode of development of aneurysms in pulmonary cavities of acute formation. (1) A case of chronic phthisis in a woman aged 30, who died of hæmoptysis. There was a family history of phthisis. The right lung was universally adherent, and contained scattered small cavities; 22 aneurysms of the pulmonary artery were found in the cavities, varying in size. The walls of the aneurysm were thickened in all instances, and with one solitary exception were not ruptured. Most were at the lower part of the lung. (2) Acute phthisis in a woman aged 26. Two aneurysms, one as large as a pea, both fusiform, were found in an irregular basic cavity with soft caseating walls. The branches of the pulmonary artery were unsupported on all sides, they had not ruptured. (3) Phthisis in a woman aged 26. Trabeculated excavation of the entire left lung. Three unruptured aneurysms were found, their walls were thickened. (4) Chronic phthisis in a man aged 28, death from hæmoptysis. Old cavities in left lung, one at base contained a ruptured fusiform aneurysm, walls rather thin, rupture by linear slit. The aneurysms usually occurred in consequence of the withdrawal of support from the wall of the vessel by the formation of a cavity. They probably commenced with endarteritis, then the other coats became affected, and the middle coat ruptured causing the formation of a thrombus. Adhesion of the lung to the diaphragm probably contributed to the formation of them, by interfering with the free play of the lung. In 230 cases of phthisis, aneurysms were found in 26. In 17 cases rupture had occurred. H moptysis was the cause of death in 21, in one, bronchial ulceration extending into the pulmonary artery, in one it was due to ulceration of an artery, in two the cause could not be found. The walls of the aneurysms were usually thickened, except at the site of rupture. The cavities in which they formed were mostly in the lower two-thirds of the lungs.

Dr. Wilks said that the last statement that fatal hæmorrhage was not due to destruction of lung tissue had been his experience for many years. The hæmorrhage due to rupture of an aneurysm took place in association with the reparative processes that went on; the fatal cases were always those with a long history. Clinical experience and pathological facts were here quite in accord.

Dr. Samuel West thought that one of the most interesting facts brought out by Dr. Kidd was the number of cases in which these aneurysms had occurred without any hæmorrhage.

Multiple Strictures of the Small Intestines.

Dr. Sharkey exhibited this specimen, and said that it was taken from the body of a woman, aged 33, who had died in St. Thomas's Hospital, of facial erysipelas. There was very little family history obtained; she had suffered from indigestion, and came into the hospital suffering from abdominal pain and diarrhœa. There were no physical signs made out by palpation of the abdomen, and the symptoms varied under treatment: there was a little fever in the evenings. On examination the great omentum was found adherent in places to the peritonæum; the liver was fatty, the kidneys were small. The large intestine and the upper part of the small intestine were normal, but in the lower part of the small there were a great many ulcers; they were of two kinds, one small with clean-cut outlines and a non-thickened base; the others much larger, completely encircling the bowel, with a somewhat thickened base, and causing some constriction of the bowel. There was no evidence of tubercle in the peritonæum covering these ulcers, unless a few very minute nodules at one spot could be counted as tubercular. To the naked eye many of the ulcers appeared to have healed. Microscopically there was an infiltration of cells throughout the whole thickness

of the bowel, most marked in the mucous membrane diminishing outwards; these cells showed no tendency to degenerate. There was no tubercle or caseation. The glands and villi were absent. No bacilli had been found in the intestine. The Fallopian tubes showed early tubercular disease. The points which seemed to him noteworthy in these specimens were the number of strictures, their being so near together, the regular and sharply defined character of the ulcers, and the fact that the floor of the ulcers was nearly uniform with the rest of the intestine. As to their nature, the following points were against the idea of tubercle, viz., the absence of tubercle in the peritonæum, the regular outline of the ulcers, and the absence of the microscopical characters of tubercle. The ulcers were not due to typhoid. He thought that the disease of the Fallopian tubes might be clearly regarded as secondary.

Dr. PAYNE asked if there had been any fever.

Dr. MAHOMED asked as to the condition of the mesenteric glands; he also observed that he could see what he considered to be tubercles on the peritonæum.

Mr. TREVES referred to a case where two feet of intestine had been removed during life, and were found in a state of ulceration; a specimen somewhat like the present one was to be seen in St. Thomas's Hospital Museum.

Dr. KIDD asked whether any bacilli had been found in the Fallopian tubes.

Dr. SHARKEY, in reply, said that there had been slight fever. The mesenteric glands were not diseased. As to the peritonæum, if those nodules were tubercles, they were only over one stricture, and it would be most unusual for the peritonæum to be so healthy in tubercular disease. The Fallopian tubes had not been examined for bacilli.

Tumour of Petrous Portion of Temporal Bone.

Mr. CHAVASSE exhibited this specimen. The patient was a woman who had received a blow on the left side of her head, in consequence of which a lump formed and grew. It caused aching pain, deafness, photophobia, pain in the left eye, and paralysis of the facial nerve on that side. The swelling was situated in the parotid region, and extended down the neck, but the movements of the jaw were free. The growth was found to take origin from the petrous portion of the temporal bone, and was removed. The patient did well at first, but died of double pneumonia on the sixteenth day. The tumour was firm, and about half the size of a hazel nut; it consisted of dense fibrous tissue, in which small homogeneous masses with canals were to be seen, and also variously sized deeply staining cells. The parotid was very dense and full of blood vessels. The gland cells were atrophied.

Bilobate Heart in a New-born Child.

Mr. SHATTOCK exhibited this specimen. The superior and inferior venæ cavæ were normally developed, pulmonary veins were confluent on the back of the auricle without having any communication with it. He surmised that the blood from the lungs had been returned through the bronchial or posterior mediastinal veins, communications between which and the pulmonary veins have been shown to exist by Zuckerkandl. The condition tallied with the established embryological fact that the pulmonary venous system is found independently in the lungs, though the manner in which this came to be connected with the heart was not yet determined. Whether the present specimen represented a stage in this process remained to be shown.

The Pathology of Congenital Club-foot.

Mr. R. W. PARKER and Mr. SAMUEL SHATTOCK read a paper on this subject in continuation of a former communication, in which they advocated a mechanical mode of causation for this deformity. Their opinions rested on a careful dissection of five cases (three of varus and two of calcaneus), and on a study of specimens in various London museums. The contention was that there was nothing special in club-foot, nothing which might not be found in other joints. In one of the cases there was histological integrity of the nerve-centres, of the nerve-trunks, and of the muscles of the affected limb, but there was also some extra obliquity in the neck of the astragalus. In another case, however, there was no such malformation in the astragalus. Hence, they argued, the insufficiency of the usually accepted nerve-theory of causation, and of the theory that the deformity depended on the conformation of the astragalus. It was further shown that the conformation of the astragalus which was met with in most cases of talipes was the normal condition in the Simiidæ, although these animals were not talipedic. Thus it appeared that some other cause must be invoked, and they sought it in the environments of the fœtus during intra-uterine life. As additional proofs of pressure (besides the talipes), they related instances of torsion of the bones of the leg and of the astragalus, and also a case in which depressed patches of atrophied skin, with bursæ beneath, were found on the external malleolus and on the head of the astragalus, comparable with what was found in persons who had walked on the unreduced talipedic foot. The varieties of varus and calcaneus were thought to depend on the date of onset, and in both cases were exaggerations of positions normal at some time or other of fœtal life.

Dr. MAHOMED mentioned the case of a child under his care with what he called tetany neonatorum, in which permanent deformities were forming.

Dr. B. O'CONNOR observed that the limbs of babies, though in a flexed condition during the time the child was awake, were yet relaxed in sleep.

Mr. PARKER, in reply, said that they had not wished to make out that all forms were produced in identically the same way. The physiological calcaneus only lasted a few days after birth.

Congenital Xanthelasma.

Dr. BARLOW showed some drawings of a boy, 7 years old, who showed typical shammy leather patches on the eyelids and shoulders, and a cream-coloured staining on the ears, his vaccination scars were also tinted. Xanthelasma was mainly a disease of adult life or old age, but a few cases had been seen in young people, and even congenital cases had been recorded, notably one by Dr. Stephen Mackenzie, where the disease was both congenital and hereditary. Hitherto the congenital cases had differed from the ordinary ones in that the eyelids had escaped, but in the case he showed that evening the eyelids were involved, and, what had also not been before observed in the congenital form, there was some evidence of hepatic affection, inasmuch as the boy had suffered from renal calculus. The boy's father had relapsing psoriasis, and the grandfather had been subject to gout.

Card Specimens.

Dr. SHARKEY. (1) A case of cystic squamous epithelioma. (2) Stricture of stomach and œsophagus with atrophy of stomach.

Mr. CHAVASSE. Tumour of skull.

Mr. SHATTOCK. Unusal condition of hydrocele fluid.

Dr. SILCOCK. Cancer of prostate with secondary ossific deposit in cranium and femur.

Dr. PAYNE for Dr. HANDFIELD JONES. Preparations of pale and red clots in cerebral arteries.

Mr. LOCKWOOD for Surgeon TREVAN, R.N. Chyluria with filariæ in the blood and urine (living).

Dr. HOBSON. Malignant disease of cæcum.

Mr. Morgan. (1) Extensive calcareous deposit in pleura. (2) Perforation of occipito-atloid articulation joint and cerebellum.

Dr. Hebb. (1) A sponge-like liver. (2) The muscular nerves and spinal cord in diphtheritic paralysis. (3) Tubercle in the wall of the heart.

Mr. Lane. (1) Tumour of the bladder. (2) Partial mollities.

Dr. Hale White. Left inferior vena cava.

Mr. J. Poland. Suppurative arthritis of infants.

Mr. R. W. Parker. Lymphomatous glands removed from the axilla (recent).

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, May 8th, 1884.

Jonathan Hutchinson, Esq., F.R.S., President, in the Chair.

After announcing the Agenda for that evening the President called the attention of the members to the very handsome bookcase which had been provided by Sir Wm. Bowman, and hoped that it would be borne in mind by the members that it was their duty in return for such generosity to fill it. He also announced that the Council had decided to hold an extra meeting, and for the benefit of those coming from the country it would take place on the day before the Annual General Meeting, *i.e.*, Thursday, July 3rd. By permission of the Medical Society it was fixed for four o'clock in the afternoon, and it was arranged that only papers should be read and that there should be no exhibition of patients.

Mr. Nettleship showed an ophthalmoscopic drawing of a case of central guttate choroiditis (Tay's disease). The disease was considerable and symmetrical, but the sight was good notwithstanding. The patient was prematurely presbyopic. He also showed a drawing in which there were a number of small dark pigmented parallel lines in the choroid, as if this had been puckered into folds. There might have been some œdema of the choroid, which subsiding had left the choroid flaccid.

Dr. Stephen Mackenzie had recently seen two cases after papillitis, in which a white streak appeared in each fundus, going towards the yellow spot.

Mr. Adams Frost showed some eyes mounted in glycerine jelly, after Mr. Priestley Smith's method. (1) Ossification of the choroid and total detachment of the retina. Vision destroyed by a kick from a horse 30 years before enucleation. There had been several attacks of sympathetic inflammation. (2) Detachment of retina, with organised blood clot. (3) Detachment of retina and choroid by blood. (4) Detachment of retina, globe filled with laminated blood clot.

Mr. Jennings Milles exhibited microscopical sections from a case of ciliary staphyloma and irido-cyclitis, the case having on a previous occasion been reported to the Society by Mr. Adams Frost. He also exhibited a case of nævus of the right temporal and orbital region, with nævus of the choroid in the right eye and detachment of the retina on the same side. The boy was fifteen years of age, and had had a subcutaneous nævus of the right side of his face since birth. There had been no discolouration of the skin, and it varied in size. At the age of six years he was noticed to be blind with the right eye, but it was impossible to find out how long he had been so. The retina was completely detached, and close against the lens, there was bare perception of light. The left eye was myopic, and as there was some irritation, the right was excised. There was found a nævus of the choroid at the outer part, it was a cavernous angioma. He did not know of any similar recorded case.

Dr. Stephen Mackenzie referred to a paper by Dr. Allen Sturge in the "Clinical Society's Transactions," on a somewhat similar case, in which the occurrence of epileptiform convulsions had led to the supposition that there might be similar state of the meninges to that which was present in the skin. Dr. Horrocks had recorded a case of nævus of the retina during the last session.

Dr. Brailey said that there was a detachment of the retina, and a new fibrous layer in the choroid with at one spot the formation of a small bony structure in the choroid.

Mr. Nettleship said that in Dr. Sturge's case the condition was somewhat different, the eye was myopic, the choroid was darker than in the other eye, and perhaps thicker.

The President inquired if there had been, in either of these cases, any nævus of the cellular tissue of the orbit, to which both Mr. Milles and Mr. Nettleship replied in the negative.

Mr. Lang showed a case of new vessels on a fibrous growth in the vitreous in a chronic glaucomatous eye.

Mr. Morton showed a drawing of the same specimen.

Mr. Milles showed a microscopical specimen of a similar condition.

Acute Spasm of Accommodation.

Dr. C. E. Fitzgerald reported two cases of sudden accession of apparent myopia, which relaxed on instillation of atropine, but in the first case returned on the discontinuance of the drug. Spasm of the accommodation, to a greater or less extent, was, he considered, always present in young persons who were hypermetropic or myopic; but this acute spasm was, in his opinion, very rare. Donders stated that he had never seen a clear case of it; but he quoted three cases, two of them recorded by von Gräfe, and one by Leibreich. In 1879, a case had been published in the *Italian Archives of Ophthalmology*, by Professor Ravi. These were the only ones Dr. Fitzgerald was acquainted with, and the only work he knew which dealt fully with the matter was Professor Nagel's monograph on *Anomalies of Refraction and Accommodation*, published in 1866.

Mr. Adams Frost asked whether there was anything unusual in the occupation of the patient necessitating the use of his eyes much for near vision, and also what the age of the patient was.

Dr. Fitzgerald replied that the patient was a clerk, aged 23.

Nervous Disease with Ocular Symptoms, and Alleged Uniocular Diplopia.

Dr. James Anderson read an account for Mr. Marcus Gunn and himself, of a case of nerve-disease with ocular symptoms, including alleged uniocular diplopia. The patient, a painter, aged 34, came to the Moorfields Eye Hospital on October 20th, 1883, complaining of seeing several images of an object, especially when he looked to his left. He had convergent strabismus from partial paralysis of the left external rectus, with the usual homonymous diplopia arising therefrom; but, in addition, he asserted that with the right eye shut he still saw things double to the left of him. Except the paralysis of the left external rectus there was no abnormality in the muscular or refractive apparatus of either eye. The two images seen with the left eye were quite distinct, the right clear, the left dim, as were the images in the binocular diplopia, but nearer together than these. By the use of a prism, it was sought to separate the images given by the two eyes, and so to ascertain if he saw three images with the two eyes, but he never did so. The patient, a fairly intelligent man, answered with the manner of perfect *bona-fides*, and, so far as could be discovered, had no interest whatever in deceiving. In addition to the above ocular symptoms there was also atrophy of the left quadriceps extensor cruris, with loss of the left knee-jerk, the right being prompt and vigorous, also slight atrophy of the right scapular muscles and right thenar eminence, symptoms present in 1882, when he was under treatment in the London Hospital. When he applied at Moorfields, there was also very great loss of sensa-

tion, both common and special, in all areas supplied by the left trigeminus, as well as atrophy of the muscles supplied by its motor branch. There was no atrophy of the interosseous muscles of either hand, and none of the usual symptoms of lead-poisoning. The multiformity of the lesions, the affection of the trigeminus, and an obscure history of venereal disease, justified diagnosis of syphilitic nervous disease, and under iodide of potassium the abducens paralysis gradually disappeared. With this also disappeared the diplopia, both binocular and uniocular. The patient had recently, since giving up treatment, had several "fits" of doubtful character, in which he lost consciousness. After referring to the three cases already recorded in the Society's "Transactions" for 1882 (pp. 201, *et seq.*), and the subjective and therefore difficult nature of the symptom, Dr. Anderson, considering that there were too few cases for generalisation, simply emphasised, first, the occurrence of abducens paralysis with dilated pupil as a concomitant of uniocular diplopia, the two disappearing together in two of the four cases; and second, the presence of coarse cerebral disease in the two cases where there had been a *post-mortem* examination with the occurrence in the other two of symptoms consistent with, although not decisive of, coarse cerebral disease.

Dr. BRAILEY mentioned the case of a woman whom he had lately seen, who had some ataxic symptoms and uniocular diplopia: the patient had had syphilis. He had not been inclined to believe the patient's statements, but after the paper which had just been read he would investigate the case more carefully.

Mr. NETTLESHIP had recently seen another case—that of a young man with brain disease. He had paresis of the right external rectus, with ordinary diplopia, and diplopia of the right eye alone, chiefly to the extreme right of the field, a point which was also noted in Dr. Anderson's patient. An increase in size of the pupil on the paralysed side in sixth-nerve paralysis was common.

Dr. FITZGERALD had seen two cases of uniocular diplopia in which there was no paralysis of ocular muscles. One was a young lady with hypermetropia and asthenopia, who had marked uniocular diplopia with the left eye after reading; the other was a boy who was also hypermetropic. He mentioned also the case told him by a friend, of a gentleman who had always had uniocular diplopia, without anything to account for it being discoverable.

Dr. BRAILEY said that Mr. Snell was going to bring forward a case at a future meeting.

Mr. JULER had seen a woman, aged 40, who had paralysis of the left external rectus and diplopia with that eye alone.

Tortuosity of Retinal Veins in Association with Hypermetropia.

Dr. STEPHEN MACKENZIE showed a drawing, and read the notes of a case of great tortuosity of the retinal veins in the left eye of a patient of Mr. Streatfeild's, who was affected with hypermetropic astigmatism. The condition was practically confined to the one eye, which was the most hypermetropic. He stated that in the case of the girl he had exhibited last December, there was hypermetropic astigmatism, which was the greatest on the side where the retinal vessels were most tortuous. He had also a case now under care, a girl suffering from anæmia, whose retinal veins were tortuous, and there was slight hypermetropia. He alluded to other cases recorded, and showed that in most of the cases, great tortuosity had been associated with hypermetropia; and in some the tortuosity had been greatest in the most hypermetropic eye, yet in others the tortuosity had been equal in the two eyes when the hypermetropia had predominated in one; and similar tortuosity had been present in one patient who was emmetropic. He also alluded to the association of headache with the tortuous retinal vessels in some cases. He thought further facts bearing on the question were needed.

The PRESIDENT thought that the records of other similar cases would be peculiarly interesting.

Dr. BRAILEY mentioned a case of extreme tortuosity of vessels he had seen in a hypermetropic person, but the internal recti had been divided. In reply to Dr. Mackenzie, he explained that he did not attribute the tortuosity to the operation of dividing the recti, but there might have been some orbital cellulitis.

Extraction of Cataract.

Mr. HIGGENS read a paper summarising the results of his practice, accompanied by a table, in which were recorded the sex and age of the patient; the eye operated on; the form of cataract; the operation performed; the result; and remarks, when necessary. The number of operations was 200, and they were performed on 175 patients; 93 males and 82 females. 181 of the cataracts were nuclear; 19 were cortical. The results of the 200 operations were: 175 (87·5 per cent.) successful; 9 (4·5 per cent.) partially successful; and 16 (8 per cent.) failures. Extraction by a small flap-section, the incision being situated in the sclero-corneal junction, associated with iridectomy, was advocated. Anæsthetics were almost always employed, 12 operations only having been performed without. Reference was made to a paper printed in the seventy-second volume of the "Royal Medical and Chirurgical Society's Transactions," in which the details of 150 operations were given.

Hæmorrhage in Yellow Spot Region.

Mr. A. STANFORD MORTON read notes of a case of hæmorrhage in the region of the right macula, occurring in a patient aged 35, under Mr. Tay's care. The hæmorrhage was semicircular, but there were disturbances over a perfectly circular area extending from the optic disc to beyond the macula lutea. The patient's vision when first tested was only J. 20, but on March 31st was J. 1 and $\frac{20}{10}$. There was no history of blow or any illness, except that the patient was liable to attacks of rheumatic gout (probably true gout). The urine and heart were normal. The patient stated that, for the last two years, he had been subject to bleeding from the right nostril once or twice a week, but that this had ceased from the time his sight became defective until two days previous to his vision being found normal, a period of about three months.

The PRESIDENT noticed that the patient was said to have had rheumatic gout; it seemed to him that it was a typical case of true gout. [Mr. Morton here pointed out that the diagnosis of rheumatic gout was the patient's own.] It was an interesting case of hæmorrhage in an unusual place. He had seen several cases like it, but in none was the hæmorrhage of this shape.

Mr. NETTLESHIP thought that the half-moon shape was perhaps due to some anatomical peculiarity of the retina.

Mr. ADAMS FROST suggested that the hæmorrhage had been originally circular.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 1ST, 1884.

THOMAS BUZZARD, M.D., in the Chair.

CLINICAL EVENING.

BEFORE the business for the evening was proceeded with, a vote of condolence with the President, Mr. George P. Field, and with Mrs. Field, senior, was proposed by Mr. Malcolm Morris, and passed unanimously. Mr. O. A. Field, whose decease had taken place since the previous meeting, was at that time the Society's oldest member.

Case of Epileptiform Convulsions, with unusually slow pulse.

Mr. St. George Mivart read the notes of this case:—The patient was a retired policeman, aged 61, without any history of syphilis or acute rheumatism. There was no albumen or sugar in the urine. The first convulsive seizure took place six years ago; since then the patient had had five other fits, which all occurred in the stooping posture. The last fit occurred eight weeks ago; on the following day the patient was found to have a pulse of only 20 per minute; the pulse was firm and full between the beats. There was a slight systolic mitral murmur, together with an aortic systolic murmur. No hypertrophy apparently existed, since the impulse was diminished. Mr. Mivart considered the case to be one of fatty heart, with atheromatous deposit about the valves. He thought also there might be some slight aortic stenosis, giving rise to anæmia of the brain. He referred to the connection between attacks of syncope and those of minor epilepsy, and quoted the opinion of Dr. Russell-Reynolds to that effect. In this case he considered the seizures to be essentially of a syncopal character, modified by the epileptic tendency of the patient. Though much improved in other ways, the patient at the end of eleven weeks still presented a pulse as low as 24 per minute.

Dr. Hare related at some length a closely analogous case of unusually slow pulse, associated with *petit-mal*. The pulse had gradually dropped to the unparalleled rate of 13½ per minute, at which it was maintained for a considerable period, ultimately rising to 30 and 40. The patient, a nobleman, aged 57, had, up to the time of his illness, displayed the greatest activity, both mental and physical. Death occurred in a fit. No abnormality of the heart-sounds had been observed during life, and at the *post-mortem* examination the valves were found competent, and the heart but slightly enlarged and not markedly fatty. With the exception of slight enlargement of the kidneys, the other organs were practically normal.

Hypertrophy of bone due to Congenital Syphilis.

Mr. St. G. Mivart exhibited a lad, aged 18, in whom the left tibia was greatly thickened and curved anteriorly, as a result of congenital syphilis. Mr. Pepper gave the full details of a similar case (aged 22), where both tibiæ were affected even to a greater extent. The diagnosis of congenital syphilis was based upon the recent occurrence in the patient of interstitial keratitis, and upon the condition of the mother who was at the same time under treatment for periosteal nodes. Mr. Juler raised the question of treatment which was also discussed by Mr. Pepper and Dr. Buzzard.

Struma, Syphilis and Cancer in the same Patient.

This case was narrated by Mr. Pepper. The patient, a woman, aged 36, had suffered from scrofulous keratitis 30 years ago, presented scars on both her legs, and had suffered amputation of the breast in September last. A short time ago she had an epileptiform seizure and, within a few days, paralysis of the right facial, auditory and sixth nerves. The author was of opinion that the intracranial affection was probably syphilitic, although mercury had rapidly produced salivation. Dr. Buzzard, in commenting on the case, suggested that the cerebral symptoms might very probably have been due to the deposition of cancer within the skull.

Pathological specimens were exhibited by Dr. A. G. Silcock:—

(1) *Dilated Bronchi in a Child.*—The dilatation was uniform, tubular, and occurred at the right base, which was adherent to the pleura, and much condensed. Dr. Silcock had made the interesting observation that the right bronchus was pressed upon by some enlarged lymphatic glands, and he attributed to this cause the occurrence of the dilatation. Dr. Ewart agreed with the view which had been given of the pathology of this case. He was familiar with a form of bronchiectasis which was due to pressure upon some part of the bronchial tree, and he alluded to specimens from the *post-mortem* room of the Brompton Hospital, in which he had demonstrated the condition in question. He also called attention to the influence of the pleural adhesions, and of the chronic interstitial pneumonia, due to retained secretion, which favoured the bronchial dilatation.

Dr. Hare enquired whether there was in this case any evidence of chronic pneumonia, consolidation being often due, as in cases of whooping-cough, to pulmonary collapse.

(2) *Cancer of Uterus, with unusual Diffusion of Secondary Growths.*—The clinical history of the patient, from whom the specimen was derived, excited considerable interest and discussion. When admitted, her symptoms and her aspect bore such a resemblance to those of diabetic patients, that diabetes was at first sight diagnosed by two independent observers. No sugar, however, could be detected in the urine.

(3) *Sub-Peritonæal Sarcoma.*—The chief interest of this specimen lay in the widespread growth, and in the great rapidity of the extension of the disease. The case was at one stage supposed to be one of ovarian disease, and ovariotomy was for a time contemplated.

INTERNATIONAL HEALTH EXHIBITION.

Article III.

Vegetarianism.

There are two kinds of vegetarianism—one an extreme form, the members of which eat no animal food whatever; and a less extreme sect who do not object to eggs, milk, or fish.

The Vegetarian Society, now exhibiting at the International Health Exhibition, belongs to the latter more moderate division. From a communication forwarded to us by Mr. W. Harrison, we gather that the Society was founded at Ramsgate in 1847, and that since that date it has considerably increased in numbers. The activity of its leading members rivals that of the followers of the banners of Booth; they have held May Meetings in London, Leicester, Birmingham, Cambridge, Manchester, and elsewhere; they have distributed gratis any number of pamphlets and essays; they support at least one journal, and under their encouragement vegetarian dining rooms have been opened in many of the large English and Scotch cities.

At the Exhibition they have a pleasant airy room, ornamented with paintings lent by friends or members of the Society: four æolus spray ventilators keep the air beautifully cool and fresh; the tablecloths and general feeding implements are clean and neat, and the attendance is ample and satisfactory. Since the opening of the Exhibition they have given a sixpenny dinner to some four or five hundred people daily, and we understand that hitherto expenses have been met. It must, however, be quite understood that the undertaking has no commercial basis, for any surplus is to be devoted to charitable purposes.

Practical vegetarianism has so seldom been studied in any impartial or scientific manner, that we have taken advantage of the exhibit to enquire into the matter somewhat closely—have partaken of a sixpenny dinner, and have had during two days every substance forming part of the dinner weighed; thus on Wednesday and Thursday the sixpenny bill of fare was:—

(1) Lentil or rice soup.
(2) Potato pie or haricot maitre d'hotel.
(3) Macaroni, or sago pudding, or stewed peaches with rice or porridge.

On Thursday there were 440 partakers of the sixpenny dinner, and the cook kept a careful account of the substances used in this bill of fare, which we have reduced into "*food equivalents*" as follows:—

	Ozs.
Albumenoids	280·2
Fat	196·5
Carbo-hydrates	1397·1
Mineral matters..	39·6

so that, presuming that the above amounts were equally

divided among the 440 consumers, each one would receive the following :—

	Ozs.
Albumenoids	·63
Fat	·44
Carbo-hydrates	3·17
Mineral matters..	·09
	4·33

The researches of a great number of physiologists and chemists have laid down the true principles of diet in relation to physical work, and the standard diet for ordinary labour is pretty much as follows :—

	Ozs.
Albumenoids	4·2
Fat	1·6
Carbo-hydrates	13·7
Mineral matters	1·0

It follows then, that it would require about six of the sixpenny dinners to support a man during a day's hard labour. Possibly the quiet sedentary work of a clerk could be supported on three such meals. Speaking personally, the writer felt after eating the above, that he had a very pleasant, well-cooked digestible meal, but only of the character of a light lunch. The cost of the materials used for the 440 people at ordinary prices, works out at a little over 2*d*. a-head; the Society, of course, buy at wholesale prices, so that probably the prime cost will be a little under 2*d*. We believe that so far as price goes, the sixpenny meal would compare favourably with ordinary restaurant meals, the usual cost to the customer being much more than three times the value of the raw material. We must, however, in justice to the Society, add that the bill of fare criticised is one of their lighter kinds; and that on certain days of the week, a more substantial *menu* is substituted.

The National School of Cookery.

The National School of Cookery is under the superintendence of Mrs. Charles Clarke; it has been in existence since 1874, and has done much useful work, its objects being—(1) To train and qualify persons to become Teachers of Cookery in Training Schools, School Board Schools, Poor Schools, and similar institutions. (2) To teach Cooking to any person desirous to learn. (3) To send Teachers of Cooking, with the necessary armamenta, to any part of London or the Provinces.

The number of people who have been taught Cooking during the past ten years at the School amounts to 22,612, which is a large enough figure to justify its establishment. The National School of Cookery have dining-rooms at the Exhibition, in which may be bought shilling dinners, and on certain days sixpenny dinners. As far as possible the *menu* is so arranged as to follow a little work, written by Mrs. Clarke and published by the Executive Council, entitled, "Receipts for Cheap Dinners;" the consumer, should he care to purchase the little book, has therefore the satisfaction of knowing what everything is composed of, and how it is made.

So far as our personal experiment goes, we regret to say that the cooking of the viands did not seem to us quite perfect, the cleanliness of the table and appliances not absolute, and the difficulty in getting a suitable supply of malt liquor was exasperating. But we hope that these little defects, which are certainly marring the popularity of the School, are due simply to the sudden stress of a new departure, and will as time goes on be remedied.

The Dairies.

The opinion is gaining ground that "milk," almost as much a necessity of civilised life as "water," should only be supplied to urban populations by large proprietors or companies, for they alone have the requisite capital to construct their dairies and cowsheds on proper sanitary principles, and they alone have the capital to house their workmen, and to regulate the farms from which their supply is derived. No small amount of the milk-supply of the poor in London is retailed from little general shops, the rest of the house being let out in tenements, and possessing neither a safe, clean, nor cool storage place.

We see in the exhibits of three large dairies the most modern mechanical appliances for the cooling of milk, for the separation of cream, and for the making of butter.

The London and Provincial Dairy Company have a very complete exhibit of all that is necessary for the successful working of a large milk business.

The Express Company show a model of their farm at Crouch End, Finchley, which they have had constructed on the latest sanitary principles. They show also Guernsey cows, a German cream separator, the material being phosphor bronze, and besides the ordinary milk produce, they show goats' milk from a goat farm of theirs at Dorking.

Messrs. Welford have erected a bright attractive model dairy, and, taking all things into consideration, their exhibit is perhaps the best. They show a model of the excellent drainage carried out at their establishment in Elgin Road, which, it will be remembered, was erected at considerable outlay some little time ago; some fine Alderney cows, Laval's separator at work, dividing the cream from the milk, churns, and various other appliances. Messrs. Welford have issued a printed circular lately to all farmers supplying them with milk, the effect of which will be that, instead of it being to the farmer's interest to conceal any infectious disease, whether in man or animal, on his farm, it will rather be to his interest to communicate the fact to Messrs. Welford. Such a spirited measure as this cannot fail to give the Warwick Dairy proprietors a fair amount of protection, and also to increase the confidence of their customers.

Messrs. Bradford & Co. show a small compact dairy, in which there are special appliances for keeping the air cool and free from dust. At the time of our visit, an exceptionally warm day, we found the temperature below 58°.

In concluding this article we must not omit the exhibit of the Pure Standard Food Company, which, though less pretentious than the rest, is not without interest.

OBITUARY.

ADOLPHE WURTZ.

From among the numerous tributes to the memory of this distinguished chemist which have appeared in the French Medical Press, we select the following, which M. Gilles de la Tourette has contributed to the *Progrès Médical*:—

"A few days only have elapsed since, at the grave of J. B. Dumas, one of his pupils, himself long since 'past master' in his science, recalled in eloquent terms the scientific life of the man who had been his teacher and his friend. The savants who were present at the obsequies of the great chemist, little thought that one of their number would so soon be called upon to pronounce a funeral address upon him who then spoke in their names. If there was ever a fruitful career, it was surely that of Adolphe Wurtz, who, endowed with an unequalled activity and ardour, never put off anything until the morrow, and was surprised by death in the very midst of his labours. Born at Strasburg, in 1817, he received the diploma of doctor from the Faculty of Medicine of that city, in 1843, and from the very outset of his studies showed an irresistible vocation for chemistry, and especially for that chemistry of the organic compounds, which he was so to enrich by his discoveries. He became the friend and fervent disciple of Charles Gerhardt, an Alsatian like himself, who founded the atomic theory of chemistry, but, prematurely snatched from science in his 35th year, left its development to be carried out by his pupil, in whose hands it acquired so considerable a reputation. But the eager activity of the young chemist demanded a wider field than Strasburg could supply, and repairing to Paris, he quickly obtained in the Faculty of the French capital the same post which he had held in that of Strasburg. Three years later, in 1847, he was appointed an *agrégé* in the Faculty of Medicine. The judges made at this *concours* a happy selection for the accessory sciences, by nominating on the same occasion Adolphe Wurtz, Jules Regnauld, and Charles Robin. Henceforth, the new *agrégé*, who shortly attained the rank of professor, on the resignation of J. B. Dumas (1852), led organic chemistry

into paths which none as yet had ventured to penetrate, labouring at it incessantly, and endowing it with new possibilities. In 1849, he announced to the world the discovery of the ammoniacal compounds. The constitution of the organic alkaloids, which we daily employ in medicine, and which plants are incessantly producing, was no longer a secret, now that his scientific researches had shown us how to reproduce them in the laboratory. His labours were pursued without pause. In 1856 he discovered the glycols, in 1859 the oxide of ethylene, and in 1876 he performed the synthesis of neurine. . . . . All these discoveries Wurtz expounded, in a most philosophical manner, in works which quickly acquired a classic standing, such as "Leçons de Philosophie Chimique," "Traité de Chemie Médicale," "Traité de Chemie Moderne," "Histoire des Doctrines Chimiques," "Dictionnaire de Chemie" (in collaboration with the most distinguished chemists of our time), and many others. Biological chemistry and organic chemistry are but two branches of the same tree, and thus Wurtz, in 1859, was the first to discover that chyle and lymph are much richer in urea than the blood; and, quite recently, he exhibited the considerable power of soluble ferments, by proving that these ferments enter into unstable combination with fermentable matter (fibrin), a combination which water destroys in regenerating the ferment. In this way, one part of pepsin can digest 2,000 parts of fibrin.

"Wurtz having become the unquestioned leader of the chemical school in France, the laboratory which he had established at the Faculty of Medicine, was the centre of attraction for all those who felt drawn to this branch of science, and pupils assembled around the master from all parts of Europe. Wurtz had nothing of the jealous, morose *savant* about him. His pupils felt that in him they had a benevolent friend who, through the discussions which he started, illuminated them with the light of his brilliant genius—one who knew how to scatter all hesitations, to calm by a kind word the annoyances of tedious research, and to infuse courage into the heart of the dullest worker. Honours were not wanting to him. Already a member of the Academy of Medicine, he was elected into the Institute in 1867; while from the Royal Society of London he received the Faraday medal in 1878 and the highly prized Copley medal in 1881. But nothing can give more satisfaction to the *savant* than the opportunity of disseminating the ideas of which he has constituted himself the champion; and in 1875 Wurtz had a chair founded for him in the Faculté des Sciences. He was enabled henceforth, amidst his new surroundings, to make many proselytes, and his ardent language and true scientific eloquence decided many a career. Such was the esteem of his colleagues at the Academy of Medecine that, when, in 1865, Professor Tardieu resigned the office of dean, they decided to confer it upon Professor Wurtz. It was at a very turbulent period, when police agents contrived to bring about disturbances among the students; the pretext was seized upon to make arrests on a large scale. Not only did the new dean never allow the police to pass beyond the gates of the Ecole, but he was often instrumental in obtaining the liberation of students unjustly arrested. He resigned in 1875, having established laboratories at the Hotel Diéu, la Pitié, and la Charité, and obtained the reconstruction of the Ecole Pratique. In 1881 he was chosen senator for life by the Left Centre, and in 1882 was promoted to the rank of Grand Officer of the Legion of Honour. All these honours did not change the man. His affability seemed only to increase, and his life passed away, calm, tranquil, and patriarchal, in the midst of his pupils by whom he was so much cherished, and his numerous family. In his laboratory he reserved the place of honour for Professor Caillot, one of his old Strasburg teachers, who still survives him. Here they would compare their recollections of the old Faculty, and dwell upon their lost country; for Wurtz was an ardent patriot. Not content, in 1870, with transforming his house into an ambulance, he repaired himself to the fields of combat to succour the wounded. After the battle of Champigny the devotion which he had exhibited would have obtained for him a promotion in the Légion d'Honneur; but he declined this on the score that he had simply done his duty."

GENERAL CORRESPONDENCE.

ANTISEPTICS IN ABDOMINAL SURGERY.

[To the Editor of the Medical Times.]

SIR,—In a review published last Saturday, at page 672 of your present volume, you make some remarks which are strongly confirmed by the following extract from a lecture by Dr. John Homans, of Boston, published in the *Boston Medical and Surgical Journal*, April 10th, 1884:—

"In publishing the following lecture to students it may be proper for me to say that I have opened the abdomen for various purposes 203 times. I have done the operation of ovariotomy 159 times. My first five cases of ovariotomy were performed without any antiseptic precautions whatever and all died. In the next 100 cases I used antiseptic agencies, including spray. Of these, thirteen died and 87 recovered. Since then I have operated for ovariotomy 54 times with four deaths. My last thirty cases have all recovered. I ought, in this connection, to say that I have never declined to operate but once, the patient in that case having been already tapped to the amount of 2,270 pounds in five years. I have operated upon all the other cases that have come to me, and although my late continued success is doubtless owing to good fortune, I feel that I can now perhaps do the operation better than I could at first."

The precise antiseptic "precautions" or "agencies" used by Dr. Homans may be gathered from what he says as to the spray, sponges, and dressings:—

Spray.—"I always use the spray and need a steam atomizer. I do not believe that the spray is absolutely essential, but I have had very good success with it, and have never known that it has done any harm."

This is especially interesting when considered together with Sir Joseph Lister's own confession as to his doubts of the importance of the spray, with Billroth's belief in its inutility, and with the doubts expressed long ago by Sir Spencer Wells, whose own practice and example, however, are still in accordance with the statement of Dr. Homans. At page 220 of his last work, published in May, 1882—Ovarian and Uterine Tumours—Sir Spencer Wells says:—

"I feel still doubtful about the spray—'striving to better, oft we mar what's well.' In prolonged operations, I have had reason to fear that its chilling effect upon the patients has been injurious. But I have never once seen any other ill-effect which I could attribute to it, nor anything like carbolic poisoning. The misty cloud occasionally obscures the field of operation, but not to any serious extent; and it is always easy to protect the peritoneal cavity against the continued action of the spray by a large warm sponge. After a few trials I gave up thymol spray as useless, and for more than a year past have used a spray of absolute phenol, of a strength of one in forty. And this I continue to use, believing it to be safer than the irrigation or sponging proposed as substitutes, although I fully admit that we require a far greater number of trustworthy experiments, or of comparative observations made under similar conditions with and without spray than have yet been made known, before we can receive any satisfactory answer to the questions whether carbolized vapour or air can destroy, or render innocuous, infective or putrefactive substances or germs floating in the air; or what is the share which the spray, among other additional antiseptic precautions, has had in obtaining the better results which have undoubtedly accompanied their combined employment."

The other antiseptic precautions used by Dr. Homans are thus described in his lecture:—

Sponges.—"About 40 clean soft sponges of various sizes, which have been soaking for several weeks in a five per cent. solution of carbolic acid. I have three barrels filled with solutions of carbolic acid, and these barrels are kept full of sponges. Each barrel is used alternately. Some of my sponges have been soaking for ten years. I formerly

used sponges but once, but now I use them over and over after they have been cleaned.

On this detail Sir Spencer Wells says, at page 219 of his work from which I have just quoted:—

"After an operation I continue my old plan of keeping the cleansed sponges in a weak solution of sulphurous acid, and during the operation, in addition to washing in pure water, every sponge before use is wetted with a two to three per cent. solution of carbolic acid, or absolute phenol. Soft, clean linen cloths, wetted with a warm solution of phenol, may be used to lessen the number of sponges required; and nurses must be cautioned not to put any of the soiled sponges into the solution until after they have been washed, otherwise albumen may be so congelated as to prevent thorough cleansing. As nurses often fall into this error, it is well to have two or three different sets of sponges, all carefully numbered, kept separate for the successive steps of the operation."

Dr. Homans probably adopts these precautions with his nurses or assistants, though he does not mention them. The advantage of sulphurous acid over carbolic acid solution for keeping the sponges in, is that they remain soft and nearly white, while in carbolic acid they become harder, and assume a brownish red colour, suggestive of uncleanness. Dr. Homans also says:—

"I always wash my hands and forearms thoroughly, with a nail-brush in carbolized water, before beginning an operation, and require my assistants to do the same."

With regard to the dressing, he says, after having closed the wound by sutures:—

"I put on dry carbolized gauze, and enough new and clean cotton-wadding to fill up the hole left by the removal of the tumour. Next I pass a broad piece of adhesive plaster tightly round the abdomen over the dressings; this should be wide enough to extend from just above the trochanters to the sternum. Over this I pin a soft flannel swathe."

These are the only parts of his very interesting lecture which affect the question of antiseptics in ovariotomy. The whole of it, however, is well worthy of attentive consideration. In the meantime I may ask whether the "greater number of trustworthy experiments, or of comparative observations made under similar conditions with and without spray," said, in 1882, by Sir Spencer Wells, in the passage we have just quoted, to be required, have not been made in the hospital where he operated himself for so many years, and where he still acts as Consulting Surgeon. It is very well known by all visitors to that hospital that Dr. Bantock has altogether given up the spray, while it is always used by Mr. Thornton and Mr. Meredith. Surely some full and accurate account of such a remarkable series of "comparative observations made under similar conditions" might be drawn up, if not by the busy seniors, by some trustworthy junior. This would go far towards the settlement of a very important practical question.

I am, Sir, your constant reader,

A TEACHER-STUDENT.

London, May 19th, 1884.

THE COUNCIL OF THE COLLEGE OF SURGEONS AND REFORM.

[To the Editor of the Medical Times.]

SIR,—It is quite impossible that the controversy between the Council and the great body of the Fellows can remain where it is. As the mover of the resolutions which were carried at the late meeting, and which have been so ignominously ignored by the Council, I feel bound to take further action. I propose, therefore, at once to place myself in communication with the Fellows, in order that some united action may be decided upon.

I am, Sir, yours, &c.,

PAUL SWAIN, F.R.C.S.

THE EDINBURGH UNIVERSITY AND ITS TERCENTENARY.

[To the Editor of the Medical Times.]

SIR,—You, in common with other medical journals and the daily press, have recently written a great deal of "high falutin'" copy in connection with the University of Edinburgh. I wonder whether you will have the courage to publish a few lines as the reverse of Tercentenary Medal. Scotchmen are as weakly eager to be treated with indiscriminate praise as they are ungenerous in the proffering of indications of admiration or approval of others. It is no wonder that the tercentenary has been written up by Scotch contributors in every journal throughout the country, since, not only is the national vanity thus flattered, but a grand advertisement for a lucrative business is thus obtained. After all, what has the University of Edinburgh done during the last 25 years, except to sell degrees and a very minimum of instruction to those who choose to pay? The Professors of the University have made large incomes by lecturing to gigantic classes, attendance upon and payment for which are compulsory on those who desire a degree. What have these Professors taught? and what have they done besides selling degrees? They are, with scarcely an exception "just nobodies," men whose names are never mentioned beyond Edinburgh—men who, if they ever did make an original contribution to science, have ceased all such superfluous exertion since entering upon the professorial status. What have their pupils done? I do not hesitate to say, nothing of any consequence. And moreover, it is the fact that there are no graduates of any University in Britain so devoid of general education, so ill-trained in their special studies, as are the Edinburgh medical graduates. Far from deserving the lavish praise which it has lately received, the University of Edinburgh ought to be stopped in its scandalous career of mercenary degradation. Of the 3,000 students, only one-third are Scotch, and all go there, *not* because they can best learn at Edinburgh, but because there they can *buy most readily a degree*. The University allows the Professors to make a pretence of teaching 500 students in one class, and carries out this system of sham instruction in all departments, selling its degrees only to those who have attended these huge sham-classes. The whole proceeding is known both by students and professors to be humbug. The degree is bought by the one and sold by the other, but science and learning have nothing to do with it. It is as an advertisement in this highly creditable business of degree-selling that the Edinburgh Tercentenary has been organised. The so-called success of the University is the success of an advertising linendraper.

Yours, &c.,

ACADEMICUS.

[We publish this letter, not because our contributor dares us to it, but because there is a grain of truth in his allegations. Not more than a grain, however. "Academicus" must have forgotten that a considerable proportion of our younger physicians, and at least one of our most rising surgeons hail from Edinburgh, and that only within the last few years we have invited to London two Edinburgh Professors to take prominent and well-merited positions at the head of their respective branches of work. Another fact which "Academicus" ignores, or is ignorant of, is that only a small percentage of the students who study at Edinburgh University take University degrees. The rest take the licences of the Colleges. We grant that Edinburgh teachers are "canny," but they do not deserve all the abuse of "Academicus," who, if he does not take care, will be "hunted to death by wild Scotch graduates."

ED. *Medical Times.*]

THE UNIVERSITY OF DURHAM AND ITS MEDICAL DEGREES.

[To the Editor of the Medical Times.]

SIR,—The letters which have appeared in the *British Medical Journal* and other papers during the past few weeks, concerning the proposed change in the regulations for the degree of M.D. of the University of Durham, for

practitioners of fifteen years' standing, have created a very strong feeling among the graduates and undergraduates, which culminated in a crowded meeting held at the Infirmary on the 16th instant, Charles Green, M.D., Durham, Medical Officer of Health for Gateshead, in the chair, at which the following resolutions were unanimously passed :—

I. That this meeting hears with great dissatisfaction that there is in preparation a memorial praying the Senate of the University of Durham to alter existing regulations concerning the degree of M.D. for practitioners of fifteen years' standing.

II. That this meeting is of opinion that the proposed alterations would greatly detract from the value of the degree as obtained in the usual course.

III. That the degree of M.D. obtained by other than the usual course, viz. :—that of putting in residence, attendance on lectures and the passing of the several examinations—is prejudicial alike to the interests of the University of Durham and to the status of those who have obtained the degree in the orthodox manner.

IV. That a humble petition be prepared to present to the Senate praying it, not only to neglect the memorial suggesting the aforementioned alterations; but also very earnestly praying it to consider the advisability of abolishing the degree of M.D. for practitioners of fifteen years' standing.

V. That an account of the proceedings of this meeting, with the resolutions passed, be sent to the medical journals for publication.

A small committee was formed, of which Dr. Green was elected chairman, for the purpose of drawing up a petition in accordance with the above resolutions.

A circular letter is about to be sent to all graduates in medicine of the University of Durham other than those who have obtained the M.D. for practitioners of fifteen years' standing, whose addresses appear in this year's "Medical Directory."

We shall also be glad if those whose addresses do not appear will communicate with us *at once*, as we are anxious that no time shall be lost.

We are, Sir, Your obedient Servants,
J. A. HUTCHINSON, M.B., M.R.C.S.
C. POPE WALKER, M.R.C.S.,
Hon. Secretaries.

University of Durham College of Medicine,
Newcastle-on-Tyne, May 19th.

THE APOTHECARIES' SOCIETY.

[To the Editor of the Medical Times.]

SIR,—I am much obliged by your courtesy in inserting my letter in your last week's issue, though I cannot for one moment admit the force of your arguments for the exclusion of the Society of Apothecaries from all part in the medical education of the future. Indeed, your arguments would apply equally well to the case of the other Corporations, whose governing bodies and not licentiates will send representatives to the Medical Board; and, moreover, I am at a loss to conceive why age and experience should be a bar to the exercise of so important a function. You yourself admit that the Society of Apothecaries has done good work in the past, and has chosen good Examiners, Why, then, should they be incapable of choosing good representatives on the Medical Board?

I still firmly believe that if the Society of Apothecaries is excluded from representation on the Medical Boards of the future, that not only will a great injustice be done, but a great evil, as by this means the genuine general practitioner will be excluded from having a voice in medical education: for I am of the same opinion as the writer of the recent article in the *Times*, that the proposed representatives of the general practitioner on the Medical Council will consist of professional agitators who will be worse than useless.

In conclusion, allow me to say that I strongly deprecate the formation of another and lower order of medical men.

I remain, Sir, yours faithfully,
HENRY BULLOCK.

Spring Grove, Isleworth, 20th May, 1884.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 17th instant, and when eligible will be admitted to the pass examination, viz. :—Messrs. H. D. Mason, N. D. Best, A. W. Thompson, and E. F. Pratt, students of the Birmingham School of Medicine; H. T. S. Aveline, of the Bristol School of Medicine; J. H. Lightbody, of the Liverpool School; E. R. Lyth-Arthur Green and E. J. Booth, of the Newcastle-upon-Tyne School; J. W. Stainforth and C. A. Ridal, of the Sheffield School; G. A. Webster, of the Cambridge School; and H. de C. Woodcock, of the Leeds School. Eleven candidates having failed to acquit themselves to the satisfaction of the Board of Examiners were referred to their Anatomical and Physiological studies for three months. The following gentlemen passed on the 19th instant, viz. :—Messrs. William Aston, A. D. Miller, F. A. P. E. Phillips, John Westwood, and J. M. Ehrhardt, of the Birmingham School; Shirley Roberts, of the Dublin School; J. G. Johnson and W. B. Slyman, of St. Bartholomew's Hospital; H. B. W. Paige, of the Newcastle School; Robert Dane, of the Middlesex Hospital; C. G. Jackson, of the Leeds School; W. J. Neale, of the Liverpool School; and G. W. Caswell, of University College Hospital. Ten candidates were referred for three months. The following gentlemen passed on the 20th instant, viz., Messrs. H. H. Norton and P. L. Nettleship, of St. Mary's Hospital; A. A. Howell, of the London Hospital; A. H. Johnston, M. E. A. Wallis, and G. M. Jones, of Guy's Hospital; Edward Knight, of University College Hospital; E. W. Morris, of St. Thomas's Hospital; C. P. Bullock, of St. Bartholomew's Hospital; and C. W. Edwards, of the Middlesex Hospital. Thirteen candidates were referred for three months, and one for six months. The following gentlemen passed on the 21st instant, viz. :—Messrs. J. F. Bridgwood, J. F. Rymer, Enoch Moss, J. L. Roberts, H. E. Vincent, students of Guy's Hospital; C. H. Dixon, of St. Mary's Hospital; C. J. Holtom and John Melhuish, of University College Hospital; C. H. Hands and A. D. Louttit, of St. Bartholomew's Hospital; J. H. Cox, of the London Hospital. Twelve candidates were referred for three months, and one for six months.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—This College, which two or three years ago established an examination and certificate in Sanitary Science, has, by a recent resolution, thrown open the competition for this important qualification to all registered medical practitioners of the United Kingdom. The examination is held quarterly, in the months of July, October, January, and April. The fee to Licentiates in Medicine of the College is fixed at five guineas; that to non-licentiates at ten guineas. The subjects of the examination are—(1) *Ætiology and Prevention of Disease* :—Epidemiology; Infection; Hereditary Influence; Accommodation and Conveyance of the Sick; Hospitals, and their Management. (2) *Engineering:* including Hospital and House construction; Sewage; Drainage; Ventilation; Water Supply. (3) *Law* :—The Acts relating to Public Health, Duties of Health Officers. (4) *Chemistry:* with special reference to Air, Water; and Food. (5) (A) *Meteorology and Climatology;* (B) *Vital Statistics.* The examinations will be conducted as follows :—A printed paper on each of the above five subjects, from 10 a.m. to 1 p.m., and 4 p.m. to 6 p.m. One hour to be allotted for the answering of each paper, which shall have five questions. The candidates will also be examined on a second day in the reading of Engineering Plans, Sections, and Scales, and in Analytical Chemistry, with special reference to Air, Water, and Food.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 15th, 1884 :—

Docker, Edward Scott, 2, Clarendon Villas, Barnes.
Frye, Joseph Henry, 66, Old Kent Road, S.E.

Gray, Jno. Power William, 24, Barnsbury Park, N.
Jones, Harry Shirley, Oak Hall, Bromsgrove.
Syrée, Anton Hugh, Canterbury.

The following gentlemen also, on the same day, passed their Primary Professional Examination :—

Kearney, James, Queen's College, Galway.
Wallington, William Tratman, Charing Cross Hospital.

NAVAL MEDICAL SERVICE.—The following appointments have been made :—Astley Cooper, Fleet-Surgeon, to the *Indus;* Thomas D'A. Bromlow, M.D., Staff-Surgeon, to the *Turquoise;* and John J. Dinnis, M.D., Surgeon, to the *Turquoise*. The Lords Commissioners of the Admiralty have awarded the Greenwich Hospital pension of 50*l*. a year for Fleet and Staff Surgeons to retired Deputy-Inspector-General of Hospitals and Fleets, David Lyall, M.D., rendered vacant by the death, on April 15 last, of retired Deputy-Inspector-General of Hospitals and Fleets, Henry Liddell.

ARMY MEDICAL DEPARTMENT.—Brigade-Surgeon C. M. Jessop has been placed on retired pay, with the honorary rank of Deputy-Surgeon-General; Brigade-Surgeon G. M. Slaughter, to be Deputy-Surgeon-General, *vice* J. Ekin, M.B., C.B., retired; Surgeon-Major H. Knaggs to be Brigade-Surgeon, *vice* G. M. Slaughter; Surgeon-Major H. H. Burford is placed on retired pay. Brigade-Surgeon N. Norris, now serving with the Army of Occupation in Egypt, has been appointed Sanitary Officer to the British troops at Cairo, *vice* Brigade-Surgeon Macdowell, who acted as principal medical officer to the late Soudan expeditionary force.

CAMBRIDGE UNIVERSITY. — In an appendix to the annual report of the Museums and Lecture Rooms Syndicate, Professor Macalister, the professor of anatomy, states that increased accommodation for his department is urgently needed, while Professor Foster and Mr. Sedgewick ask for additional accommodation for physiology and morphology as exceedingly pressing. The Syndicate hope to make a special report on this subject.

The following candidates have been examined and approved in Part I. of the third examination for M.B. degree.

Aldred, Caius; Bryceson, Christ's; R. T. Finch, Pembroke; Jones-Bateman, Caius; Mackenzie, Emmanuel; Milnes, Downing; Pash, Pembroke; Rutherford, Caius; Shaw, Sidney; Slater, John's; E. S. Whelpton, Emmanuel; White-Cooper, Trinity.

The following have passed the second part of the third examination for the degree of Bachelor of Medicine :—

G. A. Bolton, Trinity; Bryceson, Christ's; G. T. Clapp, Gonville and Caius; Cotes, Gonville and Caius; W. Groom, Magdalene; Hoffmeister, Gonville and Caius; Jones-Bateman, Gonville and Caius; M'Connel, Gonville and Caius; Manley, Emmanuel; Milnes, Downing; J. Scott, Gonville and Caius; P. C. Scott, St. John's; Shaw, Sidney Sussex; Warwick, non-collegiate; G. F. Welsford, Gonville and Caius; Wigmore, Magdalene.

The following have been examined and approved for degree of bachelor of surgery.

Dowson, Christ's; G. L. Johnson, Caius; Jones-Bateman, Caius; Pigeon, Christ's; and Roberts, Christ's.

UNIVERSITY OF DURHAM. EASTER TERM, 1884.

FIRST M.B. EXAMINATION.—The following candidates satisfied the Examiners :—

First class honours—None.

Second class honours, in order of merit—

Arthur Hardwick, Philip Percy Manning, Edward Samuel Gooddy.

Pass-list, in alphabetical order—

William Maurice Abbott Anderson, Frederick Bass, William Biggam, Arnold Francis Bradbury, Harry Edward Brodrick, John William Dalgliesh, Augustus Charles Dove, Alfred John Gregory, Francis Washington Everard Hare, M.R.C.S., Evan Lewis Hickey, John Lloyd Thomas Jones, William Lansdale, Edgar Roe Lyth, Arthur John Helm Montague, Charles Patrick O'Connor, Edward Phillips, Alfred G. C. Pocock, Henry Renney, James Nowell Richardson, M.R.C.S., William Frederick Steele, Edward Scott Sugden, Berners George Sumpter, Charles Pope Walker, A. Whyte.

Re-examination in Chemistry only—

Thomas Harling, Henry Beddoes Wetherall Plummer, Charles Frederic Rumboll, Edgar B. Sugden.

Re-examination in Botany only—

George Cranstoun, Henry W. Cross, Hugh Rayner, M.R.C.S.

The following passed in Anatomy, Physiology, and Chemistry—

William Joseph Essery, Richard Pryce Mitchell.

The following passed in Anatomy, Physiology, and Botany—

Harry Spelman Baumgartner, Charles Frederick Lyne Dixson.

Examination for Certificate of Proficiency in Sanitary Science—

Joseph Auspicio Simoens, M.D. Brus., L.M.S. Bombay, L.R.C.P. Lond.
Francis John Walker, M.R.C.S., L.R.C.P., L.S.A.

UNIVERSITY OF EDINBURGH.—The following candidates have passed the undernoted examinations held during last month :—*First Professional Examination.*—C. M. Allan, C. A. Anderson, D. H. Anderson, J. J. André, Alexander Asher, Benjamin Barnard, G. P. Beatton, Walter Bell, William Bell, W. W. O. Beveridge, H. L. Blacklaw, W. S. Bower, C. W. Brown, J. L. Brown, John Bruce, F. O. Buckland (B.A.), A. E. Bullock, M. B. Burton, Peter Cairns, James Cameron, L. B. Christian, J. M. Clarke, A. E. Cox, H. B. Densham (with distinction), Duncan Drummond, E. H. Ezard, A. D. Fleming, R. S. Forrest, S. C. Fowler, D. A. Fraser, W. M. Gabriel, T. H. Gee, F. S. Genney, J. A. Gibson, A. W. Gibson, A. L. Gillespie, George F. Grant, John Grant, Abernethy; S. E. Creg, Curt Grobbelaar, George Hall, George Hardyman, Charles Harvey, George Harwood, C. W. Hayward, G. S. Hicks, R. N. Highmoor, F. R. B. Hinde, F. A. Holmden, J. R. Holmes, Andrew Hostage, J. R. Hutton, Thomas Ireland, F. A. Juckes, William Kemp, H. R. Kenwood, Geo. Knowles, J. W. Lewis, W. J. Lewis, Frank Liddell, J. R. Lownds, John M'Andrew, John Macdonald, G. S. Macgregor, Henry Mackay, W. A. Mackintosh, D. M. Maclachlan, A. A. Macleod, H. W. G. Macleod, John M'Naughton, W. G. Macpherson, W. P. Magee, Alfred Mann, Alan Matheson, S. W. Mathias, T. G. Meikle, Thomas Meiring, A. van der Merwe, J. G. Moffatt, James Moir, H. M. Montgomery, T. L. Morgan, F. H. Morison, R. H. Morrison, P. R. Murison, M. F. X. Nalletamby, W. S. Nason, A. B. Northcote, G. J. L. O'Neill, William O'Rourke, J. C. Palmer, W. B. Paterson, S. C. Paton, H. N. Pelly, J. A. Perez, A. F. R. Platt, J. F. Pridie, G. M. Rae, C. Reid, Henry Robinson. A. R. Russell, J. S. R. Russell, G. S. Samuelson, H. C. L. Scofield, Walter Scott, L. Segol, W. A. Simpson, J. H. Slayter, H. M. Smellie, C. A. C. Smelt, Frederick Smith, Thomas Smith, W. C. Sprague, C. D. Stewart, Charles Stewart, James Taylor, W. R. Taylor, Alexander Thomson, Alexander Thomson, G. R. Thomson, T. H. Underhill, A. D. Vardon, A. H. Vassie, Thomas Walcot, E. D. Wellburn, P. J. White, George Wilson, O. R. M. Wood, and M. C. Wright. *Second Professional Examination.* — A. R. Aldridge, James Anderson, J. A. Ashcroft, J. M. Balfour (with distinction), H. L. Barker, T. W. Bell, R. N. Bell, Robert Beveridge, F. M. Blumer, G. L. Bonnar, L. J. H. Bouchet, Alex. Brewster, Harbit Brown, A. J. A. Campbell, Edward Chamberlayne, P. B. Chetti, E. W. Clarke (B. Sc.), F. G. Clemow (with distinction), F. W. Collinson (with distinction), J. F. Cownie, A. J. Cross, C. S. Davies, J. H. Dawe, Jules Delépine, K. M. Douglas (with distinction), D. R. Dow, Thomas Duncan, W. M. Eaton, Thomas Edwards, William Elder, T. L. Ferrier, L. G. Fischer, David Fraser, E. S. Fry (with distinction), Robert Fullerton, J. E. Gemmell, J. G. Glover, G. B. Goodall, Robert Gordon, T. H. Griffith, Benjamin Griffiths, Joseph Griffiths (with distinction), F. O. Guérin, G. L. Gulland, J. A. Guthrie, J. H. Helm, W. C. Helme, W. H. Hill, Herbert Hirst, W. E. Home, A. W. Hughes, Samuel Hughes, James Hunter, James Hutcheson, G. F. Johnston, T. J. Jones, R. C. Joyce, Arwid Kellgren, F. T. King (with distinction), F. H. Knaggs, Francis Kraemer, J. C. Lamont (with distinction), A. W. M. Leicester, L. H. Le Merle, W. M. Little, Duncan M'Diarmid, H. C. M'Ewen, J. M. Maclennan, R. C. Macwatt, D. G. Marshall, D. J. Mason, R. T. Meadows, C. H. Melville, William Miller, C. J. Morton, Edwin Morton, A. W. Nash, Glenmore Ozanne (with distinction), Alex. Paterson, Ian Paterson, M. G. Pereira, H. H. Pridie, E. E. Pringle, E. T. Pritchard, Ernest Roberton, G. M. Robertson, G. A. Scott, K. M. Scott, John Simpson, Thos. Slingsby-Tanner, G. R. Smeits, G. L. Somerville, W. C. Spiller, W. H. G. Stephen, Robert Stirling, R. C. Strode, James Stuart, W. G. Sym, J. R. Talbot, J. W. Talent, Caleb Terrey, W. E. Thomas, J. T. Thompson, Alfred Turner, J. C. S. Vaughan (with distinc-

tion), S. T. Vine, David Walker, D. H. Walsh, P. E. Warburton, John Warnock, F. E. Welby, W. J. Will, A. B. Winder, W. S. R. Woodforde, Henry Worsley.

University of Edinburgh.—The Vans Dunlop Scholarship in Physiology and Surgery has been awarded to Joseph E. Bowser.

Sir Spencer Wells.—Sir Spencer Wells has received the decoration of Commander of the Royal Norwegian Order of St. Olaf, forwarded by direction of His Majesty the King of Sweden and Norway.

Society for the Relief of Widows and Orphans of Medical Men.—The annual general meeting of the Society was held at 53, Berners Street, on Tuesday, 13th inst., at 5 p.m., Sir James Paget, Bart., President, in the chair. From the report (read and adopted) it appeared that the members of the Society numbered 370, no increase on the previous year; 11 new members had been elected during the year, 6 had died, and 5 resigned. Fifty-seven widows and 5 orphans were in receipt of grants, 3 widows less than in 1882. No fresh applications for assistance had been made during the year. A sum of 2,776*l.* had been distributed, and the expenses of the year amounted to 226*l.* The receipts available for payment of grants and expenses had been 3,160*l.* Two legacies had been paid, which with a life subscription of 30 guineas had been added to the funded property, making an increase of 311*l.* 10*s.* to the amount standing in the names of the trustees. Mr. James T. Ware and Sir Erasmus Wilson were elected Vice-Presidents, in the place of Sir James Paget, elected President on the retirement from office of Sir George Burrows, and Mr. Hawkins, resigned. Dr. Kempster, Mr. Felce, Mr. Brodhurst, Mr. B. T. Lowne, Dr. Herbert Davies, and Dr. Russell Reynolds were elected Directors in the place of the six senior who retired by rotation. A grant of 15*l.* was made under a special by-law to the daughter of a deceased member. The Chairman (Sir James Paget), in moving a vote of thanks to the editors of the medical journals, was pleased to have the opportunity of expressing how much the Society was indebted to the editors for the kindness and readiness they had always shown in forwarding and making known to the medical profession the great benefits the Society was able to confer on the widows and orphans of deceased members. Mr. Charles Hawkins moved a vote of thanks to the Chairman for his great kindness in taking the chair at the meeting.

The Small-pox Epidemic.—In consequence of the increase in the number of small-pox patients, the managers of the Metropolitan Asylum District have been compelled to remove all fever patients from their hospital at Fulham, and open the hospital only to those suffering from small-pox. The consent of the Local Government Board has had to be obtained to this arrangement.

Dr. Koch's Reports.—The reports of the German Cholera Commission have been published as part of a Parliamentary Paper on the Cholera Epidemic in Egypt.

Aberdeen Royal Infirmary. — From the annual report of this institution, just issued, we notice a large increase in out-patients, while the demand made on beds in the wards is still very great. Notwithstanding the special appeal to the general public, the financial year closes with a deficit of 659*l.* 19*s.* 2*d.* The much-required extension of the infirmary buildings, the managers regret, must be again deferred, as only one-third of the sum required for that object has been received.

The late Dr. David Manson.—Dr. David Manson, who died of inflammation of the lungs, at the early age of 45, on April 9th, at his residence, Eaglestone, Strathpeffer, was a distinguished graduate in Arts and Medicine of Aberdeen University. At the outset of his career he practised in London, but soon left, being chosen at the early age of 26 by the Duchess of Sutherland as resident physician to the Strathpeffer Spa. He remained at the Spa for a number of years, but gave it up for a more lucrative practice in Chesterfield. He was the author of two well-known works, "On the Strathpeffer Spa" and "On the Sulphur Waters of Strathpeffer," the last named passing through many editions, and helping to bring this once obscure Spa into notice.

Munificent Gift to Bellevue Hospital Medical College, New York.—Mr. Carnegie, one of the trustees of the school, has recently given the sum of 50,000 dollars to the College, to be expended in the erection of a building and apparatus for laboratories for practical work and teaching in everything relating to microscopical and experimental research in the different departments of medicine. The building will belong to the College, but the advantages pertaining thereto will not be restricted to students connected with the College. They will be open to students connected with other schools, and to members of the medical profession throughout the country.—*Philadelphia Medical News*, May 3rd.

Life Assurance on Negroes.—The *Boston Medical Journal*, May 1st, says: "The Senate of Massachusetts has passed a Bill requiring Life Insurance Companies within the State to remove the discrimination in tariff which they have hitherto maintained against negroes. It seems impossible that legislation of this sort can effect any good object. The former rules of the Companies were in no sense an oppression of the coloured race. If the rates were higher to them, it was because experience had shown that their expectation of life was not so good as that of whites, and all that remains now for the Companies is to decline to accept risks on negroes, which is no great gain to the latter. Such laws, if not mere political buncombe, are examples of legislation undertaking to fix the price of commodities, and are not likely to prove particularly successful."

New Disinfection Furnaces at Paris.—Mortuary depositories have been ordered to be erected in the Paris cemeteries, and these depots, of which there is one at Père la Chaise, are to be supplied with disinfecting apparatus, which will not only be employed in the case of death, but will be open to the public for the disinfection of the clothes and bedding of the sick. The Assistance Publique now possesses ten gas furnaces, three at the St. Louis, and one each at seven other hospitals. These establishments, together with ambulances for the conveyance of patients suffering from contagious diseases, the Parisian population owe to the exertions of several hygienists, as MM. Pasteur, Colin, Vallin, Vidal, &c. — *Gazette Hebdomadaire*, May 9th.

The Relative Calibre of the Trachea and Bronchi.—In a paper lately read before the Académie de Médicine, Dr. Marc Sée stated that he has deduced the following conclusions from his anatomical measurements:—"(1) In the normal state the united calibres of the two bronchi are equal to the calibre of the trachea, and I may add that, according to a few measurements which I have made, the united calibres of the bronchial subdivisions equal the calibre of the bronchus from which they originate. The respiratory passages therefore represent a cylinder and not a cone. (2) In the pathological condition, the equilibrium between the capacity of the trachea and bronchi may be destroyed, either in favour of the bronchi, as in chronic tuberculosis, or to the advantage of the trachea, as in emphysema."

Death of Prof. O'Keeffe.—Dr. Matthias O'Keeffe, the Professor of Materia Medica at Queen's College, Cork, and Lecturer in Medical Jurisprudence, has died at the early age of 54. Before his appointment as professor, Dr. O'Keeffe had been for several years librarian of the College. As a surgeon and physician he enjoyed a high reputation and a large practice. He acted as honorary surgeon of the local hospitals, and was an examiner of the Royal University. He was frequently employed by the Crown as analyst in important criminal prosecutions.

Samaritan Free Hospital.—A festival dinner, in support of the funds of this charity, was held at Willis's Rooms, on Tuesday, Lord Dalhousie in the chair.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—The annual dinner was held at the Holborn Restaurant on Tuesday, and was largely attended.

THE Library of the Royal College of Surgeons will be closed, for the purposes of the examinations, on May 23rd and 29th

APPOINTMENTS.

BIGGS, C. E. F. M., M.R.C.S., L.R.C.P.—Junior House Surgeon and Cloroformist to the Cheltenham General Hospital and Dispensary.
CALDERWOOD, GEORGE, M.D., C.M.—Medical Officer to the Egremont District, Whitehaven Union.
DRUITT, LIONEL, M.R.C.S. Eng., L.R.C.P. Lond., C.M.M.D. Edin.—Medical Officer to the Seventh District, Lambeth Parish.
DUNCAN, W. A., M.D.—Assistant Obstetric Physician to the Middlesex Hospital.
ERSKINE, J., M.A., M.B., C.M., L.F.P.S.—Surgeon to the Ear Department of Anderson's College Dispensary, Glasgow, *vice* Thomas Barr, M.D., resigned.
GOSTLING, J. H., M.R.C.S., L.S.A.—House Surgeon to the Morpeth Dispensary, *vice* J. Erskine Paton, M.B., resigned.
GRAHAM, GEORGE H., L.R.C.P., M.R.C.S., L.S.A.—Medical Officer to the Workhouse and the Second District.
GREVES, E. H., M.B., M.C.—Physician to the Liverpool Infirmary for Children, *vice* F. Pollard, M.D., resigned.
JONES, ARTHUR, C.B., M.R.C.S. Eng.—Medical Officer to the Empingham District, Oakham Union.
LOTHIAN, J. A., M.D., F.F.P.S. Glasgow.—Surgeon to the Glasgow Royal Infirmary.
MCDONNELL, C., L.R.C.S.I., &c.—Surgeon to the Dawson Street Dispensary, Manchester.
NUNNERLEY, R. J., L.R.C.P., M.R.C.S.—Junior House Surgeon to the Macclesfield General Infirmary, *vice* R. W. Branthwaite, L.R.C.P., M.R.C.S., resigned.
PRUEN, S. T., M.B. Durh., M.R.C.S.—Senior House Surgeon to the Cheltenham General Hospital and Dispensary.
ROOCROFT, W. M., M.R.C.S., &c.—Reappointed Honorary Surgeon to the Royal Albert Edward Infirmary, Wigan.
SMITH, FREDERICK W., L.R.C.P., M.R.C.S., L.S.A.—Medical Officer to the St. George's Workhouse, St. Saviour's Union.
STEVENS, FRANCIS J., M.R.C.S., L.S.A.—Medical Officer to the Kilburn District, Thirsk Union.
STOKER, GEORGE, M.R.C.S.E.—Surgeon to the Hospital for Diseases of the Throat and Chest.
WOODHOUSE, STEWART, M.D.—Local Government Inspector for Ireland.
YOURELLE, Dr.—Medical Officer to Dunboyne Dispensary, County Meath, Ireland.

VACANCIES.

BIRMINGHAM GENERAL HOSPITAL.—Resident Assistant Surgical Officer. (*For particulars see Advertisement.*)
BOROUGH HOSPITAL, BIRKENHEAD.—Honorary Surgeon. Candidates must be Members of the College of Surgeons of London, Dublin, Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow. Applications to be made to the Honorary Secretary, W. W. St. George, Esq., 11, Holly Bank Road, Clifton Road, Birkenhead, on or before May 27th. The election will take place on May 29th.
DENBIGHSHIRE INFIRMARY, DENBIGH.—House Surgeon. Salary to commence at £85 per annum, with board, residence and washing. Candidates must be duly qualified. Conversant with the Welsh language. Applications to be sent to the Secretary, on or before June 5th.
DEPWADE UNION.—Medical Officer to the Seventh District, *vice* Mr. Heynes Hardwick, resigned. Area, 10,732 acres. Population, 2,703. Salary, £58 per annum.
FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, &c. Candidates names must appear upon the Medical Register as being possessed of a medical and surgical qualification, and they must produce evidence of good moral character. Private practice strictly prohibited. Applications, with testimonials, to be sent to the Secretary, on or before June 11th. The election to take place on June 18th.
GAINSBOROUGH UNION.—Medical Officer for the Walkeringham District, *vice* Mr. T. B. Wright, deceased. Area, 15,732. Population, 3,835. Salary, £52 per annum.
GUEST HOSPITAL, DUDLEY.—Resident Medical Officer. Salary £120 per annum, with furnished residence, board, coal and gas. Candidates must be registered with a double qualification, and be unmarried. Applications, with testimonials, and certificates of registration, to be sent to Mr. E. Poole, Secretary, not later than June 4th.
HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE, W.—Resident Medical Officer. (*For particulars see Advertisement.*)
LOUTH UNION.—Medical Officer to the Withern District, *vice* Mr. James Hurley, resigned. Area, 18,123. Population, 2,678. Salary, £50 per annum.
NORTHAMPTON GENERAL INFIRMARY.—Surgeon. (*For particulars see Advertisement.*)
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Medicine and Midwifery. (*For particulars see Advertisement.*)
ROYAL UNITED HOSPITAL, BATH.—Resident Medical Officer. (*For particulars see Advertisement.*)
STOURBRIDGE UNION.—Medical Officer to the Kingswinsford Third District, *vice* Mr. John Parrish, deceased. Population, 12,070. Salary, £54 per annum.
SUDBURY UNION.—Medical Officer to the Sixth District, *vice* Mr. C. W. Whistler, resigned. Area, 11,543. Population, 3,047. Salary, £59 per annum.
SUNDERLAND INFIRMARY.—Senior House Surgeon. Salary, £100 per annum, with board and residence. Candidates must possess double qualifications (registered). Applications, with testimonials, to be sent to the Chairman of the Medical Board, on or before June 2nd. The election will take place on June 12th.
THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)
TOWN OF CALCUTTA.—Health Officer. (*For particulars see Advertisement.*)
WOODBRIDGE UNION.—Medical Officer to the Third District, *vice* Mr. C. G. Marshall, resigned. Area, 14,187 acres. Population, 6,444. Salary, £110 per annum.

DEATHS.

ATKINSON, RICHARD, M.R.C.S., at Richmond, Yorkshire, on May 16th, aged 84.
GALE, HENRY STANLEY, M.R.C.S., at Manchester, on May 4th.
MURE, JOHN, M.D., Inspector-General of Hospitals (retired), at 40, Tedworth Square, on May 16th.
SMITH, FRANCIS KIRBY, F.R.C.S., of Northampton, at Ambleside, on May 11th, aged 37.
SPENCER, CHARLES, M.R.C.S., at Whitchurch, Bucks, on May 12th, in his 73rd year.

NOTES, QUERIES, AND REPLIES.

ACCIDENTAL SYPHILIS.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—I think Dr. Capers, of Vicksburg, Miss., can cap Dr. Thomas's wonderful case of accidental syphilis, described in your paper of May 17th, p. 667.

During one of the hard-fought battles between North and South a bullet passed through the testicle of a young and ardent soldier, and thence journeyed through the ovary and uterine wall of a beautiful girl of 17 who was aiding the wounded. Dxactly 278 days afterwards the lady was delivered of a fine healthy boy, in the testicle of whom was found the identical bullet that had wounded the mother. Dr. Capers thinks it possible some of his professional brethren may not be inclined to believe his tale true in all its details, but asks, Why not? A full and graphic account of the whole case is to be found in the *Lancet*, January, 1875, p. 35.

I am, Sir, &c.,
RICHARD NEALE, M.D. Lond.

May 16th, 1884.

Collegiate Lectures.—The annual course of lectures at the Royal College of Surgeons, which were suspended owing to the examinations for the membership, will be resumed on Wednesday, the 4th proximo, when Mr. E. A. Schäfer, F.R S., will commence his course of three lectures—the first on "The Functions of the Marginal Convolution;" second, on "The Analysis of Voluntary Muscular Action;" and the third on "The Mechanism of Absorption." The lectures will be brought to a close by Professor Sir Henry Thompson, F.R.C.S., who will commence his course of six lectures on Wednesday, the 11th proximo, on "Some Important Changes in connexion with the Surgery of the Urinary Organs. These several lectures will be delivered on Mondays, Wednesdays, and Fridays at 4 o'clock.

Collegiate Examinations.—The primary or Anatomical and Physiological examinations for the diploma of membership of the Royal College of Surgeons, were resumed on the 16th instant, when the following questions on Anatomy were submitted to the candidates, who were required to answer four, and not more, out of the six questions, between 1 and 3 o'clock p.m., viz.: 1. Describe the course and distribution of the cutaneous branches of the three divisions of the fifth cranial nerve on the face. 2. Describe the origin, course, and relations of the portal vein. Mention the situations in which it communicates with the systemic circulation. 3. Mention the structures in contact with the interosseous membranes of the fore-arm and leg. 4. Describe the mesentery; its attachments, length, structure, and the parts contained therein. 5. Describe the dissection required to expose the flexor longus pollicis in the fore-arm. 6. Trace from the commencement to the termination the various constituents of the spermatic cord.

The following were the questions on Physiology, to be answered between 4 and 6 o'clock p.m., viz.: 1. Describe the functions of the grey and white substances of the spinal cord. 2. Describe the structure of a Graafian follicle, and the maturation and discharge of an ovum. 3. What is meant by the partial pressure of a gas? What is the partial pressure of the oxygen in atmospheric air? How does expired differ from inspired air? 4. Give the innervation of the intrinsic and extrinsic muscles of the eye. State what would be the effect of the division of each of the nerves you mention. 5. Follow the successive stages of digestion which milk undergoes in the alimentary canal. 6. Describe the coloured corpuscles of the blood, and how they are affected by various reagents.

COMMUNICATIONS RECEIVED—

Mr. W. W. Jones, London; The Registrar of the University of Edinburgh; Mr. A. Bruce Joy, London; Dr. Jagielski, London; Mr. Lawson Tait, Birmingham; The Hon. Secretary of the Obstetrical Society, London; The Secretary of the Newspaper Press Fund, London; Dr. Richard Neale, London; Dr. J. H. Clarke, London; The Secretary of the Hospitals Association, London; The Secretary of the American Laryngological Association, New York; Mr. A. Wynter Blyth, London; The Secretary of the Apothecaries Hall, London; The Secretary of the Society for Relief of Widows and Orphans, London; Mr. P. Swain, London; Dr. H. B. Donkin, London; Dr. Willoughby, London; Our Vienna Correspondent; Student-Teacher; Academicus; Our Aberdeen Correspondent; The Director of the Anthropological Institute of Great Britain and Ireland, London; Dr. Henry Bullock, Isleworth; The Registrar-General, Edinburgh; The Hon. Secretaries of the University of Durham College of Medicine; The Sanitary Commissioner of the Punjaub, Lahore; The Secretary of the Royal Institution, London; Messrs. Bermingham & Co., London; Mr. T. M. Stone, Wimbledon; Dr. J. W. Moore, Dublin; The Secretary of the International Health Exhibition, London; Mr. H. A. Ferguson, London; Mrs. Butler, London; Mr. J. T. W. Bacot, Seaton, Devon; Mr. George Gardner, Rochester; The Secretary of the Royal Medical and Chirurgical Society, London; Dr. Vintras, London.

BOOKS RECEIVED—

The Leamington Waters, by F. W. Smith, M.D.—Clinical Observations of the Use of Jequirity in Trachoma, by H. Knapp—Diseases of Women, by H. Macnaughton Jones, M.D., &c.—On the Unity of Poison, &c., by Dr. G. de Gorrequer Griffith—The Non-Bacillar Nature of Abrus-Poison, by C. J. H. Warden, and L. A. Waddell, M.B.—Diseases of the Ear, by Thomas Barr, M.D.—Pathology and Morbid Anatomy, by Dr. Green—Report on the London Water Supply for the month ending April 30, 1884—Report on the Health of the Borough of Birmingham, for the year 1883—Report on the Health of the Borough of Birmingham, for the quarter ending March 29, 1884—Discussion on Albuminuria—Sessional Proceedings of the National Association for the Promotion of Social Science—Report of the Delancey Fever Hospital for the year 1883—Annual Report on the Birmingham Borough Asylums for 1883—Aneurism of the Femoral Artery, &c., by W. O. Roberts, M.D.—The Periodic Law, by J. A. R. Newlands, F. I. C., F.C.S.—Surgical Emergencies, by Dr. L. Von Lesser—Diseases of the Hip, by V. P. Gibney, A.M., M.D.—Medical Jurisprudence, by A. M. Hamilton, M.D.—Excessive Venery, &c., by Joseph W. Howe, M.D.—Herschell's Urethral Charts—Public Health, by T. W. Hime, B.A., M.B.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynakologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—The National Review—The Journal of the Vigilance Association—Weekblad—Revue de Chirurgie—The Journal of the British Dental Association—Archives de Neurologie—Correspondenz-Blatt—The American Journal of Obstetrics—The Dublin Journal of Medical Science—Revue d'Hygiène—Société Médicale—Revue de Médicine.

APPOINTMENTS FOR THE WEEK.

Friday, May 23 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society of London.—Mr. Wm. Anderson, "A Case of Pyelo-lithotomy;" Dr. Finlay, "Sequel to a Case of Aortic Aneurysm;" Mr. Golding Bird, "Two Cases of Hernie en bissac;" Dr. F. Taylor, "A Case of Impaction of Bone in the Larynx;" Mr. B. Roth, "Uncommon Lateral Curvature of Spine, with extreme Osseous Deformity" (living specimen).

Royal Institution, 8 p.m.—Mr. D. Gill, "Distances of Fixed Stars," &c.

Saturday, May 24.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Royal Institution, 3 p.m.—Professor Bonney, "Microscopical Geology."

Monday, May 26.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, May 27.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Anthropological Institute of Great Britain and Ireland, 8 p.m.—Mr. Theodore Bent, "Notes on Remains from Cemeteries in the Island of Antiparos;" Mr. H. O. Forbes, "The Koeboes of Sumatra;" Mr. J. G. Garson, "On the Osteology of the Koeboes of Sumatra."

Royal Institution, 3 p.m.—Prof. Gamgee, "Nerve and Muscle."

Royal Medical and Chirurgical Society, 8.30 p.m.—Dr. G. E. Herman, "An Average or 'Composite' Temperature Chart of Small-pox;" Dr. G. W. Cayley and Mr. A. Pearce Gould, "Gangrene of the Lung treated by Drainage—Recovery;" Dr. Cecil Y. Biss, "On the Treatment of Pus-secreting Basic Cavities of the Lung by the Method of Paracentesis and Free Drainage."

Wednesday, May 28.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, May 29.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Royal Institution, 3 p.m.—Prof. Dewar, "Flame," &c.

Friday, May 30.

Royal Institution, 8 p.m.—M. E. Mascart, "Sur les Couleurs."

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ON THE PATHOLOGICAL NATURE, ÆTIOLOGY, AND TREATMENT OF PNEUMONIA.[1]

By J. BURNEY YEO, M.D., F.R.C.P.,

Physician to King's College Hospital.

After a few introductory remarks Dr. Yeo said that no one would doubt that the keen and searching spirit of positive experimental inquiry which animated the pathology of our day was destined to greatly modify our conceptions as to the nature of disease, in many of its forms; bidding fair to make our present era one of the most remarkable and one of the most illustrious in the history of medicine. The mistaken attempt to base a rational pathology exclusively on morbid anatomy, upon the anatomical analysis of morbid changes, had been pushed, perhaps, to its extreme limits; yet pulmonary pathology must ever remain deeply indebted to these anatomical studies, and, in particular, for having enabled us to differentiate between many forms of pulmonary consolidation and infiltration, which we could not otherwise have accurately distinguished; but it was with the results of experimental inquiries in connection with pneumonia that they were now especially concerned. With the application of that method to the study of pneumonia we had entered upon a new phase in the pathological history of that malady, and it became necessary that we should ask ourselves whether the conceptions that had hitherto prevailed as to the nature of that disease were correct or erroneous. It was a subject of the widest and most general interest, and one which had, he thought, been wisely selected by the British Medical Association for the purpose of Collective Investigation, and by that important branch for immediate discussion.

The subject they proposed to examine was *acute lobar pneumonia*, the so-called croupous pneumonia of German authors, and he intended to limit his observations exclusively to its pathological nature, its ætiology, and its treatment.

It had recently been asserted that acute croupous pneumonia was a parasitic disease, and that it was caused by the entrance into the body of a peculiar and characteristic micro-organism. In order to establish the fact that a given disease was due to the presence of micro-organisms, it was held to be necessary:—(1) That an organism of definite form and characteristics should always be found in the blood, or in the diseased organs. (2) That the blood, or the diseased tissue, when introduced into another animal of the same species, should produce the same disease. (3) That when the blood or diseased tissue was inoculated on a suitable soil out-

[1] Abstract of an Address delivered at Birmingham before the Birmingham and Midland Counties Branch of the British Medical Association, on April 24th, 1884.

side the body, the micro-organisms contained therein should grow and be propagated indefinitely on similar soil. (4) That the organism thus separated from the remains of the material in which it was imbedded, thus isolated, when inoculated into a healthy animal, should reproduce the same disease, and the same organisms should reappear in the diseased parts. It was maintained that in pneumonia, as in anthrax, in septicæmia of the mouse, in erysipelas, in tuberculosis, and in glanders, all the conditions required to establish the fact that a given disease was due to the presence of a micro-organism had been fulfilled.

So long ago as 1875, Klebs asserted that pneumonia was a parasitic disease, and both he, and subsequently Eberth and Koch, had found a micro-organism in cases of pneumonia. But Friedlander had the credit of first accurately differentiating this organism, and describing its specific form and characteristics. He found these typical micrococci in the alveolar infiltration, amongst the leucocytes and red blood corpuscles, in eight cases of croupous pneumonia, which he examined after death. Günther found the characteristic organisms in some fluid he withdrew from the chest of a moribund patient, and Leyden found them in a few drops of blood withdrawn from the lung of a pneumonia patient, thirty-six hours before death.

These organisms, as described by Friedlander, were micrococci of elliptical form, one micro-millimetre in length, and one-third less in breadth. They occurred connected together in pairs, as *diplococci*, and frequently they formed longer chains; but these chains were distinctly seen to be made up of a series of pairs, a series of diplococci. They were characterised and differentiated from other micro-organisms found in the body by *being surrounded by a capsule*, which was thought by Friedlander to consist of mucin. The capsules, however, were not always present, and were not easily demonstrated. They were thought to be a product of the life of the micrococcus.

The *pure* organism obtained by Friedlander and others by cultivation, had been introduced into the bodies of animals, usually mixed with distilled water and injected into the pleural cavity. On 9 rabbits it produced no effect, but it proved fatal to 32 mice, in from 18 to 20 hours. The organism was found in enormous numbers in the engorged and hepatised lung, in the blood, in the spleen, and in the fluid of the pleura. In the latter situation the *diplococci* were encapsulated. When the same fluid was heated so as to destroy the organism, its injection produced no effect. Cultivations from these mice produced the same effect on other mice. An attempt was also made to introduce the organism into the lungs of mice by *inhalation;* the fluid containing the micrococci being diffused by a hand spray into their cage. In this experiment some mice were affected, some were not. In the case of the latter, it was suggested that but little of the fluid entered the lungs, as they turned their backs to the spray.

"But there is another consideration," said Dr. Yeo, "which has been somewhat overlooked in connection with the inhalation of pathogenic organisms, and to which I may take this opportunity of calling attention. It is, that under normal conditions the suspended solid particles in the atmosphere taken in with the *inspired* air, are cast out with the *expired* air. The mucus of the buccal and pharyngeal mucous membrane is crowded with micro-organisms, but these the ciliated epithelium of the air tubes keeps from reaching the air cells; and they, probably, penetrate but a short distance into the air passages with the *tidal* air. This was well-shown in a case of empyema communicating with the lung, which was under my own and Sir Joseph Lister's care, in King's College Hospital, last year. For though there was an opening in the lung, permitting the periodical ejection of large quantities of pus, the pus in the pleural cavity remained perfectly sweet and quite free from putrefactive organisms; which was no doubt due to this protective office of the bronchial ciliated epithelium. It has, no doubt, been a difficulty with many in the way of accepting the view that diseases like phthisis and pneumonia are dependent on the inhalation from the air of special pathogenic organisms, that so many escape infection who must, it would seem, occasionally inhale these bodies. But apart from the consideration that the causes of these diseases are complex, and cannot consist of a single factor, we must give due weight to the very obvious reflection I have just stated, viz.—that in the respiration of most healthy persons, whatever solid particles floating in the air, pass into the lung in inspiration, pass out of it in expiration; that the air ordinarily exchanged in respiration is the *tidal* air, not the air of the air cells, and that whatever organisms may penetrate beyond the limits of the tidal air, into the air passages, are arrested and driven back by the action of healthy bronchial ciliated epithelium. Now it is possible that one of the factors in the causation of these diseases may be, for instance, *a temporary or permanent paralysis of the ciliated epithelium*, or a denudation of this protection from a portion of the air passages. Or some abnormal condition of the mucous secretion may either, on the one hand, paralyse these cilia, or on the other, *stimulate these germs to overwhelming multiplication.* When we consider that the bacillus which causes septicæmia in the house-mouse is unable to produce any deleterious effect in the field-mouse, we must be struck with the very special nature of the conditions which determine the growth and activity of these organisms."

After dealing with the objections that had been made, especially by Parjesz, of Klausenberg, to Friedlander's view with regard to the organism he had named the pneumonia micrococcus, Dr. Yeo referred to the researches of Dr. Rudolf Emmerich, of Munich (*Fortschritte der Medecin*, March, 1884), who had proved that the material found stuffing the space between the floor and ceiling of the dormitories of a prison at Amberg, where epidemic pneumonia had long been, as it were, domiciled, was crowded with enormous masses of the peculiar organism which had been stated to be pathogenic of pneumonia.

These observations naturally lent great weight to a view of the pathological nature of certain forms of pneumonia, which was by no means new; for many writers in this and in other countries had expressed a suspicion that pneumonia sometimes occurred as an infective and contagious malady, and numerous instances of its epidemic occurrence were on record; while many, who would be unwilling to admit its infectious or contagious nature, were convinced of its occasional occurrence in what was called a "pythogenic" form. One of the most instructive instances on record of the supposed epidemic occurrence of pneumonia, and its supposed propagation by contagion, was described by Stokes, of Dublin, who wrote as follows:—"The occurrence of this disease, as affecting great numbers in a particular locality, was observed in this city some years since. The persons attacked were *young* and *healthy* men, privates in the constabulary force, who were quartered in the then newly erected barracks in the Phœnix Park; these young men were well fed and clothed, and might be considered as possessing the greatest strength and vigour. It is a remarkable circumstance that at the time of the appearance of this disease, many cases of another and extraordinary affection were observed in the poor-houses and hospitals in and near Dublin. I allude to cerebral-spinal arachnitis, and it is important to mention that several cases of this disease occurred in the force contem-

poraneously with those of pneumonia. The general characters of the pneumonia were suddenness of invasion and great rapidity of progress; the lung rapidly passing into hepatisation."[1]

Another interesting account of an epidemic of pneumonia was given by Surgeon-Major Costello, of the Bengal Medical Department. His regiment had lost from this disease between 30 and 40 men out of 550, in a few weeks. It was almost confined to two companies, and when it appeared amongst the married, it spread to different members of the family, and when cases were taken into hospital, it spread to other patients, ill of other diseases, and to the nurses and attendants. There was always a catching pain in the side, the infiltration spread rapidly through the lungs, and was attended with "typhoid" symptoms. Removal from barracks to tents, isolation of affected persons and their attendants, immediately arrested the progress of the disease.[1]

A very remarkable series of cases, pointing to direct contagion, had been recorded by Mr. Patchett, of Shaw, near Oldham,[1] and another, scarcely less remarkable, by Dr. F. H. Daly, of Hackney Downs.[1]

Many instances from the time of Courvoisier, Laënnec, and even earlier, were also on record of the epidemic occurrence of pneumonia; cases of pneumonia occurring together in groups, larger or smaller, and in which the suspicion of spread by contagion had not been altogether absent. These instances appeared to have occurred independently of any common meteorological conditions, but they had, in many cases, appeared to be in some way connected with local insanitary surroundings. A good example of the latter was the account given by Penkert[1] of an outbreak of croupous pneumonia in a village of 700 inhabitants, 42 of whom were attacked and 2 died, between the 11th of March and 14th of May, 1881.

They were doubtless aware that the question had been raised, whether these so-called epidemics of pneumonia might not be, in some instances, cases of typhoid, with early development of lung consolidation. It had also been observed that epidemics of pneumonia succeeded epidemics of typhoid, and epidemics of typhoid succeeded epidemics of pneumonia; and it would seem that the presence of putrescent matter was favourable to the culture of both germs.[1] In an epidemic observed by Kühn,[1] at Moringen, in Hanover, the approximation to typhoid in some of the cases was well marked. The cases occurred in an overcrowded prison; 33 cases were observed in one epidemic, and 70 in another. They differed from those of typical pneumonia—there was no initial rigor—and the onset was gradual; the intestinal follicles were sometimes found swollen, and diarrhœa was present in two-thirds of the cases. It was distinctly infectious, and spread to the attendants.

"I have here brought before you," Dr. Yeo continued, "but a small fragment of the mass of observations which are on record, and upon which was based the view that pneumonia is an infective disease dependent on the presence of a specific pathogenic organism in the body; and that under certain, somewhat rare circumstances of time, place, or season, it may spread by direct and indirect contagion.

"I have thought it best to bring this view of the nature of pneumonia before you, *first of all*, in order that we may the better be able to compare it with the older and more generally accepted views as to the nature of this disease, and see how it is related to them. Probably the most widely accepted view of the nature of pneumonia is that it is a typical local inflammation produced by exposure to cold, and that the accompanying pyrexia is merely symptomatic of the local lesion.

"Another view which, if not quite so widely accepted as the preceding, is certainly quite as authoritatively maintained, is that acute pneumonia is a *general disease*, and the lung inflammation is simply the chief local lesion. The inflammatory process in the lung is the *local* effect of a *general* cause. The usual arguments in support of the latter view are these:—That in well-marked cases the fever does not run parallel with the physical signs of pulmonary inflammation. It frequently precedes them by a considerable interval. It does not coincide with them in degree or duration. High fever often accompanies a small tract of inflammation when it is situated at the apex of a lung instead of at the base. The fever often suddenly subsides long before the local signs show a corresponding improvement in the lung. Moreover, it resembles the *specific fevers* in its typical course—the rapid onset, the sudden defervescence. Finally, the anatomical changes in the lung are not such as can be produced by artificial injury of that organ. . . .

"Of these two views, it will be seen that the one is entirely opposed to the theory which regards pneumonia as a parasitic disease, infective, sometimes contagious, and not infrequently epidemic; whereas the other view gains support from and is quite consistent with the belief in the parasitic nature of this disease. But there is yet another view which merits our attention, viz., that pneumonia is *sometimes* an inflammatory and purely local disease, and *at other times* an infective, general disease. This view has been advocated by Mr. Wynter Blyth.[1] After alluding to some interesting cases of apparent communication of pneumonia mentioned to him by Dr. Christian Budd, of North Tawton, he says, 'In all probability there are *two* forms of pneumonia—one probably arising from cold or a like cause, the other zymotic—and these two forms are at the present time confused together, just as typhus and typhoid were. That such an epidemic form exists, infectious, zymotic, self-propagating, I feel in my own mind convinced.'

"I must own there appears to me to be much that may be said in favour of this *eclectic* view. When we consider what diverse conditions are capable of setting up inflammation and consolidation of the lung, when we consider in what various morbid states secondary pneumonias occur, it is surely not inconsistent to believe that *primary* pneumonia may arise from more than one exciting cause. But even if we admit that pneumonia is caused by exposure to cold, it does not necessarily follow that the *chill* acts directly on the lung; and it is still open to us to believe that the blood is primarily affected, just as it may be in acute rheumatism. But the prevailing want of symmetry in the lung affection would seem to point to the co-operation of some more strictly local influence.

"Those, however, who maintain the unity of pneumonia—and so great an authority as Jurgensen is amongst the number, although, if I understand him aright, he would separate certain so-called typhoid forms as not croupous pneumonia at all, but only secondary lung consolidation dependent on septicæmia—those advocates of the unity of pneumonia, notwithstanding the very varying degrees of intensity with which it appears in different periods, contend that these differences are due to the different degrees of activity or malignancy of the exciting cause, of the

[1] "Stokes, on Diseases of the Chest." New Sydenham Society's Edition, p. 303.
[1] *Lancet*, January 29th, 1881.
[1] *Lancet*. February 25, 1882.
[1] *Lancet*. November 12, 1881.
[1] Berlin. Klin. Wochensch. 1881, 40, 41.
[1] Alison. Archives. Générales de Médecine. Sept. and Oct., 1883.
[1] Deutsch. Arch. f. Klin. Medicin. 1878, xxi., 4. Berlin. Klin. Wochenschr. 1879. 73.

[1] *Lancet*, September, 1878, p. 416.

morbific germ, at different times and in different places;[1] and they urge in support of this view that great changes in the virulency of various pathogenic organisms have been shown under cultivation; that well-recognised infectious diseases, like scarlet fever, appear at different times with very varying degrees of virulency; that the organism characteristic of pneumonia has been found in mild as well as in severe cases; that an extreme virulency has been observed in cases which *post-mortem* examinations have shown to be cases of true croupous pneumonia. For instance, Jurgensen reports a case that ended in eight hours from the initial rigor; and Mendelsohn mentions two cases, one that of a vigorous man, 38 years of age, who died in thirty-four hours, and another case, communicated to him by a friend, that died in twenty-four hours."

Dealing with the ætiology of pneumonia, Dr. Yeo said, that most observers agreed that pneumonia sometimes occurred in connection with insanitary conditions; that, in short, there was what has been named a "pythogenic" pneumonia. But what was the real influence of exposure, of chill, as a cause of this disease? Was it simply a predisposing cause, or was it an exciting cause? That it had a causal relation of some sort to many cases of pneumonia, there seemed to him no reason to doubt; but possibly we had been in the habit of over-rating its influence as a cause. It was notorious that pneumonia often occurred during the prevalence of winds, especially the winds of spring; and not with winds from any particular quarter, for it was found to prevail with south-west winds as frequently, or more so, as with east or north-east winds. Now, in this connection, we had rather overlooked the fact, that winds were carriers of dust as well as conveyers of cold (or rather, abstractors of heat); and that while, on the one hand, they carried away heat from the surface of the body; on the other hand, they gathered up dust of all kinds, and blew all manner of micro-organisms into our air-passages. It had been noticed, again and again, that all depressing agencies might predispose to pneumonia, such as exhaustion from physical fatigue,[1] and depressing emotions; and it might be that exposure to a cold wind acts both as a predisposing cause, by the depression of the normal resisting power it produced by rapid abstraction of heat, and also as an exciting cause, by means of the micro-organisms it blew into our air-passages, especially if the view he had already suggested be correct, *that a paralytic or sub-paralytic condition of the bronchial ciliated epithelium* may in this way be induced.

A French writer, whom he had already quoted, found in the analysis of eighty cases of pneumonia, that physical fatigue was apparently a predisposing cause in a great proportion of them. And he, the speaker, had heard it said, that pneumonia occasionally occurred in public school boys after fatiguing games of football. It would be interesting to have further information on this point.

As regards the treatment of pneumonia, personally he was content to be what, in political language, was called "an opportunist." He believed in no special treatment, but in a rational common-sense management of individual cases. He was entirely opposed to all lowering methods of treatment, which were counter-indicated by the tendency to cardiac asthenia, which the concomitant pyrexia induced; and also by the consideration that those cases that supported lowering measures best, were precisely those cases which did extremely well without any active interference.

There were, however, certain circumstances, certain accidents of the disease, the treatment of which required careful consideration. These were (1) *Excessive dyspnœa*, from overwhelming pulmonary hyperæmia and œdema, in addition to the consolidation. This was the only indication he knew of for bleeding in pneumonia, and its occurrence was exceedingly rare. (2) *Excessive pyrexia*, attended with delirium and danger of rapid cardiac exhaustion. Here the cautious application of cold to the surface might be used with benefit, as advocated by Jurgensen; but we should select our patients very carefully for this mode of treatment. Quinine combined with sulphurous acid merited more frequent use for reducing temperature in low typhoid forms of pneumonia. They should be given from the *commencement* of the illness. (3) *Pain in the side.* He was in the habit of giving 5-grain doses of Dover's powder every five or six hours, in the *earliest* stage of pneumonia, to relieve pain, and he found it had an excellent influence, not only *directly*, in the relief of pain, but *indirectly*, by relieving the distress and anxiety of the patient and procuring calm sleep, and so really sparing his strength and protecting him against exhaustion later on. By relieving the pain in the side, the patient was also enabled to make deeper inspirations, and so to make the best use he could of the breathing surface that was left free to him for aërating his blood. A few leeches applied over the seat of pain was also a valuable expedient. (4) *The tendency to cardiac exhaustion, with sleeplessness and delirium.*—The so-called typhoid symptoms. The free use of alcoholic stimulants was here essential. Many cases of pneumonia required no alcohol; many other cases could only be kept alive by alcohol!

One word on the so-called abortive treatment of pneumonia by aconite. He was not ignorant of the excellent effect of aconite in certain ephemeral pyrexiæ, associated with local inflammations; and he believed it to be a valuable remedy in cases of slight pulmonary congestion with pyrexia, a condition which should be more precisely differentiated and described than it had been in our text-books. But he had no belief in an abortive treatment of acute croupous pneumonia by aconite. A consulting physician in London had told him that he had seen recently three fatal cases of pneumonia in which aconite was being "pushed." He hoped, if there was any advocate of that treatment present, he would forgive him for saying, that it was to him inconceivable how it should ever be thought right to "push" such a drug as aconite in such a disease as pneumonia.

Dr. Yeo concluded his address with some remarks on the work of the Collective Investigation Committee of the British Medical Association.

[1] Mendelsohn, *Zeitschrift fur Klinische Medicin.* 1883.
[1] Alison. *Archives Générales de Médecine*, Sept. and Oct., 1883.

AN EXAMINATION OF THE THEORY OF AËRIAL DISSEMINATION OF SMALL-POX INFECTION.

By MONTAGUE D. MAKUNA,
Late Medical Superintendent of Fulham Small-pox Hospital.

(Continued from page 695).

The Year 1878.

The Registrar-General's Annual Summary for the year contains the following statement:—"Small-pox was fatal to 1,416 persons who, at various ages, died of that disease in London, whereas only 17 died in 19 country towns. This is in spite of the precautions taken in London, where 897 patients died in small-pox hospitals which are freely open to all. No doubt great numbers remained who were treated at their own homes, for the deaths at home were 519, and this implies a great

number of cases. What would be the result of isolating every case it is impossible to say; but it is evident that partial isolation is only partially successful, for we have 1,416 deaths in London from the disease, with five hospitals; whereas in 19 towns, with less hospital provision, there were only 17 deaths from small-pox." To this mortality in private cases Fulham contributed 18, Kensington 11, and Chelsea 4. The Metropolitan Asylums Board Hospitals admitted 4,667 patients, of whom 205 were from Fulham, 140 from Kensington, and 124 from Chelsea. The Highgate Small-pox Hospital had admitted 30 from Fulham, 15 from Kensington, and 8 from Chelsea. The total incidence of small-pox, as known to the Medical Officers of Health, was 180 in Kensington, 266 in Fulham, and 147 in Chelsea, or 592 cases for the three districts. Mr. Power's table accounts for 466 cases, and ignores the rest of the known cases as well as the concealed ones.

January.—Fulham Hospital admitted 15 acute and 63 convalescents. The acute cases were—2 from Fulham, 2 from Kensington, 6 from Camberwell, 2 from St. Giles's, and 3 from Westminster. Highgate Hospital admitted 15 from Fulham, 5 from Kensington, and 1 from Chelsea. The weekly number of cases under treatment in Fulham Hospital, beginning the 29th December, 1877, were 21, 32, 37, and 52. The Medical Officers of Health for Fulham, Kensington, and Chelsea reported 21, 8, and 7 cases respectively.

Fulham Cases.—(1) One from 13, Maxwell Road, ½ mile R., to Highgate Hospital, on the 4th. (2) One from 32, Victoria Road, ½ mile R., to Highgate Hospital, on the 13th. (3) One from 20, Peterborough Road, ½ mile R., to Highgate Hospital, on the 17th. (4 and 5) Two from 2, Harriet Street, ½ mile R., on the 22nd. (6) A labourer from 40, Hilmer Street, ¾ mile R., to Fulham Hospital, on the 6th. (7 to 17) Eleven from O. S. A., viz., 2 each from Rowan Road and Dalling Road; and 1 each from Redmore Road, Goodson Road, Brook Street, St. Peter's Square, Rose Gate, John's Road, and Southerton Road.

Kensington Cases.—(1) A disinfecting porter in the service of Paddington Vestry, from 66, Ifield Road, C. C., on the 26th, to Fulham Hospital. He took it while disinfecting articles with small-pox infection. (2) One from 82, Cromwell Road, 1 mile R., to Highgate Hospital, on the 25th. (3 to 7) Five from O. S. A., viz., 2 from Westbourne Grove, and 1 each from Sunbrook Road, Clarendon Mews, and Hunt Street.

One Chelsea case was from Keppel Street, O. S. A.

Fulham Small-pox Hospital was closed to acute cases about the middle of October, 1877, and re-opened for acute cases on the 25th January, 1878. The history of the above given cases clearly demonstrates that the disease was undergoing recrudescence in the Special Area when Fulham Hospital was closed, and the foci of infection were multiplying. Thus in ignoring the admission of fifteen cases to Highgate Hospital, Mr. Power miscalculated the time and incidence of the disease.

February.—Fulham Hospital admitted 73 acute cases and 116 convalescents. The acute cases were—13 from Fulham, 9 from Kensington, 6 from Chelsea, 6 from St. Giles's, 8 from Camberwell, 5 from Westminster, 7 from Wandsworth, 8 from Paddington, 7 from St. George s, and 4 from Strand. Highgate Hospital admitted 14 from Fulham, and none from Kensington and Chelsea. According to the Medical Officers of Health, the monthly incidence of the disease was 39 in Fulham, 10 in Kensington, and 7 in Chelsea. The weekly number of cases under treatment in Fulham Hospital were 72, 100, 108, and 166.

Fulham Cases.—(1) A ward servant of the Fulham Hospital was taken ill and entered as a Fulham case on the 15th. (2) One from 3, Garden Cottages, C. C., to Highgate Hospital, on the 19th. (3) One from 9, Peterborough Road, ½ mile R., on the 2nd. Infected street. (4 and 5) Two from 58, Victoria Road, ½ mile R., to Fulham Hospital, one in a neglected and convalescent state on the 3rd, the other on the 13th. From a concealed case. Infected street. (6 and 7) Two from 18, Maxwell Road, ½ mile R., to Fulham Hospital on the 6th and 8th. Infected street. (8) One from 12, Richmond Place, ½ mile R., to Highgate Hospital, on the 13th. (9 and 10) Two from Waterford Road, ½ mile R., to Highgate Hospital, on the 15th and 22nd. (11) One from 28, Stanley Road, ½ mile R., on the 20th. (12) One from 10, Hilmer Street, ¾ mile R., to Fulham Hospital, on the 4th. Infected street. (13 and 14) Two from 21, May Street, ¾ mile R., to Fulham Hospital. Infected by the non-resident hospital staff. (15) One from 10, Dawson Street, 1 mile R., on the 21st. (16 to 27) Twelve from O. S. A., viz., two from 10, Hanover Cottages (infected house), and one each from Brook Street (infected), Trafalgar Street, Simpson's Place (a neglected case), Paradise Row, Munden Street (infected), Raynham Road (infected), Waterloo Street, Rowan Road (infected), Dalling Road (infected), and Black's Road.

Kensington Cases.—(1) A female from 93, Ifield Road, C. C., to Fulham Hospital, on the 20th. Her daughter from the same house, an imported case, previous year. The latter was now a ward servant in Fulham Hospital. (2) A dressmaker from 172, Fulham Road, ½ mile R., on the 13th. By visiting her mother in Lambeth, who was removed to Stockwell Hospital. (3) A cook from 36, Warwick Road, ½ mile R., on the 21st. (4) A draper's assistant from 44, Earl's Court Road, ¾ mile R., on the 16th. (5 to 9) Five from O. S. A., viz., 1 each from Portland Road, Fowell Street, Treverton Street, Ladbroke Grove Road, and Brunswick Mews.

Chelsea Cases.—Six from O. S. A., viz., 2 from Cheyne Row, and 1 each from Pond Place, Pavilion Road, Sloane Street, and King's Road. Thus it will be observed that in January and February there were 27 cases in the Special Area, of which 21 were from Fulham, 6 from Kensington and none from Chelsea. I have pointed out this unequal distribution of cases in the three districts in the history of the previous year, and yet Mr. Power accounts for some of them by his method of calculation as from the three districts equally.

March.—Fulham Hospital admitted 123 acute cases and 125 convalescents. Of the acute cases, 37 were from Fulham, 16 from Kensington, 29 from Chelsea, 17 from Wandsworth, 7 from St. George's, 6 from Strand, 5 from St. Giles's, 4 from Westminster, and 2 from Paddington. Highgate Hospital admitted 1 from Fulham, 2 from Kensington, and 1 from Chelsea. The Medical Officers of Health for Fulham, Kensington, and Chelsea reported 38, 16, and 31 cases respectively. The weekly number of cases under treatment at Fulham Hospital were 202, 234, 207, 206, and 203. At this time the *West London Observer* contained much correspondence and many articles regarding concealment of cases, want of sanitary measures, halting of ambulances near public-houses, visits of the hospital staff in the vicinity of the hospital, actions of the qualified and unqualified small-pox curers. The magistrate was several times applied to, to isolate the cases in hospitals. At this time also a firm of builders, who were erecting streets in the immediate vicinity of the hospital, failed in their extensive speculations outside London; and the agitators against Fulham Hospital and the prosecutors of the Hampstead Hospital found in it an argument that the depreciation of property and building failures were due to Fulham Hospital. I prepared a statement for the Managing Committee of the hospital, to answer certain allegations made against the hospital by some members of the Kensington Vestry;

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but they refused to forward it to Dr. Dudfield, on the ground that it was impolitic to give him information which might be used against the managers in the court. In answer to my enquiries, one medical man wrote to me that he had had cases of small-pox in Ifield Road and Finborough Road since October, 1877; and he attributed the disease to non-isolation of convalescents at home, and visiting of the hospital staff in that neighbourhood. Other medical men stated they had cases before the hospital was re-opened and subsequently, but they refused to give particulars. I had come to know that occupiers of small shops in Ifield Road, Fulham Road, and adjoining streets had cases at home, and that the persons attending the sick also served at the counters. When the cases were successfully concealed, they left lodgings infected and carried infection with them.

Fulham Cases.—(1) One from 17, Farm Lane, C. C., to Fulham Hospital, on the 7th. Infected street. (2) One from 1, Garden Cottages, C. C., to Fulham Hospital, on the 15th. (3) One from 16, Melroth Place, ½ mile R., to Fulham Hospital, on the 9th. (4) A cab-driver from 12, Richmond Place, ½ mile R., on the 10th. (5 to 8) Three from 14, Stamford Road, ½ mile R., 1 on the 11th, and 2 on the 27th; 1 from No. 11, on the 28th. (9) A laundress from 19, Moor Park Terrace, ½ mile R., on the 28th. (10) One from 20, Mund Street, ¾ mile R., to Fulham Hospital, on the 1st. (11) One from 13, Bramber Road, ¾ mile R., to Fulham Hospital, on the 2nd. (12) One from 16, Star Lane, ¾ mile R., to Fulham Hospital, on the 5th. Concealed cases in the street. (13) A homeless man, removed from his sister's house in North End Road, ¾ mile R., on the 16th. (14) One from 5, King's Terrace, ¾ mile R., on the 24th. (15) One from 3, Cambrian Terrace, ¾ mile R., on the 30th. (16) One from 3, Thorpe Terrace, 1 mile R., on the 11th. (17 to 38) Twenty-two cases, O. S. A., viz., 1 each from Paradise Row, Raynham Road, York Road, Redmore Terrace, Church Lane, Simpson's Place, Bullow Road, King Street, Felgate Mews, Hanover Cottages, Anne's Place, Latimer Road, Gillard's Place, Campbell Street, Adelaide Terrace, Bridge Street, Chancellor Street, Paradise Cottages, Brook Green Lane, Dalling Road, and 2 from Great George Street. Most of the houses and streets were previously infected.

Kensington Cases.—(1) One from 11, North Street, C. C., to Fulham Hospital, on the 9th. (2) One from 4, South Street, C. C., to Fulham Hospital, on the 31st. (3) One from 29, Ifield Road, C. C., to Fulham Hospital, on the 7th. (4) A housemaid from 18, Bolton Gardens, ½ mile R., on the 8th. (5) A domestic from 26, Cathcart Road, ½ mile R., on the 19th. Infected by a case treated at home. (6) One from 12, Ashley Cottages, ¾ mile R., by visiting her parents in Faroe Road. (7) A page from 9, Bina Gardens, ¾ mile R., on the 19th. (8) One from 90, Warwick Gardens, 1 mile R., on the 26th. (9) A domestic from Kensington Infirmary, 1 mile R., on the 30th. (10 to 18) Nine from O. S. A., viz., 3 from 2, Silchester Gardens, and 1 each from Peel Street, Norland Terrace, Pennant Mews, Portobello Road, Queen's Gate, and High Street, Notting Hill.

Chelsea Cases.—(1) One from 16, Maude Grove, ½ mile R., to Fulham Hospital, on the 14th. (2) A student from St. Mark's College, ½ mile R., to Highgate Hospital, on the 26th. (3 and 4) Two from 58, Slaidburn Street, ¾ mile R., to Fulham Hospital, on the 10th and 11th. They took the disease from No. 27. (5 and 6) One each from 43 and 30, Slaidburn Street, ¾ mile R., to Fulham Hospital, on the 26th and 28th. Many infected houses in the street. (7) One from 4, Mill Terrace, ¾ mile R., to Fulham Hospital, on the 8th. (8) One from 24, Riley Street, ¾ mile R., to Fulham Hospital, on the 14th. (9) A domestic from 37, Gertrude Street, ¾ mile R., to Fulham Hospital, on the 27th. (10) One from 9, Little Camera Street, ¾ mile R., to Fulham Hospital, on the 29th. (11 and 12) A cook from 96, and a shopwoman from 44, Beaufort Street, 1 mile R., to Fulham Hospital on the 23rd and 27th. (13 to 30) Eighteen from O. S. A., viz., 3 each from Francis Street and Paradise Walk, 2 from White Lion Street and Danver's Buildings and 1 each from Cole Street, North Street, Hasker Street, Charles Street, Keppel Street, Christchurch Street, Benson Terrace, and Caversham Street.

April.—Fulham Hospital admitted 203 acute cases, and 40 convalescents. The acute cases were 56 from Fulham, 49 from Kensington, 23 from Chelsea, 25 from Wandsworth, 21 from St. George's, 14 from St. Giles's, 9 from Paddington, 3 from Strand, and 3 from Westminster. Highgate Hospital admitted 6 from Kensington, and 2 from Chelsea. Dr. Dudfield reported 57 fresh cases in Kensington during the four weeks ending 1st May, of which 10 were treated at home. The Medical Officer for Fulham reported 65 fresh cases of which 8 were treated at home. The Medical Officer of Health for Chelsea reported 28 fresh cases. The weekly number of cases under treatment at Fulham Hospital during four weeks ending 27th April, were 188, 204, 246, and 202. It was stated by several medical men that the westerly winds carried the infection from the hospital area and spread the disease in the locality. Dr. Dudfield investigated the question and found that the majority of the cases were reported during the second fortnight of the month, and they might have been infected when the winds were principally easterly or south-westerly. Another stated that it was due to visitation of the sick by their friends; another, that it was due to the visits paid by the members of the hospital staff to their friends; another to ambulances. Dr. Dudfield believed that the spread was due to concealment of cases, premature exposure of convalescents, infected clothing of attendants on sick at home, laundries, neglect of vaccination, re-vaccination, &c. A striking case was reported to him by a medical man, who, one Saturday night, saw a laundress with the disease well out on her. That very day she had sent home the washing of her customers dried in her room. Another laundress fell ill and her husband nursed her, the business being conducted as usual. There were sixteen lodgers in the house who all left, with the probable result of sowing the disease broadcast. The husband fell ill subsequently and was sent to the hospital.

Fulham Cases.—(1) One from 23, Seagrove Road, C. C., to Fulham Hospital, on the 28th. (2) One from 54, Hildyard Road, C. C., to Fulham Hospital, on the 11th. (3 and 4) One from 14 (an infected house), and 1 from 32, Stamford Road, ½ mile R., on the 16th and 20th respectively. (5 and 6) A child from 19, and another from 20, Moor Park Terrace, ½ mile R., on the 7th and 29th respectively. (7 to 9) Three children from 2, Golding's Buildings, ½ mile R., 1 on the 10th and 2 on the 25th. (10 and 11) A dressmaker from 12 (an infected house), and another from 5, Richmond Place, ½ mile R., on the 20th and 2nd. (12 and 13) Two from 4, Ashton Road, ½ mile R., on the 10th and 19th. (14) One from 5, Waterford Road, ½ mile R., on the 11th. (15 to 18) Four from May Street, ¾ mile R. (an infected street); a wheelwright from 4, on the 11th; a painter from 40, on the 11th; a carpenter from 43, on the 14th, and his wife, on the 29th. (19) One from 45, Rylston Road, ¾ mile R., on the 9th. (20) One from 1, Orchard Street, ¾ mile R., on the 11th. (21) One from 3, New King's Road, ¾ mile R., on the 14th. (22) One from 28. Dieppe Street, ¾ mile R., on the 22nd. (23 to 25) Three from 14, Field Road, 1 mile R. (infected street); 1 on the 18th, and 2 on the 30th. (26) One from 2, Edwin Terrace, 1 mile R., on the 16th. (27) One from 9, Wyatt's Terrace, 1 mile R. (infected street), on the

27th. (28) One from 6, John's Street, 1 mile R., on the 29th. (29 to 56) Twenty-eight from O. S. A., viz., 5 from 5, Blythe Terrace, 5 from two houses in Great George Street; 2 each from Bridge Street, South Street; 1 each from Brunswick Cottages, Cambridge Road, Henrietta Place, Stow Road, Queen Street, Dungannon Terrace, Westbourne Park Road, Hanover Cottages, Distillery Lane, Trafalgar Street, Faroe Road, Devonshire Street, Serf's Cottage, and Felgate Mews.

Kensington Cases.—(1 to 7) Seven from Ifield Road, C. C., viz., A child and a bricklayer from 77, on the 17th and 19th, infected in Fulham; a paper-stainer's boy from 28, on the 18th; 1 from 91, on the 18th; a charwoman working in the street, from 106, on the 19th; a woman, only a day in the house, from 110, having changed lodgings from Lambeth, about the 20th; a laundress from 112, on the 16th. (8) A housemaid from 178, Finborough Road, C. C., on the 17th, from her mother's house in Stamford Terrace. (9) A domestic from 7, South Street, C. C., on the 21st, she was sent home ill from the place of her service, outside the parish. (10 and 11) A labourer from 6, and a coach-painter from 7, North Street, C. C., on the 3rd and 5th. (12) A schoolboy from 20, St. Mark's Road, C. C., on the 17th. (13 to 16) Four from Richmond Road, ½ mile R.; a servant from 58, on the 13th; a potman from Richmond Arms, on the 18th, he took it from an ambulance driver; a domestic from 96, on the 20th; a child from 73, on the 22nd. (17 to 19) Three from Redcliffe Gardens, ½ mile R.; a cook from 52, on the 16th; a housemaid from 34, on the 18th; a cook from 8, on the 29th. (20) One from 24, Redcliffe Mews, ½ mile R., on the 18th. (21 and 22) A female from 26, and a child from 14, Seymour Place, ½ mile R., on the 24th and 16th. (23 and 24) A housekeeper from 53, and another from 6, Hollywood Road, ½ mile R., on the 19th and 18th. (25) A barman from 214, Fulham Road, ½ mile R., on the 18th. (26 to 28) Three from Kempsford Gardens, ½ mile R.; 1 from 27, on the 15th, from a case treated at home; a domestic from 33, on the 22nd, engaged to marry an hospital porter; a clerk from 12, on the 25th, recently changed his lodgings to the above address. (29) A servant from 59, Eardley Crescent, ½ mile R., on the 19th. (30) A servant from 6, Warwick Road, ½ mile R., on the 19th. (31) A servant from 21, Earl's Court Square, ½ mile R., on the 18th, from a sempstress engaged during the day, who had two children ill at Fulham. (32) One from 179, Earl's Court Road, ½ mile R., on the 19th. (33) A child from 12, Child Street, ¾ mile R., on the 18th (infected street). (34) One from 3, Clifton Place, ¾ mile R., on the 18th. (35) A butler from 20, Collingham Road, ¾ mile R., on the 20th. (36) One from 11, Walgrave Road, ¾ mile R., on the 24th. (37) One from 18, Queensbury Mews, 1 mile R., on the 1st. (38) One from 9, Pembroke Place, 1 mile R., on the 23rd. (39 to 55) Seventeen from O. S. A., viz., 2 from St. Evan's Road, 1 each from Portland Road, Adia Terrace, Essex Villas, Catherine Road, Norfolk Terrace, South End, Peel Street, Portland Cottages, St. Clement's Road, Newcombe Street, Lonsdale Road, Bedford Gardens, Richmond Road, Ladbroke Road, and Talbot Road,

Chelsea Cases.—(1 and 2) One each from 40 and 41, Slaidburn Street, ½ mile R., on the 10th and 24th. An old haunt of infection. (3) One from Milton House, Maude Grove, ½ mile R., on the 21st. (4) One from 23, Lot's Road, ½ mile R., to Fulham Hospital, on the 27th. (5) One from 43, Lot's Road, ½ mile R., to Highgate Hospital, on the 2nd. (6 and 7) One from 37, and a laundress from 33, Luna Street, ¾ mile R., on the 3rd and 18th. (8) One from 9, Little Camera Street, ¾ mile R., on the 16th. (9) One from 8, Foundry Place, ¾ mile R., on the 19th. (10) One from 333, Fulham Road, ¾ mile R., on the 22nd. (11) One from The Rectory, Church Street, 1 mile R., on the 16th. (12) One from 72, Camera Square, 1 mile R., on the 17th. (13) One from 2, Carlyle Square, 1 mile R., on the 19th. (14) One from 4, Alfred Cottages, 1 mile R., on the 20th. (15 to 25) Eleven from O. S. A., viz.:—1 each from Shewon Terrace, Christchurch Street, Park Walk, Marlborough Road, Britton Street, Francis Street, Flood Street, Rawling's Street, Langston Street, Oakley Crescent, and King's Road. Most of the Kensington cases in S. A. were servants, and Fulham cases were caused by concealed cases.

May.—Fulham Hospital admitted 172 acute cases, viz.:—49 from Fulham, 35 from Kensington, 34 from Chelsea, 20 from Wandsworth, 17 from St. George's, 7 from Paddington, 4 from St. Giles's, 2 from Strand, and 2 from Westminster. Highgate Hospital admitted 1 from Fulham, 1 from Kensington, and 4 from Chelsea. Dr. Dudfield reported 55 fresh cases in Kensington, of which 20 were treated at home. The Medical Officer of Health reported 65 cases during the month, Fulham parish contributing 46, of which 16 were treated at home; the remaining 19 occurred in Hammersmith. The Chelsea Medical Officer of Health reported 44 fresh cases. The local papers were filled with information on concealment of cases, especially in the district of North End and May Street, and a correspondent wrote, "If the medical practitioners of this and neighbouring districts would (instead of indulging, as it is to be feared more than one of them does, in either selfishness or sentimentality, or a combination of both) make it their duty in the interest of the community at large, which is justly entitled to consideration, to report all cases to health authorities—they at least would be clear when the question is asked, with whom lies the responsibility of such a reprehensible state of things?" Dr. Dudfield was asked by the Kensington Vestry to answer certain allegations against Fulham Hospital. He made a special report on the subject, and gave the following history of some of the cases in the immediate vicinity of the hospital:—

"It will have been noticed that the largest number of cases have occurred in Ifield Road, a long and very populous (not to say over-crowded) street, where there have been 15 cases in 11 houses. One of the first of the cases was that of a man who refused to go to the hospital and who died on the 19th April, after eight days' illness. His widow then sickened and passed through her illness at home. Within a few doors from this house there have been several other single cases which were removed to the hospital. In another house a man passed through his illness, having refused to go to the hospital. In another house three sisters were successively attacked after the customary interval for incubation, the family declining our offers, on two occasions, to disinfect the rooms, &c., having, as they said, carried out some directions of their medical attendant which they deemed sufficient. After the occurrence of the third case we insisted on doing the work, and since then there has not been any further case.

"At Finborough Road and at Adrian Terrace, which are intimately connected with Ifield Road, cases have occurred, and in each road there has been a death from small-pox.

"At Kempsford Gardens a married woman was nursed at home by her husband, who afterwards took the disease, and was sent to hospital. In this street there have been four other cases in as many houses.

"From South Street, St. Mark's, a woman was removed on the third day of the eruption, and it is stated that during her illness the linen of families was washed and dried in the sick-room. In this and contiguous streets eight other cases have occurred in March, April, and May.

"At Thistle Grove a case occurred, and was con-

cealed until two other cases happened, and then the people were glad to send the new cases to hospital.

"At Redcliffe Street three children were ill in one house. No doctor was called in, and nothing was known of the occurrence until after the children had recovered."

The weekly number of cases under treatment during the five weeks ending 1st June, was 198, 199, 192, 182, and 165.

Fulham Cases.—(1) A gardener from 70, Farm Lane, C. C., on the 11th, to Fulham Hospital, by visiting an ill friend in the same street. (2) One from 14, North Street, C. C., to Fulham Hospital, on the 15th. (3) One from 10, Rickett Street, C. C., to Fulham Hospital, on the 24th. (4) One from 26, Stamford Road, ½ mile R., to Fulham Hospital, on the 6th. (5) One from Prince's Mews, ½ mile R., to Fulham Hospital, on the 13th. (6) One from 18, Bective Road, ½ mile R., to Fulham Hospital, on the 22nd. (7) One from 23, Lot's Road, ½ mile R., to Fulham Hospital, on the 26th. (8 and 9) One from 1, and 1 from 8, Richmond Place, ½ mile R., on the 14th and 21st. Infected houses. (10 and 11) Two from St. John's Place, ½ mile R., on the 14th and 15th. A case from the same house last month. (12 and 13) Father and son from May Cottage, May Street, ¾ mile R., on the 6th and 22nd. Many concealed cases in the street. (14 and 15) Two from 1, Star Lane, ¾ mile R., on the 2nd and 30th. Infected Street (16 and 17) One from 11, and one from 17, Dieppe Street, ¾ mile R., to Fulham Hospital, on the 3rd and 14th. (18) One from 8, Little Ebenezer Place, ¾ mile R., on the 4th. (19) One from 1, Simmons' Cottages, ¾ mile R., on the 5th. (20) One from 20, King's Terrace, ¾ mile R., on the 6th. (21) One from 20, Ansford Cottages, ¾ mile R., on the 10th. (22) One from Normandy Cottage, ¾ mile R., on the 19th. (23) One from 9, Bramber Road, ¾ mile R., on the 31st. (24) A baby from 19, Field Road, 1 mile R., on the 6th. Infected House. (25) One from 24, Grove Terrace, 1 mile R., on the 4th. (26) One from the "The Three Kings," 1 mile R., on the 30th. (27) One from 5, Field Terrace, 1 mile R., on the 30th. (28 to 50) Twenty-three from O. A. S., viz., 3 from Felgate Mews, 2 each from Nasmythe Street, Hanover Cottages, Raynham Road, and Devonport Road; 1 each from Devonshire Street, "Red Cow," Model Buildings, Elm Place, Melina Road, Trafalgar Street, Raynham Road, Morby's Buildings, Masboro' Road, The Mall, Horace Mews, Melbourne Terrace, and Elrick Street.

Kensington Cases.—(1 to 7) Seven from Ifield Road, C. C.; a child from 60, on the 1st; 2 laundresses from 112, on the 5th and 18th; a stableman from 110, on the 6th; a bricklayer from 40, on the 7th; a boy from 21, on the 15th; and a girl from 34, on the 19th. (8) A domestic from 137, Finborough Road, ½ mile R., on the 14th. (9) One from 176, Earl's Court Road, ½ mile R., on the 29th. (10) A child from 8, Penywern Road (a school), ½ mile R., on the 8th. (11 and 12) One from 21, and a child from 41, Kempsford Gardens, ½ mile R., on the 17th; small-pox in neighbouring houses, the latter caught it from washing in a laundry. (13) A laundress from 54, Seymour Place, ½ mile R., on the 24th. (14) One from 15, Eardley Crescent, ½ mile R., on the 23rd. (15 and 16) Two boys from 38, Thistle Grove, ¾ mile R., on the 2nd and 3rd, from a concealed case. (17) A servant from 274, Fulham Road, ¾ mile R., on the 17th. (18) One from 8, Gledhow Terrace, ¾ mile R., on the 9th. (19) One from 38, Courtfield Gardens, ¾ mile R., on the 25th. (20) One from 53, Onslow Gardens, 1 mile R., on the 7th. (21 to 36) Sixteen from O. S. A., viz., 5 children from 13, Gadsden Mews; 1 each from Chelsea Grove, South End, Bosworth Road, Bramley Road, Elvaston Mews, Hazlewood Crescent, Walmer Road, Holland Road, Dartmoor Street, Orchard Street, and Tavistock Crescent.

Chelsea Cases.—(1) One from Cottage Laundry, Limerston Street, ½ mile R., on the 18th. (2 and 3) Two students from St. Mark's College, ½ mile R., to Highgate Hospital, on the 11th and 13th. Infected house. (4) One from 39, Seaton Street, ¾ mile R., on the 6th. (5 and 6) Two from 20, Callow Street, ¾ mile R., on the 17th and 27th. (7) One from 56, Park Walk, ¾ mile R., on the 19th. (8 to 10) Three children from 56, Beaufort Street, 1 mile R., to Fulham Hospital, on 8th, 18th, and 21st. (11 and 12) One from 31, and the other from 98, Church Street, 1 mile R., on the 12th and 20th. (13) One from 37, Paulton Square, 1 mile R., on the 18th (14) One from 7, Arthur Street, 1 mile R., on the 22nd. (15 to 38) Twenty-four from O. S. A., viz., 4 from 9, George's Place, 2 from Walton Street and Keppel Street; 1 each from Flood Street, Oakley Crescent, Upper Cheyne Row, Francis Street, Moss Place, Badcock Street, Redsdale Street, Stratham Place, St. Hilda Terrace, Langston Street, Exeter Place, Lincoln Street, College Place, High Street, Danver Street, and Milner Street. It is noticeable that most of the cases in C. C. seem in Ifield Road. By what law this selection of the street to the exclusion of others can be accounted for is not evident to me. Another point is, that the Special Area of Chelsea has suffered the least, because the haunts of infection are away from the hospital.

June.—Fulham Hospital admitted 88 cases, viz., 20 from Fulham, 18 from Kensington, 16 from Chelsea, 8 from St. George's, 15 from Wandsworth, 6 from Paddington, 2 from St. Giles's, 2, from Westminster, and 1 from Strand. Highgate Hospital admitted 3 from Kensington. Dr. Dudfield reported 23 cases in Kensington during four weeks ending June 26th. The Medical Officer of Fulham reported 20 fresh cases, of which 17 occurred in Fulham parish. The Medical Officer of Health for Chelsea reported 18 fresh cases. The weekly number of cases under treatment at Fulham Hospital during four weeks ending June 29th, were 147, 141, 133, and 121.

Fulham Cases.—(1) A hospital nurse was taken ill, and entered as a case on the 28th. (2) One from 4, Roxby Place, C. C., on the 13th, from concealed cases. (3) One from 8, Richmond Place, ½ mile R., on the 7th. Infected house. (4 to 6) Three from Stamford Road, ½ mile R., 2 from 11, on the 5th, and 1 from 37, on the 7th. (7) One from Cambridge Terrace, ½ mile R., on the 18th. (8) One from 93, Rylstone Road, ¾ mile R., on the 5th. (9 to 11) Three from Estcourt Road, ¾ mile R., a child from 13 (a baby form), on the 11th, 1 from 52, on the 14th, and 1 from 16, on the 22nd. (12) One from 9, Pownal Road, ¾ mile R., on the 13th. (13) One from 17, William Street, ¾ mile R., on the 26th. (14) One from 94, May Street, ¾ mile R., on the 23rd. (15) One from Field Terrace, 1 mile R., on the 17th. (16 to 20) Five from O. S. A., viz., 1 each from The Grove, Chelmsford Street, Dungannon Terrace, Overton Road, and Queen's Place.

Kensington Cases.—(1) One from 7, Ifield Road, C. C., on the 13th. (2 and 3) Two from Finborough Road, ½ mile R., 1 from 81, on the 10th, she came to live here from Bermondsey on the 6th; a nurse from 144, on the 21st. (4) A domestic from 12, Bolton Gardens, ½ mile R.; she took it from her mother's house in Fulham. (5) A domestic from 26, Onslow Square, 1 mile R., on the 18th. (6) A boy from 1, Merton Road, 1 mile R., on the 12th. (7 to 21) Fifteen from O. S. A., viz., 2 each from Dartmoor Road, Bomore Road; 1 each from Kensington Place, Tavistock Crescent (infected house), Absolom Road, Yeoman's Row, Radley Mews, Phillimore Mews, Charlesville Road, Bosworth Road, Moscow Road, Kensington Dispensary, and Prince's Gate.

Chelsea Cases.—(1 and 2) Two brothers from 25, Lot's Road, ½ mile R., on the 7th and 12th. Small-pox

in the next house. (3) One from 20, Callow Street, ¾ mile R., on the 17th. Infected house. (4) One from 39, Luna Street, ¾ mile R., on the 20th. (5) One from 55, Seaton Street, ¾ mile R., on the 14th. (6 to 16) Eleven from O. S. A., viz., two each from Guthrie Street, North Street, Elm Park Terrace, Caledonian Road; and one each from York Mews, Danver's Buildings, and Ives Street. Most of these houses were infected. The local papers contained accounts of many concealed cases in Fulham, and the spread of the disease from two public-houses, the "Three Kings," and the "Rose and Crown." It was stated that many families stricken with small-pox in the North End, left the houses infected, and others who followed them took the disease.

July.—Fulham Hospital admitted 31 acute cases, viz., 12 from Fulham, 5 from Kensington, 4 from Chelsea, 5 from St. George's, 2 from Paddington, 2 from Westminster, and 1 from Wandsworth. The weekly number of cases under treatment at Fulham Hospital during the four weeks ending 27th July, was 98, 76, 72, and 56.

Fulham Cases.—(1) One from 25, Seagrove Road, C. C., to Fulham Hospital, on the 10th. An infected house. (2 and 3) One from 10, and another from 4, Rickett Street, C. C., on the 24th and 22nd. Infected houses and concealed cases. (4) One from 8, Farm Lane, C. C., on the 19th. Infected street. (5) One from 18, Stamford Road, ½ mile R., on the 4th. Infected street. (6) One from 1, Jackson's Place, ½ mile R., on the 15th. (7) One from 19, Prince's Terrace, ½ mile R., on the 18th. (8 to 10) Three sisters from 34, Pownal Road, ¾ mile R., two on the 5th, and the other on the 19th. (11) One from 11, Crown Street, ¾ mile R., on the 16th. (12) One from 5, Field Terrace, 1 mile R., on the 8th. Infected street.

Kensington Cases.—(1) A nurse from 55, Earl's Court Square, ½ mile R., on the 7th. (2) One from 12, Merton Road, 1 mile R., on the 17th. (3 to 5) Three from O. S. A., viz., 1 each from Argyll Road, Dartmoor Street, and Duke's Lane.

Chelsea Cases.—(1) One from 20, Gunter Grove, ½ mile R., on the 23rd. (2 to 4) Three from O. S. A., viz., 1 each from Radnor Street, Lower George Street, and North Street.

August.—Fulham Hospital admitted 8 acute cases, viz., 1 from Fulham, 4 from St. George's, 2 from Westminster, and 1 from Wandsworth. The weekly number of cases under treatment during five weeks ending 31st August, were 45, 40, 33, 22, and 16. The Fulham case was from 32, Peterborough Road, ½ mile R., on the 11th.

September.—Fulham Hospital admitted 3 acute cases, viz., 2 from St. George's, and 1 from 2, Shalcombe Street, ¾ mile R., on the 26th. A Chelsea case.

October.—Fulham Hospital admitted 7 acute cases: 1 from 8, Rear Gate, ½ mile R., on the 30th, a Fulham case; 2 from 2, Shalcombe Street, Chelsea, ¾ mile R., on the 9th, an infected house; and 4 from other districts.

November.—Fulham Hospital admitted 18 acute cases, viz., 2 from Fulham, 3 from Chelsea, 1 from Kensington, O. S. A., and 12 from other parishes. The Fulham cases were—1 each from 20, Moor Park Terrace, and 24, Waterford Road, ½ mile R., on the 17th and 27th. The Chelsea cases were 2 from 17, Slaidburn Street, ½ mile R., on the 6th (infected house), and 1 from 25, Limerston Street, ¾ mile R., on the 7th. Infected house.

December.—Fulham Hospital admitted 19 acute cases, viz., 6 from Fulham, and 13 from other parishes.

Fulham Cases.—(1) One from 3, Garden Row, C. C., on the 27th. (2) One from 24, Waterford Road, ½ mile R., on the 10th Infected house. (3) A baby from "Norfolk Arms," ¾ mile R., on the 29th. (4) A baby from 69, Rylstone Road, ¾ mile R., on the 31st. (5) One from 6, Caroline Place, 1 mile R., on the 27th. (6) One from 5, Hatfield Street, 1 mile R., on the 27th.

Thus closed the year 1878, in which much damage in the S. A. of Fulham had been caused; many houses were left infected, and new cases cropped up at the end of the year to serve as foci for fresh outbreaks during the following year.

MIDWIFERY IN SOUTH AFRICA.

By CHARLES JAMES EGAN, B.A., Tc.D., M.R.C.S., Eng., L.K.Q.C.P., Irel.

SOME years since I contributed to this journal a paper on "Midwifery in Kaffraria, South Africa" (*Medical Times and Gazette*, November 25th, 1871), in which I gave a statistical table of 400 cases. I now send a report of 600 further cases attended by me since that time:—

TABLE I.

Nature of Case.	Primiparæ.	Multiparæ.	Total.	Deaths of Mothers. Multiparæ.	Deaths of Mothers. Primiparæ.
Natural	91	333	424	—	—
Premature	6	30	36	4	—
Tedious	8	6	14	—	—
Twins	3	6	9	—	—
Breech...	1	3	4	—	—
Version	4	20	24	—	—
Forceps	23	11	34	—	—
Craniotomy	—	1	1	1	—
Induction premature labour	—	1	1	—	—
Partial placenta prævia ...	1	2	3	—	—
Placenta prævia	1	3	4	—	—
Flooding	6	14	20	—	—
Convulsions	1	1	2	—	1
Puerperal mania	2	—	2	—	—
Adherent Placenta... ...	3	7	10	—	—
Hydrops amnii	—	5	5	—	—
Phlegmasia dolens	1	3	4	—	—
Peritonitis	—	1	1	1	—
Metritis	1	3	4	—	—
Totals	152	450	602	6	1

TABLE II.

No. of Cases.		No. of Children.	
Primiparæ	152	Males	333
Multiparæ	450	Females...	287
Total	602	Total	620

I have, as accurately as possible, noted the lengths of the first and second stages of labour in these cases, and have compiled the following tables:—

TABLE III.

MALES.	Primiparæ.	Multiparæ.
No. of births	86	237
Length of 1st Stage	12h 30m	6h
Length of 2nd Stage	1h 30m	42m
Length of both Stages	14h	6h 40m

Average of whole number, both Primiparæ and Multiparæ.

No. of cases	323
Length of 1st Stage	7h 40m
Length of 2nd Stage	50m
Length of both Stages	8h 40m

TABLE IV.

FEMALES.	Primiparæ.	Multiparæ.
No. of cases	66	213
Length of 1st Stage	11h 40m	6h 36m
Length of 2nd Stage	1h 20m	38m
Length of both Stages	12h 21m	7h 15m

Average of whole number, both Primiparæ and Multiparæ.

No. of cases	279
Length of 1st Stage	7h 36m
Length of 2nd Stage	1h
Length of both Stages	8h 24m

TABLE V.

Average of the whole series, Male and Female.

No. of cases	602
Length of 1st Stage	7h 40m
Length of 2nd Stage	50m
Length of both Stages	8h 30m

The statistics of this series of cases will be found to bear a great similarity to those previously published by me. The length of the labour is found to be somewhat shorter—in the first series it was found to be about nine hours, in this one eight hours and a half. This difference may perhaps be accounted for by the more frequent use of forceps, as I do not allow cases to remain unassisted so long now as I formerly did. The percentage of forceps cases in the first series was 4·5, in this series 5·6. And I now consider it is much better practice to use forceps early, even in cases that you feel sure would be delivered without their use, but when of necessity the second stage must be much prolonged.

Cross births, requiring turning, amounted to 4·5 per cent. in the first series, in this series to 4·0 per cent. In a paper published in the *Medical Times and Gazette*, October 27th, 1883, by Dr. M'Craith, on "Position in Midwifery Practice," he speaks of the difficulty in turning in the English position, in cases where the child lies with its back to the mother's abdomen; and in speaking of the use of the left hand in such cases, exclaims, "Can anything be more stupid than this? *Fiat experimentum in corpore vili.*" However, in every case in which the child lay in that position, viz., with its back to the mother's abdomen, I have always turned with my left hand, the mother lying in the English position; and such cases formed fully one-half of the cases in the series, and I think that an accoucheur ought "to have a right hand on his left shoulder for that purpose."

Cases of flooding were more numerous in the first series, showing an average of 5·3 per cent. The present series give 3·3 per cent., and in none of them have I been obliged to resort to injections of Tinct. Ferri Perchlor, pressure over the uterus and injections into the uterus of cold water being sufficient. This difference arises, I think, from more care being taken in keeping pressure with the hand on the uterus between the birth of the child and the coming away of the placenta; and when the labour pains were in any way weak, or the intervals between them long, giving a dose of ergot, as the head was pressing on the perinæum.

An account of three of the cases under the head of Hydrops Amnii was published by me in the *Medical Times and Gazette*, January 9th, 1875, with some remarks on this complication. Since then I have had two well-marked cases of this nature. In the first of these I was called to attend after the second stage had lasted for more than three hours, when I found the os fully dilated, with a dense membrane stretched across it, and no advance made by the pains. I ruptured the membranes, which were very tough, and nearly four gallons of water escaped. The child was born dead shortly afterwards, and some hæmorrhage occurred.

In the second case I was called to attend early; and as soon as ever the os was dilated, I gave a dose of ergot, and ruptured the membranes. Over three gallons of water came away, and by keeping good pressure over the uterus with a binder, the child's head immediately entered the pelvis, and was soon born alive. No hæmorrhage occurred.

The death-rate of mothers is much lower in this series of cases, not amounting to one per cent., while in the former it was two per cent. The causes of death were as follows:—

1st. Primipara.—Taken with convulsions during the second stage of the labour, and died eighteen hours after the birth of the child.

2nd. Multipara.—This patient was in a low state of health for a long time previous to her confinement, suffering from rheumatism which attacked the uterus ten days before labour; peritonitis set in immediately after the labour, and she died on the third day.

3rd. Multipara.—Premature labour at beginning of seventh month of pregnancy; labour came on in the third week of typhoid (enteric) fever, and she died a few hours after the birth of the child.

4th. Multipara.—Premature labour at end of seventh month of pregnancy; labour came on during the course of acute dysentery; died second day after the birth of the child.

5th. Multipara.—Premature labour at end of sixth month of pregnancy. The patient was in an advanced stage of Bright's disease of the kidneys; she died on the third day comatose, but did not have any convulsions.

6th. Multipara.—Premature labour during seventh month of pregnancy; was suffering at the time from acute double pneumonia.

7th. Multipara.—At full time; died from peritonitis on fourth day after craniotomy; she had been more than 40 hours in labour before I saw her; I endeavoured to deliver with long forceps, but failed; the upper brim of the pelvis was contracted in the antero-posterior diameter by an enchondromatous tumour on the sacrum. I then delivered the child by craniotomy. I think that if I had seen her earlier, and operated sooner, her life might have been saved.

The causes of death among the children are shown in the following table.

TABLE VI.

Causes of death.	Male.	Female.	Total.
Premature	13	7	20
Placenta prævia	3	—	3
Version	4	4	8
Craniotomy	1	—	1
Hydrops Amnii	1	1	2
Atelectasis pulmonum	—	1	1
Hydrocephalus	1	—	1
Imperforate anus	1	—	1
Hæmorrhage from navel	1	—	1
Anencephalous	1	—	1
Totals	26	13	39

The death rate of children in the first series was 4·5 per cent., but amongst them premature cases are not included. In the present series, including 36 premature cases with 20 stillborn children, the death rate is 6·6 per cent., but excluding the premature cases the death rate is found to be 3·3 per cent.

The two series of cases, therefore, taken together, give a mean death rate of mothers of 1·5 per cent. Of forceps cases 4·2 per cent., and of version 3·4 per cent.

Among the children, three were born with imperforate anus. In two there was a membrane occluding the anus, which was easily broken away. In the third case, which died, no rectum could be found in the pelvis. In the case of hæmorrhage from the umbilicus, I tried every means I could think of to arrest it. I tied the cord three times, each time nearer to the abdomen, and used styptics, amongst others Styptic Colloid, but without effect. I then passed a needle through the navel, catching the skin on each side, and brought a ligature in the figure of 8 round it, but shortly after, the bleeding began again. I then passed a curved needle through the skin, under the first

needle, across the umbilicus, and out through the skin again, and tied it across in a figure of 8, and then put a circular ligature round the two needles, but hæmorrhage came on again in about an hour, and the child died. The child when born appeared strong and healthy.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GOVERNMENT HOSPITAL, KANDY, CEYLON.

TWO CASES OF HERNIOTOMY, WITH OPERATION FOR RADICAL CURE.

By JOHN ATTYGALLE, M.D., M.R.C.S. Eng.,
Medical Officer in Charge.

Case I.

Stephen Appoo, a Sinhalese carpenter, aged about 35 years, was brought into the Government Hospital, Kandy, on the evening of the 8th March, 1884, complaining of excruciating pain in the left inguinal region, and nausea; he was very restless, skin clammy, countenance anxious, and he was also said to have vomited some "dark stuff" several times.

On examination, a large hernial tumour was found in the left groin, it was very hard and painful to the touch. From the enquiries made, it was elicited that the man had been suffering from reducible hernia for the last ten or twelve years, and about six months ago he suffered almost in the same manner as now. On that occasion, too, he was brought to the hospital, and I then reduced the hernia by taxis, and recommended him to wear a truss, which he did, but this afternoon whilst it was taken off that he might have a bath, the bowel came down, and would not go back. By the application of ice, and under the influence of chloroform every effort was made to reduce the hernia by taxis, but without success, and finding the man's condition getting worse and worse every moment, I decided upon performing herniotomy without any further delay, and did so at once with the assistance of my House-Surgeon, Mr. Chinniah.

On exposing the sac, a slight constriction was noticed opposite the external ring, which was pinched up and divided on a director, and an attempt was made again to reduce the hernia by manipulation; this, however, failed, and as a *dernier resort* the sac was opened. On passing the finger up the inguinal canal, a well-marked constriction was felt, occupying more than two-thirds of the internal ring. It was divided in the usual way with a herniotome, and the bowel was carefully pushed back into the abdominal cavity. This, however, was attended with some difficulty, and necessitated considerable handling of the bowel, because that portion which had descended into the scrotum would not move up whilst *in situ*, and had to be taken out of the wound before it followed the upper portion. The edges of the wound were brought together by means of silver wires, which were so applied as to pass through the sac, and covered over with dry lint. A grain of opium was ordered to be given to the patient every fourth hour.

March 9th, temperature 100·4°, slept pretty well. Abdomen slightly puffed up, but the patient does not complain of any pain.

Diet: Milk and Conjee, bread soaked in milk and chicken-broth.

March 10th.—Temperature 98·8° in the morning, 100·8° in the evening. No discharge from the wound. Bowels confined. Continue opium pills twice a day.

March 11th.—Doing well. Dressing changed for the first time, a slight discharge of thick pus on pressure. Abdomen somewhat puffy. A cathartic enema was ordered.

March 12th.—Bowels moved freely by the enema. Temperature was normal in the morning, but rose to 101° in the afternoon. Pills to be continued, with gr. ii. of Quiniæ Sulph.

March 13–16th.—Has been progressing satisfactorily during these days. Bowels were regular, but the motion this morning was rather loose and offensive. There is a slight discharge from the wound.

March 16th.—Morning to 12 noon. Has had six motions this morning, very offensive, and containing much mucus tinged with blood, and also lumps of undigested milk. Ol. Ricini ℥ i., to be taken immediately.

March 16th, 6 p.m.—Temperature 103·4°, pulse 110. Bowels moved several times after the oil. Pulv. Doveri gr. x., at bed-time.

March 17th.—Temperature 99·4° Had two motions during night, rather scanty and containing both mucus and blood. Wound doing well. Pulv. Doveri gr. v., Bismuth. subnitrat. gr. v., Pulv. Opii gr. i., Ft. pulv. i. every four hours.

March 17th, 6 p.m.—Bowels not moved since morning. Temperature 98.4°. Omit powders. Liq. Morph. Hydrochl. ♏ xxx. at bed-time.

March 18th.—Bowels acted once this morning naturally. Temperature normal. Little or no discharge from the wound.

March 28th.—Wound quite healed; the parts are much thickened, and the inguinal canal seems effectually obliterated; there is not the slightest sign of the bowel coming down.

April 8th.—The patient is quite well, and was discharged from hospital this morning.

Case II.

Singho Appoo, a Sinhalese man, aged about 35 years, was brought in on March 20th, 1884, with symptoms of strangulated hernia, and he stated that he had been suffering from reducible hernia of the right side for the last ten years, and a few years ago Dr. Anthonisz, of Galle, performed an operation (apparently Wood's) for its radical cure. The operation proved unsuccessful, and he had been wearing a truss ever since; and this morning when it was taken off to attend to a call of nature, the bowel came down and could not be put back. He had been suffering much, and complained of severe pain about the right inguinal region; the hernial tumour was very large, the surface of the skin was bedewed with perspiration; he was also said to have been vomiting several times, and all the symptoms showed intestinal obstruction unmistakably.

Taxis was applied under the influence of chloroform, but without success; and as nearly twelve hours had already elapsed since the bowel got strangulated, and the man's condition was getting worse rapidly, herniotomy was performed at once. The greater portion of the soft tissues in front of the sac were divided by transfixion with a bistoury. On exposing the sac, a marked constriction was felt a little below the internal ring, and no sooner it was divided with a herniotome, guided by the finger, than the bowel receded quickly into the abdominal cavity. The edges of the wound were brought together and dressed in the same manner as in the first case, and a grain of opium was ordered to be given to the patient thrice a-day.

March 29th.—Temperature 100°. Complains of some pain in abdomen on the right side above the seat of the wound.

March 30th.—Doing well. Bowels not moved. Temperature 100°. No discharge from the wound.

March 31st.—Temperature 99·4°. No pain in abdomen. Dressing removed for the first time, and the greater portion of the wound united by first intention. A cathartic enema was ordered.

April 1st.—Temperature normal. Bowels did not act after the enema. Omit pills, and a dose of castor oil to be given at once.

April 2nd.—Bowels acted freely after the oil. Wound nearly healed.

April 10th.—The patient is quite well and was discharged from hospital this morning. Bowel has not come down since the operation.

Remarks.—The two cases of strangulated hernia reported above are interesting, as showing in particular that even without the adoption of antiseptics, precautions so much in vogue nowadays, herniotomy is by no means so dangerous an operation as was at one time believed; and the great secret for its success lies in its being undertaken as early as possible, and before any injury has resulted to the bowels from prolonged strangulation. So far as I could judge from the appearances of the parts in both the patients after the wounds healed, the operation was not only useful in saving their lives for the time being, but also of effecting a radical cure of their complaints as well; and I think it always desirable in cases of herniotomy to secure the occlusion of the sac, as was done in these, or by one of the different methods mentioned by Mr. McGill, of Leeds Infirmary.

The wound in both the cases was dressed with simple dry lint in the first instance, and no symptoms whatever of peritonitis showed themselves; and I attribute this satisfactory result in a great measure to the free administration of opium, which is, to my mind, the remedy *par excellence* in such cases. The beneficial effect of opium in guarding against peritonitis in wounds of the abdominal parietes was well marked in the following case, which occurred in my practice some time ago.

A Sinhalese lad, aged about 10 years, was gored by a buffalo, and was brought to the hospital with a penetrating wound in the abdomen, through which nearly the whole of the small intestines were protruding. The boy it would seem fell on a dusty road after receiving the injury, and some sand and pieces of leaves were attached to the coils of the intestines. These were carefully washed away with a weak solution of carbolic acid, and the bowel put back as gently as possible. The edges of the wound were brought together with silver wire, and dressed with a pad of dry lint. Opium was given freely, and the boy recovered without experiencing any untoward symptoms.

An Unusual Obstetrical Case.—Dr. C. P. Strong reports the confinement of a healthy primipara, aged 30, attended with the following complications: prolongation of gestation (upon apparently conclusive evidence) to 299 days at least; a large child; entire absence of liquor amnii; interstitial and subserous fibroids so large that, after birth, the fundus of the contracted uterus reached to two inches above the umbilicus; contracted pelvis (flattened pelvis of Schröder), combined with occipito-posterior presentation and non-rotation of the head. The child was turned with difficulty, and extracted in a moribund state. The mother subsequently suffered with labial hæmatoma, partial sloughing of the perinæum and vulva, traumatic cystitis, and a febrile temperature lasting for five weeks; but ultimately recovered under opium, ergot, and antiseptic douches. Three months after labour, the posterior wall and fundus uteri were still thickened and irregular, but the fibroids had apparently melted away.—*Boston Medical and Surgical Journal*, January 10th.

Medical Times and Gazette.

SATURDAY, MAY 31, 1884.

In the House of Lords, on Monday last, Lord Stratheden and Campbell brought in, and moved the first reading of, a Bill for Abating Smoke in the Metropolis. He dilated at some length on the evils arising from the nuisance, citing statistics to prove the existence of the evils referred to, spoke of the work done by the Society for preventing Smoke in the Metropolis, and explained that his Bill would enable local authorities, under the supervision of the Home Secretary, to make by-laws for the gradual abatement of smoke and its ultimate extinction by the introduction of new apparatus; and, by the repeal of a few words in the Sanitary Act, would empower them to proceed against exceptional and aggravated smoke from private dwelling-houses. Lord Mount-Temple, after observing that it is characteristic of the British public to grumble, and after they have had their grumble to often be content to let a grievance slumber, supported the Bill, which was then read a first time.

The large increase in the number of cases of small-pox in the Metropolis during the last four weeks, incited Dr. Cameron to question the President of the Local Government Board, on Friday last, as to the measures taken to secure the vaccination or re-vaccination of all persons exposed to infection. Sir Charles Dilke stated in reply, that "What is, or should be, done" on the occurrence of small-pox, is that the vaccination officer, with such assistance as the Guardians may give him, should make detailed visits to the houses in infected streets for the purpose of detecting any children who may not have been vaccinated, and of urging re-vaccination on adults and adolescents who have not already been re-vaccinated, and who are exposed to danger of small-pox infection. Special places for re-vaccination have, on such occasions, been frequently provided by Guardians of parishes, to meet the convenience of special classes of people; and Sir Charles added that these measures had repeatedly been carried out through a union with excellent results.

This is very well, so far as it goes; and it is well also to be assured that "the Local Government lose no opportunity of commending these measures to Guardians;" but it would be much better were there less of a permissive tone about all these arrangements for preventing the spread of small-pox. The Board have only the power of "commending" them; and Guardians may carry out the recommendations of the Board, or may ignore them, should apathy, ignorance, or short-sighted stinginess guide the majority of them. A like feebleness taints all the provisions made to meet outbreaks of small-pox. The Vaccination Acts contemplate, says Sir Charles Dilke, that when a District Medical Officer attends a case of small-pox he *may*—the italics are ours—at once vaccinate or re-vaccinate any of the inmates of the house, and be paid for so doing the fee that the public vaccinator would have been entitled

to had he done the work ; and this last-named official *may* or *might*, in such circumstances, re-vaccinate at other than the ordinary stations, due notice of his intention to do so being given, should he think it necessary. The Local Government Board were aware that in Glasgow the Medical Officer of Health personally sees to things being done, promptly offers, in circumstances of hazard, re-vaccination, and is willing and ready there and then to perform it ; but, said the President of the Board, though in exceptional cases the vaccination may be performed at once in England also, that is not a part of the general system on which English vaccination is regulated.

Dr. Cameron further enquired whether it would not be well to spend a few hundred pounds in getting Medical Officers of Health to undertake in London the work they do in Glasgow ; and so to test whether outbreaks of small-pox may not be as cheaply, speedily, and effectually controlled in the metropolis as they have repeatedly been in Glasgow. The reply made to this would have done credit to a Past Master in Art of "how not to do it." This part of the question raises, the President of the Board said, the point whether the vaccination arrangements should not in the metropolis be transferred, as was recommended by the Royal Commission on Hospitals, from boards of guardians to the sanitary authorities. But at the present moment, when material changes are proposed in the constitution of the metropolitan sanitary authorities, this question cannot well be determined, though it is a matter which must receive full consideration as soon as such changes have been made. The interpretation of this is, that a matter of great and urgent sanitary importance is to be deferred till the political measure for the reform of the municipal government of the metropolis has been carried ; and that legislators of even Sir Charles Dilke's intelligence, honesty, and force of character are still to be found, who will to party give what is meant for mankind.

The Report of the Committee upon the Public Prosecutor's Office, has been laid upon the table of the House of Commons, is passing through the press, and will be obtainable before the vote for the Office is taken in Supply.

The last meeting of the Clinical Society, held on Friday, May 23rd, was brought to an early conclusion by the unusual reticence of its members. Of four papers on various subjects, only one gave rise to any discussion. The operation of removal of stone from the kidney, and the relative advantages of cutting or tearing through the kidney substance, or of opening the pelvis of the kidney alone, formed the chief points at issue. Mr. W. Anderson in his paper on the subject advocated the latter procedure, and proposed for it the distinctive title of pyelo-lithotomy. This proposition was gently ridiculed by Mr. Henry Morris, who suggested that an incision of the renal calyx, for a like purpose, might be fitly entitled "calico-lithotomy." Renal lithotomy, however, as he further observed, is as yet in its infancy only, and no positive rules can be laid down with advantage. An interesting case of impaction of bone in the larynx was read by Dr. Frederick Taylor. The bone had become impacted through the efforts of the patient's wife to extract it from his larynx by means of a table-spoon, and after this somewhat severe endo-laryngeal treatment, it was thought advisable to remove it by incision through the crico-thyroid membrane, which was accordingly done by Mr. Golding-Bird.

In accordance with his notice given at the previous meeting, the President invited the opinion of the members present as to his proposition to hold an additional meeting for the purpose of finishing the six papers remaining on the list. The general opinion appeared to be on the whole unfavourable to the proposition, and it was negatived by a majority of votes. At the conclusion of the business, the President mentioned that the council had decided to recommend certain alterations in the procedure of the Society's meetings in the future. It was proposed to take the refreshments, tea and coffee, before the meetings instead of afterwards, the present custom being, in the opinion of the council, an unphysiological practice. More facilities were to be given for the exhibition of living specimens, of which there have been so large a number during the present session. Both of these propositions appeared to meet with general approval.

At the Royal Medical and Chirurgical Society on Tuesday last, Dr. Herman described some "composite" temperature charts of small-pox. They represented the average temperature of a number of patients in lieu of the usual individual patient. Such a method may give useful averages if sufficiently large numbers of individuals be employed ; but it can never supersede the more usual method of carefully recording the individual temperature in each case. Subsequently two papers were read on the surgical treatment of pus-secreting cavities in the lungs. The case recorded by Dr. Cayley and Mr. Gould was one of gangrene in association with pyæmic symptoms following an abscess in the mastoid process ; stinking pus, and a sequestrum of gangrenous lung were discharged through a drainage tube which was passed into the cavity. The child made an excellent recovery. Dr. Biss' case was of a more chronic nature, and one in which the diagnosis was less easy to establish. Believing that an abscess cavity existed in the base of the lung, with slight effusion into the adjacent pleura, and other remedies having failed, it was decided to drain the abscess, one or two minor explorations having been made without much success. Mr. Marshall incised the chest wall, and then pushed in a large trocar to a depth of four inches, when a cavity was reached from which whiffs of fœtid air were expelled, but not much pus. The patient finally died, and the autopsy revealed not a large abscess cavity, but a number of bronchiectatic cavities. An interesting discussion followed, a summary of which will be found in another column.

Every member of the profession whose interests stretch beyond the circle of his own daily work, will have heard with singular pleasure of the distinction which has been conferred on the President of the

General Medical Council. The position which Sir Henry Acland occupies in the profession is a peculiar one, demanding a combination of gifts and qualities rarely met with in the same individual, and it is very proper that the rank bestowed on him should be a peculiar and distinguished one. The honour of K.C.B. is very rarely given to civilian practitioners of medicine, Sir William Jenner being at present the only one who has been picked out for it. In some respects it is a higher, though perhaps not more coveted, distinction than the baronetcy that falls almost as a matter of course to successful Court physicians and surgeons. No one will deny that Sir Henry Acland has thoroughly earned his reward. For the last thirty years—ever since he published his elaborate memoir on the cholera at Oxford—he has put behind him more unpaid and ill-paid work than almost any of his brother practitioners, and in his chairs in Oxford Street and at Oxford he has done service to the profession which only those immediately around him have any idea of. His peculiar position has enabled him to be a sort of connecting link between the profession and Society. He has done his best to enlighten the upper classes as to the position and place of the physician in the State, and in doing so, like a clever interpreter, he has made his client appear in the best possible light. His most important teaching has been that culture and moral earnestness are not necessarily stripped off in the dissecting-room.

The first meeting of the Oxford Graduates' Medical Club took place on Thursday, the 22nd inst., in the form of a dinner, at Limmer's Hotel. Like most inaugural meetings, it was a distinct success, fifty out of the eighty-one, who so far form the club, being present. There was some difficulty at first in finding out the whereabouts of all the Oxford graduates who have devoted themselves to medicine; and the club-list will probably soon become somewhat longer; but if the wishes of many of the older Oxford men are carried out, and no change is made in the arrangements for medical students at that University, the club may congratulate itself that it will long maintain the character it has started with, of being small and select. The sister club is of course much larger, owing to the greater facilities at Cambridge for utilising time in medical study, and the consequently larger number of general practitioners, of whom Oxford boasts but few. Dr. Fincham, President of the Club, was in the chair. His toast of the Medical Faculty at Oxford was warmly responded to by those holding all shades of opinion as to how this faculty might best be fostered. And Prof. Acland, in his eloquent reply, avoided all jarring notes, while he appealed to the proud satisfaction his fellow clubmen had in being Oxford medical graduates, and besought them, as it were, to assist in handing down the brilliant torch of Oxford medicine, undimmed, to succeeding generations at their *Alma Mater*. The evening continued and ended with the pleasurable talk of many long-parted acquaintances, unhindered by toasts or music.

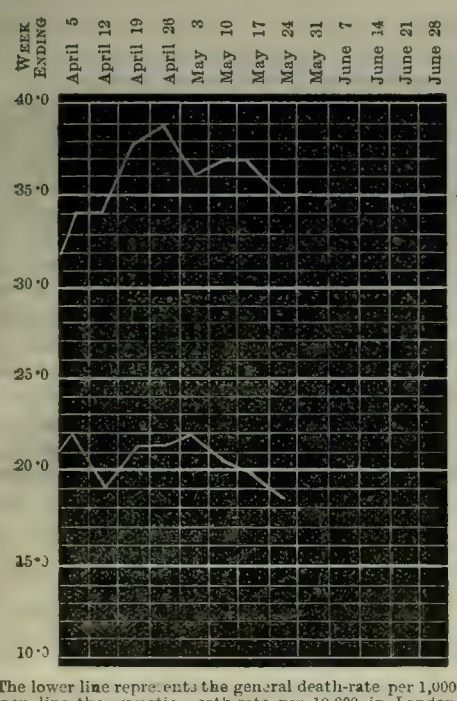
The choice of the electors to the new Cambridge chair of Pathology has fallen, by a very narrow majority, it is whispered, on Dr. C. S. Roy, the well known Superintendent of the Brown Institution. Once grant that the new professor's function should be research rather than teaching, and it will be readily admitted that a better candidate than Dr. Roy could hardly have been selected. He has had exceptional opportunities of training himself in the methods of physiological and pathological research, under Du Bois Reymond, Virchow, Recklinghausen, Cohnheim, and Michael Foster, and during the period that he has presided over the institution at Vauxhall, he has shown that he possesses in a high degree the imagination and inventiveness necessary to the successful investigator. The advocates of pure research may justly congratulate themselves on the fact that the election of Dr. Roy to the Cambridge chair has added another to the few endowed appointments open to investigators in this country. The Committee of the London University Senate who govern the Brown Institution will find it difficult to fill Dr. Roy's place, but it will be some consolation to them to think that they have in such quick succession supplied professors to the three chief teaching universities in the United Kingdom. There can be no doubt as to the success of the Brown Institution as an educational establishment.

The Council of the Royal College of Surgeons has just announced the following as the subject for the Jacksonian Prize for the ensuing year, viz.:—"The Diagnosis and Treatment of such Affections of the Kidney as are amenable to direct surgical interference." For the present year the subject is "The Surgical Treatment of Uterine Tumours, both Innocent and Malignant." The money value of this prize is the amount of the dividend, between 12*l.* and 13*l.*, received from the Trust. The College-triennial prize consists of the John Hunter Medal, executed in gold, to the value of 50 guineas, or at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of 50*l.* The subject for it is "The nature of Inhibitory Action in the Animal Body, to be elucidated by original research." The essays for the Jacksonian Prize for the present year must be delivered at the College on or before the 31st of December next.

On Wednesday week, at 4 p.m., Sir Henry Thompson will commence, in the theatre of the College of Surgeons, a course of six lectures on Some Important Points in connexion with the Surgery of the Urinary Organs. The following synopsis of the course has been published:—Lecture I. Wednesday, June 11th.—Introductory.—On the treatment of Stricture of the Uretha by internal Urethrotomy. Lecture II. Friday, June 13th.—On the diagnosis of Urinary Diseases.—Digital exploration of the Bladder. Lecture III. Monday, June 16th.—On Tumours of the Bladder: their nature, diagnosis, and treatment. Lecture IV. Wednesday, June 18th.—Impaired Vesical function: its various forms and consequences. Lecture V. Friday, June 20th.—The progress of Operative Surgery for Stone during the present century; with the most recent improvements in Lithotrity, and their results. Lecture VI. Monday, June 23rd.—The results obtained by

Lithotomy and Lithotrity in Great Britain during the present century; with an analysis of more than 800 cases by the author, presented therewith.

The general death-rate for London having in various weeks of the present year made unsuccessful attempts to get below 19·0 per 1,000, has at length succeeded. Last week the return was only 18·5 per 1,000, although the zymotic death-rate still remained unsatisfactorily near the top of our chart, and the number of zymotic deaths was 33 above the ten years' average. The deaths from diseases of the respiratory organs, on the other hand, were 27 below the average, and fewer than they had been in any previous week of the year. Of the



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first eight weeks of the present quarter.

zymotic diseases, small-pox is still increasing in prevalence though not in fatality. Seventeen deaths from the disease were registered during the week, as compared with 30 in the preceding week, but 232 new cases were admitted into hospital as against 112 in the previous return. The deaths from measles and whooping-cough numbered respectively 81 and 92, and taken together were more than 50 above the average. There was a considerable increase in the number of deaths from diphtheria and diarrhœa.

The Registrar-General for Ireland's provisional report for the year 1883 has just been issued, and it may be worth while briefly contrasting its data with the corresponding returns for England which we published some weeks back. In England and Wales the birth-rate has declined during the last eleven years from 35·4 per 1,000 in 1873, to 33·2 in 1883. In Ireland during the same period, it has fallen from 27·1 to 23·6. In England and Wales during the same eleven years the death-rate has ranged between 22·7 and 18·9, reaching the latter figure in 1881; last year it was 19·5. In Ireland the range has been from 19·8 in 1880 to 17·3 in 1874 and 1876; last year it was 19·2. In England, last year's death-rate was 1·3 below, whereas in Ireland it was 1·0 above the mean of the eleven years. In Ireland the mortality of infants under one year in 1883 was considerably less than in England, the figures being respectively 99·6 and 137 per 1,000 births. In England during last year, the zymotic death-rate was 2·20 per 1,000; in Ireland it was only 1·64. In respect to all the zymotic diseases, except the various forms of fever, Ireland showed a marked superiority to England. It is satisfactory, as pointing to the increase in diagnostic skill, to note that within the last four years the deaths registered in Ireland as due to simple continued and ill-defined fever, have fallen from an average of over 1,000 to less than 400.

It may be remembered by some of your readers, writes our Liverpool correspondent, that the old Lying-in Hospital, Myrtle Street, Liverpool, had to be abandoned about two years ago, on account of the prevalence amongst its patients of erysipelas and puerperal fever. Severe epidemics of both diseases appeared in it again and again, and it was periodically being shut up and re-opened. Medical Committees of Inspection of the highest local standing were appointed at different times to examine and report upon the condition of the hospital, and each committee made recommendations which failed to reach the seat of the evil. The hospital was in a good situation, on a good foundation, and afforded by its elevated position every facility for good drainage. It was in a healthy locality, and its Staff was always composed of excellent men. Through its unsatisfactoriness, dissatisfaction spread amongst its supporters, estrangements took place between the Staff and the Committee, and the hospital was finally sold to the authorities of the Cancer Hospital. Under the new *régime*, and amongst the new class of patients erysipelas once more appeared, and Dr. Taylor, Medical Officer of Health, was again called in. He failed to detect any definite fault, and as a *dernier resort*, threw a quantity of chloride of lime into the main sewer. To the astonishment of the Staff, the hospital now became saturated with the easily-detected fumes of chlorine gas, thus proving undoubtedly a defect in drainage. The sewers were opened up, when it was found that, not only the hospital drain, but the sewer into which it opened sloped upwards *from* the hospital. These drains were therefore always stagnant, only the overflow passing over the hill.

In such a situation as that in which the hospital was built, it seems almost a matter of criminal carelessness or ignorance on the part of those responsible for this defective construction, to have made the sewers in the way they did. They appear to have actually gone out of their way to make them wrong. A long list of deaths may, at any rate, be ascribed to the error; and nothing can compensate the surgeons of the hospital for the worry and anxiety of years, involved in the constant struggle against the unseen foe, which they were told again and again by their architectural advisers did not exist. Ventilation, cleanliness, isola-

tion, and repeated evacuations were tried in vain, till at last they were compelled to beat a retreat. The capacity of the Staff was discredited, and every one connected with the place was disgusted and discouraged. Too much publicity cannot be given to the facts of this case, and it should teach medical men to open up the drains, in the face of engineering assurances that they are all right, if repeated outbreaks of preventible diseases lead them to suspect the invasion of sewer gas. The drainage of a hospital should always be before the Medical Staff by means of accurate drawings, so that they may at once look out for a leakage on the occurrence of any unusual phenomena in their patients. Since the alteration of the sewers in the case in point, erysipelas has disappeared from the hospital. A similar experience occurred in connection with one of our best built metropolitan hospitals only a few years ago ; and the rule in such cases should be, not to trust the assurances of architects, who are often utterly unskilled in sanitary science, but to at once put the matter into the hands of a specialist in drains.

Considering the numerous reports which he has furnished recently to the Local Government Board, on the general sanitary condition of the Tynemouth Registration District, it might have been imagined that Dr. Barry had exhausted the subject. So far from this being the case, however, he has considered it necessary to send in a report which is full of suggestions for improving the health of this great mining district. Round most of the large coal-pits there, sets of houses have, little by little, grown up, which are generically termed "colliery villages," and to these, in a great measure, is to be traced the prevalence of infectious diseases in the locality, a prevalence which will be understood, when, as Dr. Barry shows, scarlet fever has prevailed epidemically with great regularity at intervals of from five to six years, for the last seven and twenty years, with a death-roll of nearly 4,000 souls.

The conditions which have tended specially to influence the spread of infectious disease in these colliery villages, apart from the habits of the people, are, Dr. Barry thinks : the arrangement of the houses in long rows without cross-openings ; the distribution of the water to stand-pipes common to large numbers of houses, largely resorted to by dwellers in healthy and infected dwellings indiscriminately ; the drainage system of an open channel common to all the houses in a row ; the storing of filth and excrement of two or more families in one common receptacle, never properly emptied ; the peculiar danger arising in those villages supplied with water pumped from the pit, on account of the temporary nature of these supplies, and the possibility of the inhabitants being driven to use water from polluted sources ; and lastly, the utter absence of any means in these small houses for isolation, whilst in many of the oldest an additional danger is met with in the defective nature of the party-walls which permit of atmospheric communication between adjoining houses.

It is only right, however, to point out, Dr. Barry adds, that colliery villages are usually well situated, that there is ample air space around the houses, that there is rarely or never any connection between the interior of the houses and the sewers, and that the privies, as a rule, are at a considerable distance from the dwellings. Further, personal and domestic cleanliness is greater amongst the mining population than in almost any other class of working people. The women not being employed in the pits, and not having, as in manufacturing towns, any share in providing for the family, have ample time at their disposal, and as the house-work is easily done, they congregrate wherever there is sickness, accompanied by the younger children, and thus promote the spread of infectious disease.

Whatever opinions may be entertained as to the therapeutic value of koumiss and the relative merits of the different kinds, the advantages presented by asses' milk over that of cows', in certain conditions of the digestive organs, have long been recognised. The explanation is to be found, not in the relative proportions of the casein and albumen, lactose and fat, but in the fact that the casein of the milk of equine animals exists in a different form from that in which it does in the milk of the ruminants, being but imperfectly, if at all, coagulated by acids—a property which is possessed also by the casein of human milk, and which has led M. Housson and others to regard it rather as another form of milk albumen. As asses' milk, which has been proved, in the Foundling Hospital at Paris, to be greatly superior on this account to cows' milk in the nutrition of infants under three or four months, is not always to be had, the introduction into the market of a condensed mares' milk will be felt as a boon by many. The manufacturers possess a stud and factory near Orenburg, on the borders of the steppes of South-Eastern Russia, and made their first experiments in the summer of 1882 ; but last year may be considered the first of regular work, and the article is greatly superior to that turned out in 1882. The contents of each tin weigh ten ounces, are very thick, of a pure white colour, and pure honey-like taste. The analyses of Dr. Vieth confirm the statements of the manufacturers, that not more than three per cent. of cane sugar is added, and that the milk has been condensed to one-eighth of its volume, *i.e.*, to one-sixth of its weight. The composition of the milk diluted in the proportion indicated, making allowance for the added sugar, closely corresponds to the few analyses we have of the mares' milk of the steppes ; the small amount of added sugar is certainly no fault, while the ready digestibility of the casein will probably be found of great value in the artificial feeding of delicate infants.

Mr. Frederick Charles Heidenstam, the Chief Medical Officer of the Government of Cyprus, has been gazetted a C.B.

At the first meeting of the Medical Jurisprudence Society of Philadelphia, Dr. Reese read a paper on "Medical Experts." After pointing out the unsatisfactory state that at present obtains, by which any one can be put into the witness-box and call himself an

expert, his evidence being received as of equal value with that of men who have made a special study of the subject, he suggested that the only remedy for this evil is the appointment of state medical experts. Such a one would have to be a well-educated practical physician, thoroughly up in all the details of medical jurisprudence. He would have to sit with the judges during the trial, and enlighten the court and the jury on the technical points in the case, he would make the analyses in cases of poisoning, and being retained by neither side his evidence would be without bias. The salary should be liberal, as the holder of such a post would of necessity be precluded from private practice, and he should be elected by the judges of the Supreme Court of the State.

There can be no sort of doubt in the minds of most people that the present system of allowing anyone, no matter how slight an experience he may have, to be put forward to give skilled evidence is objectionable, and often very unfair, and that some reform is urgently needed. But will the plan as sketched out by Dr. Reese meet all the requirements of the case? This seems to us open to doubt. What is wanted in a scientific witness is that he should be a man of experience, not in medico-legal matters only, but in general medicine and surgery. And this is just the difficulty that has not hitherto been bridged over. It would be easy enough to get able and well-educated young men to accept such a post, but they would lack the one qualification, which alone would enable them to give a reliable prognosis, viz., experience. And it does not seem likely that such a salary would be offered as would induce anyone who had already gained that experience, to throw up his private practice and accept the post.

The Minister of Public Instruction at Berlin has resolved upon the foundation of a professorship of hygiene in the Berlin University; and to this there will be attached a Hygienic Institute, under the direction of Geheimrath Robert Koch. No such institute has been founded hitherto in any of the Prussian universities.

So many evil influences have from time to time been declared to be at work in the production of endemic cretinism, that it almost becomes a matter for marvel how any of the dwellers in the affected districts can escape the disease. Geological and meteorological conditions of every kind have in turn been reckoned among the predisposing, if not the exciting, causes of the malady, and by some writers even a directly infectious character has been attributed to it. It is not, therefore, a matter of surprise to find, by the report of a meeting of a Health Society in Vienna, that cretinism is on the increase in the mountainous districts of Styria, Carinthia, and Istria. Its distribution appears to follow the primitive formations and the streams which have their rise in them; it occurs but little on the chalky soils, and is most prevalent in the valleys. A definite opinion, expressed by Professor Billroth at the same meeting, that the disease is essentially hereditary, the tendency being fostered by the frequent intermarriage of families, was fully borne out by the experience of other observers. The introduction of a new race of inhabitants, as in the construction of great works such as the St. Gothard Railway, has always been followed by a distinct diminution in the number of cretins, although the increase of traffic and the more civilised mode of life may also have played a prominent part in the production of a more perfectly organised race of beings.

Dr. Hans Virchow, the son of Prof. Virchow, who has hitherto been working as privat-docens, at Würzberg, has been summoned to Berlin in order to assume the direction of the histological course under Geheimrath Prof. Waldeyer.

In the course of the intermittent warfare which has been waged on paper between the anti-vivisectors and their opponents, the position of the latter has hitherto been defended, almost entirely, by members of the medical profession, and it is obvious that such is, for the most part, likely to remain the case, since—while it is easy enough for even a superficial humanity to find objections to the practice—a true and impartial appreciation of the real and relative value of the arguments for and against vivisection is possible only to those who have devoted special training and a wide field of observation to the consideration of the subject. In other words, it is the physiologist *and* the practitioner who are, jointly, best qualified to speak with authority on the subject. But although to but few, if any, of those outside the profession are given the opportunities of such mingled research and observation as would entitle them to equal rank as original authorities, yet every layman of intelligence and industry may—if he will but take the necessary trouble—learn to appreciate the facts and rightly to use the arguments which they employ. Mr. Girdlestone, in his pamphlet on Vivisection,[1] has done good service to the cause he champions. If he cannot speak as a working physiologist or as a practising physician, though his deductions are sometimes hasty, and his conclusions—as must be the case in a hurried survey of so wide a field—sometimes incomplete, he has assimilated the great arguments for his creed, and can reproduce them in forcible and trenchant English. Such a work cannot, perhaps, be expected to make much impression on the leaders of the anti-vivisection movement, for we own to a realistic acquiescence in the truth of the sentiment which the author quotes from Professor Max Muller, "The older I grow, the more I feel convinced that nothing vexes people and hardens them in their unbelief and in their dogged resistance to reforms so much as undeniable facts and unanswerable arguments;" but it may influence some of those who are too often led by appeals to mere sentiment, or so-called feeling. In any case, it is cheering to find a lay writer on this subject who has not only the courage to think for himself, but also the honesty and the industry to discover what it is that he thinks, and why he thinks it.

[1] "Vivisection: In its Scientific, Religious, and Moral Aspects." By E. D. Girdlestone, B.A. London: Simpkin, Marshall, and Co. Clifton: J. Baker and Son. 1884.

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The thirty-fifth meeting of the American Medical Association, which was held at Washington, from May 6th to May 9th, under the presidency of Dr. Austin Flint, Senr. seems to have been very successful as regards the numbers present and the general tone prevailing. The thorny subject of the "New Code" was somewhat softened down under the conciliatory management of so genial and popular a president, who admitted that the Code of the Association wanted some expansion as to the range of permissible consultations, although he did not show very clearly how this was to be brought about. In the meantime, at the late meeting the matter was "shunted," for it seems as far as ever from being settled—the Association at present requiring a pledge of the unaltered Code to be taken as a condition of membership. Judging from the reports which appear in the American journals, the scientific work done at the various sections does not seem of a very high character; and the "Journal" which has been substituted for the "Transactions" evidently has a hard struggle for life, amidst the severe competition which the greatly improved condition of the weekly Medical Press in the United States subjects it to. The delegates to the International Medical Congress at Copenhagen are to be the bearers of an invitation to hold the next international meeting at Washington in 1887.

The benefit which many cases of phthisis derive from a residence during the winter months in the elevated plateaus of the Alps is so fully recognised that physicians would do well to acquaint themselves with the special features of the several localities, to one or other of which they may send their patients. We have before us elaborate series of meteorological observations made at Maloja, and recently communicated to the Meteorological Society by Dr. Tucker Wise, who believes that this station presents several advantages over those of Davos and St. Moritz, and is even preferable to Wiesen, especially in the closer proximity of glaciers, which neutralise the unpleasant influence of the föhn, or south and south-west winds, more effectually than elsewhere. Like Wiesen, it is exempt from the mists to which Davos is most subject, and it enjoys a greater number of hours of sunshine than any station in the Engadine. The observations of a single season, which may have been an exceptional one, are insufficient for forming a judgment of any place, but we may remark that the mean temperature of the four months, November, 1883, to February, 1884, was 25° F., and the extremes 45°, on December 26th, and 7·5° on February 19th; that is between the hours of 9 a.m. and 3 p.m., during which patients are accustomed to enjoy the air. The mean solar radiation was 104°, having been lowest during December. Rain or snow fell on 24 days. The barometer ranged between 601 and 623 mm., and the mean weight of vapour was 1·2 grains in a cubic foot, which for the mean temperature of 45° F. would equal about 33 per cent. of saturation.

On Thursday the library of the Royal College of Physicians was the scene of such a solemn meeting of Fellows as has hardly been held within living memory. It has been an open secret during the past week that the list of Members proposed by the Council of the College for election to the Fellowship has met with very widespread disapproval. There were names on it, it is said, the sight of which gave a shock to many of the Fellows, and names omitted which everyone had expected to see on it. Some of these names, it is hinted, were omitted as a matter of principle, and this naturally gave rise to protest as a matter of principle. This, combined with other sources of dissatisfaction, seems to have lent such strength to the opposition that the list of Fellows was referred back to the Council by a tremendous majority. Such a thing has not happened since 1859, and though the vote is not meant to be a direct censure on the Council, it is a sharp reminder to it that the free action usually granted to it is granted as a privilege and not as a right. We welcome this rebellion of the Fellows as a most healthy sign. That such a vote can have been given shows how much more popularly constituted is the College of Physicians than the College of Surgeons.

ATHENS *versus* BABYLON.

If any authoritative counterblast were needed to the uncompromising attack on the University system of the modern Athens, which we published with some hesitation last week, it has been furnished by Professor Ray Lankester, in his powerful article in the *Pall Mall Gazette*, of the 22nd instant, entitled "A University for London;" and we would rather refer our readers to that writer's able advocacy of the Edinburgh system, than crowd our columns with the many indignant, but in our opinion unneeded, protests against the assertions of "Academicus," which we have received. Professor Lankester is anxious that the modern Babylon should have a university, not a mere examining board, but a real university, such as the modern Athens has—a university "on the well-tried and established models of Germany and Scotland, with its faculty of arts and science, its faculty of law, and its faculty of medicine, each faculty numbering some twenty professors, and the combined sixty professors forming the senate, in which the absolute and sole governing authority of the university is vested, subject to constitutional limitations, and a ministerial veto." "Thus arranged," continues Professor Lankester, "the governing body of the university is keenly sensitive to all conditions which may tend to cause fluctuations in its reputation for excellence and practical utility, and consequently in the number of its pupils. Such a body may be trusted to arrange fair and sufficient examination tests for its degree, to give suitable teaching to its students as a preparation for those tests, and to secure the services of men as colleagues in the professoriate who will by force of their proved capacity and wide reputation lead to the increase of the numbers of students, and consequently of students' fees, under its control." The scheme looks very well on paper, but for our own part we must confess that we distrust Professor Lankester's ideal picture almost as much as we distrust the real one, which "Academicus" painted with such a free brush in these columns last week. The very faults which the latter condemned, and which we are inclined to think do exist, at any rate in the modified form of tendencies, would have

been impossible but for the system which we are implored to import into London. A university with a fair proportion of "outsiders" on its senate, would never have exposed itself to even a whispered accusation of mercenariness.

But the suggestion of a *real* university in London has to be regarded from other points of view. Is it wanted, is it practicable, is it desirable? Dealing with the suggestion solely from the medical point of view, we do not think that any of these adjectives can be applied to it. A considerable part of the function of a university is already undertaken in London by the Colleges of Physicians and Surgeons, which, whatever their shortcomings, no one would wish to see displaced by a brand new university "on the well-tried and established models of Germany and Scotland." The Colleges are every day coming to be more and more regarded as the true foster-mothers of the higher medicine, and the higher surgery; the upper ranks of the profession will always, of necessity, become associated with them, and we do not suppose that even Professor Lankester would suggest founding a university solely for general practitioners. But they are only examining boards! Well, we do not know that they are for that any the less interested in the number of pupils at the London Medical Schools. Certainly no one will contend that the teaching given at the best metropolitan hospitals, in response to the demands of the Colleges, is inferior to the teaching given in the crowded lecture-rooms and hospital wards at Edinburgh. There is no doubt a deplorable degree of wanton waste in medical teaching in London, which needs firm and combined action to overcome, but we doubt whether a new university would be able to exert the required pressure. The number of medical students is much too large and the hospitals far too scattered to be gathered up under the wings of a single *Alma Mater*. At least three or four schools of primary medical instruction are needed, with free competition between the clinical teachers of the different hospitals, to make medical teaching in London at once thorough and economical without being unmanageable. If, on the other hand, it is proposed to found a university for the *élite* of the students—if it is proposed to have its degrees earned and not bought—if, further, it is proposed to teach these students apart from the duller-brained remainder, then we submit that no more injurious scheme could have been devised. It would mean reducing the students at the non-university schools to a dull level of mediocrity, relieved only by the few scattered Cambridge graduates. It would mean taking from them all the incentive and example afforded by mixing with men of greater talents and application than themselves, and we should have, as the result, a dozen schools of dunces, and one of prigs.

After all, has not the whole discussion arisen out of servility to a word? Is it necessary that a university should always imply the combination of the teaching and the degree-giving functions? Are we not to be allowed to modify its connotation with the changes and the specialisations that time brings about, just as we have modified and restricted the meaning of the word "physician"? We think it would be difficult to show that the University of London—a mere examining board—has had less influence on the teaching of medicine than the University of Edinburgh with all its array of professors. The influence of the latter has been more visible perhaps because more concentrated, but the former has raised the standard of medical education not only in all the metropolitan and provincial schools of medicine, but at the University of Cambridge and even at Edinburgh itself. For our own part, we would willingly see the University of London taking some share in medical teaching—not, however, as replacing or directly controlling the function of the hospital schools, but rather as supplementing it. We would gladly see it provided with working laboratories and a staff of professors whose aim would be to give that advanced medical instruction which is now so generally neglected. Courses of lectures on medicine, surgery, pathology, medical chemistry, insanity, hygiene, epidemiology, &c., to be attended by graduates before taking their M.D. degree, might be delivered with the greatest advantage to the extension of the higher medical training. By undertaking such a duty the University of London would supply a much more needed want than if it were to enter into the lists with the modern Athens, or seek to gain the fees and suffrages of College passmen.

A QUESTION OF PRIVILEGE.

In the debate on the Army Estimates, many important matters affecting the future of the Army Medical Department were discussed, and on very many points the intentions of the War Minister were declared clearly enough. It was perfectly plain that he had made up his mind to strengthen the Department, to unite with it the Army Hospital Corps, to hand over to the doctors the command of their own hospitals, and to stand fast by unification. He ignored the traditions of the Horse Guards, to the extent even of abolishing the combatant command of the great prize, Netley; and he held out no hope of the resurrection of the old regimental system, when each surgeon was the friend, confidant, and factotum of his own particular corps, and of nobody else. But the Secretary for War broke down sadly when he had to face the privileges of the Household Cavalry, and their special arrangements for the treatment of their sick troopers in London. It takes a bold man to defy "Society," and not even Lord Hartington dared to defy "London Society," as illustrated by the Household Cavalry. It had been proposed to establish a grand Military Hospital in London, where medical officers of the Department might serve on their return from long service in the colonies, and be enabled to refresh their memories and perfect their skill, by visiting the great civil hospitals in London. The members of Lord Morley's Committee had highly approved of such a scheme. They said, "We are of opinion that the Medical Service of the Household Troops should be assimilated to that of the Army at large. The present organisation is injurious alike to individual officers and to the general service. To the officers, because it excludes them from the experience gained in foreign service, and consequently from advancement to the higher grades of their depart-

ment; to the service generally, because the monopoly of London appointments by the medical officers of the Guards, excludes the officers of the Medical Department generally from all chance of serving there, and thus gaining access to the medical schools and hospitals of the metropolis. We attach great importance to this point, for it is highly desirable that as many Army Surgeons as possible should, at some period of their career, have opportunities of visiting large civil hospitals, where the cases are of a far more serious and varied nature than those which usually come before them, and thus of keeping themselves informed of the progress of medical and surgical science." No doubt the Minister for War has studied this opinion, and, as a man of sense, he must have approved of every word; but what was he to do or to say when "the colonels" rose in their wrath and asserted privileges? No wonder he spoke of the hospital of the future in uncertain accents. The idea was good, but, he said, "it cannot be entertained until the question of Regimental Hospitals has been thoroughly disposed of; but that cannot be disposed of for some time to come." The medical arrangements of the Household Cavalry stand in the way! Here, indeed, is a tremendous puzzle to be solved.

The Service generally requires a London Military Hospital, but the Hospital cannot be built until the medical arrangements of the Household Troops are changed, and they cannot be changed until the great London hospital is built. Somebody must evidently give way, and for the present it is the Medical Department, the patients, and the public generally who have to suffer, that the privilege of the Guards may remain intact. Lord Morley's Committee would have made the Household Cavalry give way. They said, "The evidence which we have received proves conclusively that it is unadvisable that the Household Troops and the rest of the Army should be worked under different and to some extent independent systems." It may be that Lord Hartington is trying to find out the meaning of the words, "to some extent independent systems." It is a curious thing that nobody knows the relative position of a medical officer of the Household Cavalry to the head of the great Army Medical Department. Worse even than that, nobody understands the relative position of a surgeon in the Life Guards to his supposed superior, a Surgeon-General of the Medical Department, in time of war! There is some tradition, perhaps, and maybe some obsolete custom or privilege, which implies independence, but on reading the evidence given before Lord Morley's Committee it is perfectly clear that the Director-General himself is doubtful of his authority over the medical officers of the Household Cavalry, and that among these there exists a question as to the Director-General's power of appointment to the medical charge of the Household Cavalry, even during a campaign! It surely cannot be right that the Guards' "privilege" should enable a Surgeon of the Household Cavalry to recommend that the arrangement of the Army Medical Department should be interfered with for the benefit of his own particular corps. It cannot be maintained that "privilege" should give a "Guards'" medical officer the right to refuse compliance with the orders of his undoubted superior during a campaign, and no one would wish to see a Surgeon Major of the Household Cavalry permitted in future wars to occupy what one witness described as a *unique position* in the Egyptian expedition. Perhaps when the Secretary for War has had time to consider the relative position of the medical officers of the Household Troops, and the Army Medical Department, he may be able to draw up "a memorandum" which will abolish "unique" action in time of war, and also permit of the establishment of a Central Military Hospital in London where medical officers of the Guards may, without loss of dignity, serve under their superiors of the Army Medical Department, and yet retain their regimental position. If the regimental system was ever a necessity, it was undoubtedly so in the Guards. The habits and expenses of London life in Society cannot be shared by all doctors alike, and we should be sorry to see the Household Brigade made uncomfortable by having uncongenial men thrust upon them; but "privilege" seems to go too far when it extends to the prevention of the institution of a great Military Hospital in London.

CLINICAL PAPERS.

XI.—Cerebral Syphilis.

The extraordinary interest which has been developed with regard to diseases of the central nervous system during the past twenty years, has not only led to a very great increase in our knowledge of the physiology of the various regions of the brain, but has also directed attention to what in one sense may be regarded as of even greater importance, namely, the frequency with which syphilis occurs as the *fons et origo mali* in this class of disorder. Indeed, on glancing over the literature of the subject, it would appear that the effects of syphilis on the brain are both better understood and more generally recognised than on any of the other viscera. Gummata in the liver are, it is true, perfectly well known in the *post-mortem* room, but he who ventures to diagnose syphilitic phthisis from the history and physical signs alone must be prepared to find himself regarded as a man with a hobby. Of all the viscera in regard to which we are not able to use the sense of sight to aid us in diagnosis the brain is the only one, a given lesion of which we can, with reasonable certainty of being correct, ascribe to the effects of syphilis.

Syphilis may attack the brain substance itself, its membranes, or its arteries. This is not the place to enter upon a minute description of the pathological changes which take place in each instance; suffice it to say that in the arteries the change consists in a proliferation of cell elements beneath the endothelium, causing a bulging inwards and gradual obliteration of the lumen of the vessel, the final step being generally the formation of a thrombus owing to the great obstacle to the circulation at that point. In the meninges a fibroid change is common; it is not usually diffuse, and is often associated with gummata in the dura mater;

the pia mater may be affected alone, or there may be a diffuse meningo-encephalitis. In the brain itself syphilis gives rise to either gummata or sclerosis; the latter has its usual seat in the cortex, the former are most common at the base and in the central ganglia. The manifestations of syphilitic encephalopathy, as some of our Continental neighbours would say, appear most commonly from three to ten years after the primary infection, but they may be delayed till a much later period, or, on the other hand, they may come on within a few months of the original malady. To this latter class we shall not further allude, except to say that when the symptoms of an affection of the nerve centres appear thus early, the disease usually proves not very amenable to treatment. Hereditary syphilis, too, affects the nervous system, giving rise to meningitis, arteritis, and gummata, or sclerosis in the brain. Of these, contrary to what takes place in the acquired disease, sclerosis is more common than arteritis, and gummata may be considered as somewhat rare.

Headache is usually the first warning, the earliest manifestation of intra-cranial syphilis. Its prominent characters are that it is apparently causeless, lasting, and liable to exacerbations, especially at night. It may be diffused, but often appears to be localised; if percussion over the spot indicated increases the pain, the inference would be that there was a meningeal gumma beneath that spot. Some writers go so far as to regard a persistent severe headache with nocturnal exacerbations as pathognomonic. Amongst the symptoms which may be associated with headache and which are of value in diagnosis, are, transient attacks of giddiness, and temporary disturbances of the senses; in more severe cases the feeling of vertigo may become permanent. Aphasia, too, is a not very infrequent occurrence, whether transient or lasting; but the most important symptom at this stage is the condition which has been described as syphilitic coma, though, as pointed out by a recent writer, the condition is one of prolonged somnolence and mental obfuscation, and does not merit the name of coma. This state may last a month or more and is generally of bad augury, though complete recovery is by no means impossible. During it the patient takes little or no notice of what is going on around him, though he can be roused to answer questions; but if he recovers it is found that he has a much better knowledge of the events that have been taking place about him than would have been expected.

The motor phenomena associated with syphilis are very important, hemiplegia being the most common. When a moderately young man, who presents no other signs of disease about him, and who has not suffered from rheumatic fever, develops a hemiplegia preceded for a varying time by headache, and coming on without loss of consciousness, or convulsion, the presumption of a syphilitic arteritis would be so strong that one would be tempted to feel that if the patient denied having had syphilis the onus of proving that he had not ought to lie with him. Other motor paralyses might be present which would greatly facilitate diagnosis; certain of the cranial nerves, for instance, are very commonly affected. Paralysis of the third, fourth, or sixth nerves, or of some or more of them, is very common; indeed, a combination of several ocular paralyses would be almost proof of syphilis. Or the association of some ocular paralysis with a brachial or crural monoplegia, pointing as it would to a double lesion, would be strongly suggestive of syphilis. One character that all these motor paralyses have in common is that often they are transitory, changing almost from day to day. Sensory paralyses, though not unknown, seem to be by no means so frequent as motor, a fact for which an explanation is still wanting.

From the fact that meningo-encephalitis is a not uncommon form for the disease to assume, it will be readily understood that the symptoms may sometimes most closely simulate those of general paralysis of the insane, if indeed the true disease is not set up thereby; but the consideration of this aspect of our subject must be left for a future occasion.

As regards the so-called syphilitic epilepsy, there is nothing, either in the seizure itself or in the mode of onset, which will enable us to distinguish epilepsy due to syphilis from the ordinary form, but in the former the aura is more often absent, the attack is more likely to be unilateral, and the intervals are said to be less exempt from morbid disturbances than is the case in ordinary epilepsy. After a series of attacks it is not uncommon for hemiplegia to be established on the side most affected in the syphilitic variety. An epilepsy coming on after thirty years of age is more likely to be syphilitic than not. Π

REVIEWS AND NOTICES OF BOOKS.

Hay Fever, its Ætiology and Treatment; by MORELL MACKENZIE, M.D. Lond. London: J. and A. Churchill, 1884.—This is a condensed but very complete account of a most interesting pathological condition, the subject being treated with that conscientious thoroughness which distinguishes all Dr. Mackenzie's literary work. The essay is written on the scheme adopted in the author's well-known manual of "Diseases of the Throat." An exhaustive account of the bibliography of the disease is given, and its ætiology is discussed with fulness and fairness. The symptoms, diagnosis and prognosis are described in the light of the considerable experience the author has collected on the subject. The directions given as to treatment are rational and scientific, and should be consulted by every one who is called upon to prescribe for this intractable malady.

Medical Fashions in the Nineteenth Century; by EDWARD T. TIBBITS, M.D., Lond. London: H. K. Lewis, 1884. This is a readable little book and may have a beneficial effect on the minds of superstitious practitioners, but the sensible and educated physician will find in it no thoughts except those with which he is thoroughly familiar. The sceptical frame of mind is a very valuable one in a medical writer, and a thoughtful and suggestive book written from the sceptical standpoint, with full and accurate knowledge of the subject, would be a welcome addition to medical literature. But Dr. Tibbits, especially in dealing with the "battle of the bacilli" as he calls it, evinces that he has not taken the trouble to master his subject, or, if he has, he has shown singular perspicacity in attacking the weak points, and ignoring the strong ones in the theory which he opposes. His frame of mind is indeed one with which we entirely sympathize; but at the same time we cannot forget that the opposite quality of intellect, the sanguine and enthusiastic, is equally necessary to safe progress. In a world of sceptics, there would be no discoveries.

ABSTRACTS AND EXTRACTS.

OBSTETRICS AND GYNÆCOLOGY.

THE CAUSES OF THE SHAPE OF THE PELVIS.—A recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie* contains a paper by Dr. J. Veit, of Berlin, on the above interesting subject. The elucidation of the subject, from a mechanical point of view, is chiefly due to Litzmann in Germany, and Matthews Duncan in this country, whose method has been followed, in their able contributions to our knowledge, by Leopold and by Champneys. Litzmann's fundamental proposition is, that the shape of the pelvis depends upon the co-operation of four factors:—(1) The tendency of the bones to grow in a particular shape. (2) The weight of the body. (3) The resistance of the pelvic bones and cartilages. (4) The pressures and traction produced by the muscles attached to them. Taking as a starting point the pelvis of the new-born child, he seeks to explain the production out of it by the different forces named, of the various forms of deformed pelvis. His views obtained very wide acceptance, but lately they have been opposed, chiefly by Kehrer, Fehling, and Schliephake. The paper of Dr. Veit is devoted to examining some of the objections raised to Litzmann's views by these authors. One of their main arguments is based upon the so-called fœtal rachitic pelvis—a pelvis that is met with in the fœtus, therefore produced by forces acting in utero, and much resembling the rachitic pelvis of the adult. While the child is floating in the liquor animi, the weight of the trunk cannot possibly be operative in altering the shape of the pelvis, and thus if the rachitic pelvis can be produced in utero without the pressure of the body weight, it follows that this pressure cannot be an important factor in the production of this shape of pelvis in extra-uterine life. Dr. Veit points out that those pathologists, Virchow among them, who have investigated the morbid condition present in these fœtuses, are of opinion that the disease is not rickets. (As we are writing for English readers, we may mention that the subject was brought before the Pathological Society some time since by Dr. Thomas Barlow, who pointed out the differences between this disease, which is a cretinoid condition, and genuine rickets.) If, then, these pelves be not ricketty, inferences drawn from them as to the production of the ricketty pelvis fall to the ground. But further, Kehrer has described ricketty pelves in *children*, and these show the transition between the normal shape of the fœtal pelvis, and the adult ricketty pelvis that might have been expected if Litzmann's views were correct. The latter author has laid much stress, as might be expected, on the study of the normal fœtal pelvis. This branch of the subject has been well worked at by Fehling, who has advanced our knowledge of it by most careful measurements. Dr. Veit examines these, and adduces also measurements made by himself and by Dr. Carl Ruge. From these he shows that the sacral promontory, which in later life lies in the plane of the pelvic brim, in the fœtus is situated *above* the brim. He holds that allowance must be made for this difference before inferences can be drawn from the comparison of the fœtal and adult pelves. Dr. Veit draws another argument from the shape of the pelvis which accompanies congenital dislocation of the hip. When this deformity is met with in the adult, a characteristic shape of pelvis is associated with it; but in the fœtus, no such peculiarities in the pelvis have been met with, showing that the effect of this dislocation upon the pelvis must be produced subsequent to birth. Dr. Veit's general conclusions are the following: "The flat pelvis, rachitic or non-rachitic, of the adult, is not identical in its characters with the pelvis—either normal or so-called fœtal rachitic—of the fœtus. The pelvis of the adult differs essentially from that of the fœtus; and the change from the shape of the one to that of the other, can only be explained by forces acting in extra-uterine life. Pathological shapes of pelvis occur in utero, but they are essentially the result of general and local malformations, and stand in no genetic connection with similar shapes of pelvis occurring in the adult. Litzmann's explanation of the origin of pelvic deformities, by the pressure of the body weight, &c., is necessary for their comprehension; the other forces which have been invoked are either too indefinite in their effects, or their potency has been over-estimated.

THE "PELVIS JUSTO ÆQUALIBITER MAJOR."—A recent number of the *Archiv für Gynäkologie* contains a paper by Dohrn on the above subject. He has made a series of careful measurements, to determine whether this pelvis is really one enlarged in all its diameters, or whether there are not some points in which it differs from the normal pelvis. He finds that there are. At the brim, the oblique and transverse measurements are shorter in proportion to the conjugate than in the normal pelvis. In the cavity the antero-posterior diameter is relatively shorter and the transverse diameter relatively larger. At the outlet the transverse diameter is relatively diminished. The posterior superior iliac spines are relatively nearer, and the anterior superior iliac spines relatively more distant, than in the pelvis of normal shape; that is to say, the iliac bones look slightly more forwards. The sacrum also is proportionately narrower. Lastly, the angle which the plane of the true conjugate makes with the anterior wall of the pelvis is less than in the normal pelvis. These conclusions are based upon the measurement of ten pelves of the variety in question.

SOURCE OF SUGAR DURING LACTATION.—At the meeting of the Biological Society of Paris on April 19th (*Gazette des Hôpitaux*, April 26th), Dr. De Sinety offered some remarks on the relation which exists between the mammary secretion and the presence of sugar in the urine. In the normal condition of lactation the urine presents no traces of sugar, this only occurring when the secretion of milk is arrested or impeded, and disappearing when the secretion takes place regularly and abundantly. Professor Paul Bert recently (*Medical Times and Gazette*, April 12th, p. 496) reported to the Académie des Sciences the results of some experiments with the object of determining the origin of the sugar of milk, whether it was formed either in the mammary gland or pre-existed in the blood of the general circulation. M. De Sinety has made the same experiments, and, after the extirpation of the breasts, he has only met with sugar in the urine. Professor Bert first met with contradictory results from his experiments, but having finally found sugar in the urine, he contended that it had existed in the blood and was probably furnished by the liver. To his view Dr. De Sinety opposes the fact that in a case of this kind analysis exhibited no increase of sugar in the blood, as it should have done were Professor Bert's views correct. As to the part he attributes to the liver in the production of this sugar, it is a mere hypothesis, for the parallelism which it supposes to exist between the glycogenic function of the liver and the quantity of sugar existing in the milk has in nowise been demonstrated to exist.

LAPAROTOMY IN TUBAL PREGNANCY.—In a recent number of the *New York Medical Record*, an account is given of what is believed to be the first occasion in which laparotomy has been performed in a case of hæmorrhage from rupture of the Fallopian tube. Dr. Braddon performed the operation two hours after the diagnosis had been made, the patient being already in a state of collapse. A considerable quantity of clotted blood was removed, and a rupture of the left Fallopian tube discovered. Ligatures having been passed through the broad ligament, the ovum was removed entire, and the hæmorrhage controlled. After some signs of rallying, the patient eventually died 47 hours after the performance of the operation. At the autopsy it was shown to be a case of tubo-interstitial gestation, the portion of the tumour encroaching on the uterus being filled with adherent coagula. Notwithstanding its fatal issue, the operation proves that the point of rupture in these cases may be reached without difficulty, and that the bleeding parts may be effectually secured; and there can be no doubt but that the patient would have had a better chance could the operation have been performed earlier. Her eventual recovery would, however, have been very unlikely even then.

. Influence of Menstruation and Pregnancy on the Blood Corpuscles.—Dr. Maurel terminates a paper, in the *Archives de Tokologie* for December, with the following conclusions:—(1) The number of red corpuscles in women is always less than in men of the same race. (2) This inferiority is due to the menstrual flux, which diminishes their number in a very marked manner during the following fortnight. (3) This law holds good in European women as well as in Indians and negresses. (4) The white corpuscles are more numerous, especially as compared with the red, in women than in men of the same race. (5) The white corpuscles pretty nearly pursue an inverse course to that of the red, being numerous during the menstrual period, and then diminishing until the next period. (6) The observations made during pregnancy are as yet too few to obtain a clear idea of its influence; but it would seem that the increase in the number of red globules observed as the menstrual period recedes, continues, when, under the influence of pregnancy, the hæmorrhage is not reproduced. This increase may even go on to the third month, when, under the influence of causes as yet unknown, the number diminishes again, to increase once more towards the seventh month. But while ascertained facts should be borne in mind, further observations are required to render them conclusive.

Corrosive Sublimate and Iodoform in the Puerperal State.—Valuable information is obtainable from the report of the discussion (in the Fifty-sixth Congress of German Physicians and Naturalists) on Kehrer's paper on Sublimate Injections (*Archiv für Gynäkol.*, Bd. xxii., Heft 1). Mercuric chloride is shown to be odourless, and cheaper and more soluble than carbolic acid. Keustner, who obtained the uterine secretions by means of tubes direct from the interior of the womb, discovered that the micrococci, which normally abounded in them, disappeared promptly after sublimate injections, but only slowly after carbolised injections. Bardelehner's experiments seem to show that a solution of 1 in 10,000 is sufficiently energetic. Ehrendorfer contributes an important paper, "Ueber die Verwendung der Iodoformstäbchen." He recommends iodoform pencils containing 90 to 150 grains of pulverised iodoform, and fifteen grains each of gum arabic, glycerine, and pure starch, which are easily soluble and flexible; they are thus readily introduced into the uterine cavity, after the genital tract has been irrigated with an antiseptic lotion. The iodoform was only used as an intra-uterine pencil in labours which were abnormal, or which were followed by purulent endometritis, &c. He reports in detail 29 cases, nearly all severe, in several of which the patient's condition was rendered desperate by the existence of gangrene, erysipelas, and other serious complications. König has shown that iodoform intoxication is rare when not more than ten grammes (about 150 grains) of pure iodoform are applied.

"Woman" and "Ovary-Man."—Professor Goodell, in a clinical lecture on removal of the ovaries (*Philadelphia Medical Times*, December 29th) observes:—"As I have often said to you, the word 'woman,' or 'womb-man' is a misnomer. She is a woman because she has ovaries, not because she has a womb. A woman who is born without ovaries remains a child and undergoes no development, while, on the other hand, many a woman is born without a womb, and yet has all the development and attributes of womanhood. The scientific label of woman should be 'ovary-man.'" Of oophorectomy Dr. Goodell says, "The operation is still young, and, I think, has been abused, and is in danger of being abused. It requires the utmost caution on the part of the surgeon to decide whether or not to remove the ovaries. The extirpation of these organs does not unsex the woman in regard to her appearance, or to her place in society—it simply prevents her from having children There are several cases reported in which both ovaries have been removed by careful surgeons, and yet the woman has, months or years afterwards, given birth to a child. This has most likely been due to the presence of a third ovary with its tube. I have never met with such a case, but there are numerous instances on record in which a third ovary or ovarian structure has been found in the broad ligaments, apart from the two ovaries."

Premature Labour at the Paris Maternité.—In a paper read some time since at the Académie de Médicine (*Union Médicale*), Prof. Hervieux stated that of the 16,173 deliveries which took place at the Maternité during the period 1861–82 inclusive, 5,236 were premature, or about 32 per cent. During the first six years of the period the proportion was as high as 33·96; while during the last six years it was only 27·50. The proportions did not bear any relation to the fact that the years were years of prosperity or adversity, and Prof. Hervieux, without denying the existence of other influences, believes that the chief cause of the high proportion is the sanitary condition of the Maternité itself, his proportion corresponding to that of its mortality curve. He attaches much importance to the influence of residence in a hospital upon a pregnant woman, the chances of premature labour increasing in proportion to the length of this. As practical conclusions he recommends that during the prevalence of epidemics maternités should be closed to pregnant women, and that at other times they should not be admitted until as near the time of their expected delivery as possible.

A Case of Tubal Pregnancy is recorded in the *Boston Med. and Surg. Jour.* (Jan. 10th). The patient was healthy, aged 32, married two years, and had a normal confinement eleven months before this illness. The symptoms were sudden and severe. At 4 p.m. she experienced pain in the right ovarian region, with faintness and vomiting; at 7 p.m. there was a collapse, and she died four hours later. At the autopsy the abdominal cavity was found filled with blood. There was a rupture of the right Fallopian tube, within which lay the fœtus. The fœtal head presented at the opening, which was about the size of a three-cent silver piece. The following points were noted:—The thinned edges at the site of rupture; the decidua in the uterine cavity; the partially developed placenta, and the chorion villi in process of atrophy; the corpus luteum in the ovary of the opposite side.

Ovariotomy in a Young Girl.—Dr. Duchamp relates in the *Archives de Tokologie*, for January, the case of a girl, eight and a half years of age, who came under his care on account of a tumour situated a little to the right of the umbilicus. It was round and firm, with indistinct fluctuation, and no adhesions to the wall of the abdomen, and was very moveable. Its development had been rapid, and it now by its tension caused some inconvenience. Although its precise seat could not be determined upon, its removal under chloroform was resolved upon. When an incision had been made, the centre of the tumour projected between the lips of the wound and had a very cystic aspect, and after a litre of liquid had been discharged, the mass was drawn out, and proved to belong to the left ovary. The pedicle was seven or eight centimetres in breadth, and was divided by means of Paquelin's cautery and returned into the abdomen, having been tied with antiseptic silk. The tumour proved to consist of the ovary and the greater part of the tube. The child made a rapid recovery.

An Overdose of Chloral During Parturition.—To a young and healthy patient, in her third labour, one hundred grains of chloral hydrate were given, in divided doses, in the course of forty-five minutes, in mistake for three doses of fifteen grains each. The patient became heavy and drowsy, but could be temporarily roused; the pulse was between sixty and seventy per minute; the pains became slow and ineffective. Fifteen minutes after the administration of the last dose of chloral, the membranes were ruptured, and twenty-five minutes later the child was feebly expelled by natural efforts; it was excessively pale, but began to breathe and cry after moderate efforts on the part of the accoucheur, but the skin did not exhibit its natural colour for several hours. The placenta soon followed the child. Two drachms of fluid extract of ergot were given, and half an ounce of brandy. An hour after the birth, the mother was in fairly good condition, and both she and the child made a good recovery.—*Boston Medical and Surgical Journal*, February 14th.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 23RD, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

A Case of Pyelo-lithotomy.

MR. W. ANDERSON read a paper on the above case. The patient, a joiner, aged 20, was admitted into St. Thomas's Hospital, in July, 1883. The symptoms, of nine months' standing, were characterised by the presence of hæmaturia and pain in the left loin, aggravated by exertion and relieved by rest. The urine deposited crystals of uric acid, but contained no admixture of pus. Some fulness and tenderness in the loin, with increase of the area of percussion-dulness, appeared about a week before the operation. An operation was performed on September 10th, 1883, under strict antiseptic precautions. The kidney was reached by an oblique incision three and a-half inches in length, parallel to, and three fingers' breadths below, the eleventh rib (the twelfth rib was not to be felt externally.) On exposure of the organ, a stone was detected by digital exploration in the pelvis renalis, and was reached by incision of the membranous wall of the duct. An attempt was made to extract the calculus by means of the forceps, but failed in consequence of its firm fixation. It was then dislodged by the finger; no hæmorrhage occurred after the completion of the parietal incision. After the insertion of a drainage-tube, the wound was closed with silk sutures, and dressed antiseptically. The progress was uninterruptedly good, except for the appearance of slight toxic symptoms, due to absorption of carbolic acid, on the second and third day after operation. The urine escaped through the wound in small quantity during the first twelve or eighteen hours, after which the whole of the secretion was passed *per vias naturales*. The discharge remained aseptic throughout. The temperature rose to its highest point, 102·2°, on the second day, and sank to the normal level at the end of ten days. The drainage-tube was removed on the seventh day, and the antiseptics were abandoned after the end of the second week. By the middle of October, about five weeks after the operation, the wound had become reduced to a superficial sore, and the patient was able to get up and walk about the ward without pain. The urine presented only a trace of albumen and a few cell forms. He was discharged cured on the 1st November. The calculus weighed 60 grains when entire, and consisted chiefly of calcium oxalate, with about 10 per cent. of uric acid and traces of magnesium phosphate. It was shaped like a molar tooth with a rough crown and two fang-like processes, between which was a circular sharply marginated depression. A piece of renal substance had become embedded in the depression, and was so firmly adherent that it was torn away from the organ during the extraction of the stone. The case was referred to as the eighth of the published examples of operation for removal of a stone from the kidney by incision through the healthy parietes. Of the eight cases seven were successful, one ended fatally. The main element of the calculi was uric acid in two instances, calcium oxalate in four, and calcium phosphate in two; and the weight ranged between 26 grains and one ounce. The operative procedures differed principally in the treatment of the kidney; in six cases the stone was reached by section of the renal substance; in two by incision of the pelvis renalis; severe hæmorrhage resulted in two of the former group, but was checked by pressure. The cure was perfect in the cases of recovery, and in no instance was permanent urinary fistula a sequel; the secretion ceasing to flow through the wound after an interval ranging from eighteen hours to eighty-one days. The name of pyelo-lithotomy was proposed to distinguish cases in which the stone was extracted through an aperture in the pelvis renalis from cases of nephro-lithotomy in which, the renal parenchyma was incised for the same purpose. It was suggested that the former procedure, when practicable, was preferable to the latter on account of the removal of the danger of wounding the large vessels in the neighbourhood of the ileum, while in the two cases in which the plan had been adopted, the flow of urine through the wound speedily ceased, before the end of eighteen hours in one instance, on the sixteenth day in the other. As incidental points for notice in the case recorded, mention was made, firstly, of the absence of the enlargement or displacement of the kidney that might have been anticipated from the lumbar fulness, dulness, and tenderness observed before the operation; and secondly, of the impossibility of distinguishing the twelfth rib by external examination, the lowest palpable rib being the eleventh, a peculiarity which, if undetected, might bring the pleural sac into danger.

Mr. R. J. GODLEE congratulated the author of the paper on his success. He thought that if any further operation should be necessary in the case it would be better to have recourse to nephrectomy. In these cases, in which several small stones had been discharged, it not unfrequently happened that the pelvis and calices of the kidney contained a large number aggregated together. To make a titular distinction between the operation through the renal tissue and that through the pelvis seemed hardly necessary. He did not think that any severe hæmorrhage need be dreaded on section of the kidney, whilst the process of opening the pelvis of the organ necessitated deeper section. In a case of his own he had been able to make his way to the stone by means of tearing with the finger-nail, and the result had been satisfactory.

The PRESIDENT enquired whether any manifest errors of diet had been detected in the previous history of the case.

Mr. HENRY MORRIS considered that experience was not yet sufficiently large to warrant any definite opinion being given as to operating through the renal substance or through the pelvis. The best rule would probably be to attack the stone through whichever of these tissues it could be most easily felt. To propose a new name would complicate matters unnecessarily. Hæmorrhage on dividing renal tissue was generally controlled with ease, and probably by the process of tearing with the nail the risk of hæmorrhage would be still further lessened. Further experience was required to show whether the tendency to form renal fistula might be greater through one part than through another. In a case of his own no escape of urine to speak of had occurred through the wound during the first 24 hours, and none had passed since. He thought that surgeons would now be justified in searching the kidney very fully, in cases where the clinical evidence of the presence of stone was undoubted. In one case he had removed an otherwise healthy kidney after seeking in vain for a stone, which was only discovered with some difficulty afterwards. He thought that in women, and perhaps also in men, the bladder should be explored by the finger, owing to the frequency with which stones may become impacted in the orifice of the ureter, especially where bladder symptoms had been complained of. He related a case in his own experience in which this condition was present.

Mr. ANDERSON in reply stated that in the general habits of his patient there had been nothing to give a clue to the causation of the calculus. The pain had been exclusively on the left side, and hence the stones had probably not come from the right kidney. He agreed in the advisability of attacking the stone through the pelvis or through the renal substance according to the conditions present in each

case, but thought that where no special indication was given, the pelvis should be selected.

Sequel to a Case of Aortic Aneurysm.

The SECRETARY, for Dr. FINLAY, read notes on this subject. The case was first brought forward, and the patient, a female, aged 32, shown at a meeting of the Society on the 10th February, 1882. A full report appears in the "Transactions," vol. xv., p. 151. She presented well marked signs of a sacculated aneurysm of first part of the aorta, with aortic and mitral incompetence, and had been treated for six months in the Middlesex Hospital, on Tufnell's plan of restricted diet in the recumbent position, with increasing doses of iodide of potassium. For two years and a-half subsequently she had attended as an out-patient, having taken almost continuously iodide of potassium in considerable doses. The question proposed for discussion when the patient was shown, was the propriety or otherwise of operative treatment by electrolysis, or the distal ligature, the arguments for and against which were stated in the paper then read. As, independently of other considerations, she was unwilling to be again laid up in the hospital, it was resolved merely to continue the treatment with iodide of potassium, and she attended regularly at the out-patient department once a fortnight, until her death, which took place on March 26, 1884. On the last occasion on which she was examined (viz., on 18th January, 1884), she stated that she felt better in her general health than she had done when first shown at the Society's meeting in 1882. As to her physical condition, the notes then made were practically the same as those read on the former occasion. On March 22, however, she was seized with shortness of breath, cough, and pain in the chest, and she died on the 26th with symptoms of bronchitis and congestion of the base of the left lung. At the *post-mortem* examination the aneurysm was found to be adherent to the cartilages of the second, third, and fourth ribs on the right side, and to the adjacent part of the sternum. The sac, which was divided into two parts by a calcareous ridge, sprang from the aorta immediately above the aortic valve, and contained some loose, soft, decolourised clot. It was roughened and thickened by patches of atheroma, which had proceeded in many parts to calcification. Part of the sternum and of the cartilages of the third and fourth ribs was croded. The cusps of the aortic valve were thickened, puckered, coherent, and obviously incompetent. The muscular substance of the heart was pale and soft, and under the microscope showed advanced granular degeneration. The lungs were œdematous, and the base of the left was congested and pliable, breaking down under pressure with the finger. The results of the *post-mortem* examination bore out the conclusions arrived at when the case was first brought forward. In particular, the condition of the aortic valve established the fact of the aortic regurgitation, regarding which doubts had been expressed when the patient was shown. As to the effect of treatment, there was no deposit of fibrin or consolidation of the sac. Probably all the methods of treatment used acted in the same way by lowering the blood pressure. It was worthy of note that the aneurysm was not directly the cause of death, which was due rather to the degeneration of the heart's substance, consequent upon the incompetence of the aortic valve.

No discussion followed.

Two Cases of Hernie en Bissac.

Mr. GOLDING-BIRD read a paper on these cases. The first was that of a woman, aged 47, on whom he had operated in 1878 for right femoral hernia, opening the sac and removing omentum. In December, 1880, he again operated for fresh strangulation, and then found the peculiar condition described, of which however there was no mention in the notes of the first operation; presumably, therefore, it had developed subsequently. Now, besides the usual and large hernial sac, there was, leaving it at right angles, a process of sac just the size and shape of the finger (thumb) of a glove, and passing down into the right labium. It left the parent sac just below the pubic spine. The main sac was, at the close of the operation, dissected up and removed, being ligatured at its neck; but the labial portion, being firmly attached, was cut off and left *in situ*. There appeared to be every prospect of a radical cure resulting. Though strictly the term *en bissac* was applicable only to inguinal hernia, yet he had employed it here, so exactly did this hernia agree with the requirements for that condition, save in regard to its position in the thigh. The other case was that of a woman, aged 60, with twenty years' history of left inguinal hernia. After wearing a truss the first ten years it disappeared until two years ago, when, in addition to the inguinal protrusion, there developed a large and subcutaneous tumour, lying above Poupart's ligament and between the crest of the ileum and the external abdominal ring. Twice it had appeared and then in a few days nearly subsided, but failed to do so on a third occasion, the beginning of this year. Kelotomy was performed, and it was then found that whilst the original hernial protrusion existed at the external ring, a large and laterally-connected sac had burst through the front part of the inguinal canal, leaving only a broad external pillar, and lay in the aponeurosis of the external oblique. The bowel was relieved, after division of the internal ring, without opening the sac; this was then opened and much inflamed omentum removed. The patient sank from exhaustion on the third day. Mr. Golding-Bird referred to a case of Mr. Luke's, published 30 years ago, almost identical with his own; but the great peculiarity of this case he considered to be in the double sac; the absence of taxis or any violence ever having been employed to induce its formation; its bursting through the external oblique fibres in front of the canal, and its subcutaneous position, that of intra-parietal herniæ being always inter- or sub-muscular.

The paper did not give rise to any discussion.

A Case of Impaction of Bone in the Larynx.

Dr. FREDERICK TAYLOR read notes of a case contributed by himself and Mr. Golding-Bird. A man, aged 63, came to Dr. Taylor as an out-patient, with a cough which he had had for more than five months. Though he did not complain of his throat, a slight stridor led to an examination of the larynx, when a foreign body, resembling bone, was seen lying below the cords, and extending from front to back of the larynx. It appeared to be about ¼-inch broad, but there was breathing space on either side of it, and on phonation the cords closed easily over it. On being questioned, he remembered that four months previously he had taken some sheep's head broth, and half-swallowed with it a piece of bone. This stuck in the back of his throat, and he was unable to move it with his fingers; but his wife with the tablespoon pushed the bone down his throat, and he thought it was safely disposed of. For a week his throat was sore, and for two or three days he spat some blood, but since then he had not had any inconvenience from it. He was admitted into the hospital, and was found to have the physical signs of emphysema, with expectoration of much frothy mucus, and metallic cough, preceded by stridulous inspiration. After a few days he was transferred to a surgical ward, and Mr. Golding-Bird proceeded to remove the bone by laryngotomy. On dividing horizontally the

crico-thyroid membrane, and putting in a tracheal dilator, the bone was at once seen, and removed with Toynbee's ear forceps. A second smaller piece, the size of a pea, was seen impacted in the mucous membrane covering the cricoid, and also removed. The patient made a rapid recovery, and when seen again, two years later, the larynx appeared normal; the cords moved freely, but were slightly pinker than usual. The larger piece of bone removed measured ¾-inch in length, ⅝-inch broad, and ¼-inch thick. Attention was called to the large size of the foreign body, the curious way in which it became impacted, its long retention without inconvenience to, and, indeed, without the knowledge of, the patient. Its large size, and the apparently firm impaction below the cords led to the adoption of the external operation rather than its removal by the mouth.

Dr. DE HAVILLAND HALL asked if any attempt had been made to remove the bone by the forceps. He thought that such a proceeding would have been quite feasible, and was generally preferable to any external laryngeal operation, which could not be altogether free from risk. In the present case the operation had been in every way successful, but he thought that an attempt at endo-laryngeal removal should always be made in such cases.

Dr. COUPLAND mentioned two cases of impaction of bone in the larynx. In one case the fragment had proceeded from an area of necrosis in the base of the patient's own skull, and in the other a large mass of bone had found its way into the air-passages and remained undiscovered, although giving rise to pleurisy and pneumonia at intervals of several weeks, until brought to the surface during a violent fit of coughing.

Mr. GOLDING-BIRD had not used the forceps in this case, because the bone had been impacted for a long time, and lay fairly below the vocal cords. It was seen by the laryngoscope to be lying with its broadest surface uppermost, and presented nothing for the forceps to grasp.

Dr. F. TAYLOR thought that the endo-laryngeal operation would have lacerated the laryngeal tissue considerably; the bone was in two pieces, and the removal of the larger fragment might have allowed the smaller to drop into the trachea. Division of the crico-thyroid membrane did not appear to be a very serious operation.

The PRESIDENT referred to the six papers which still remained to be read, and appealed to the members to decide whether an extra meeting should be held for the purpose.

After some conversation it was decided by a majority of votes that no further meetings should be held this session.

The following Living Specimens were exhibited:—

(1) Uncommon lateral curvature of the spine, with extreme osseous deformity; by Mr. BERNARD ROTH. (2) Removal of dislocated astragalus; (3) Case in which the intestine was opened, stitched to the sac and returned to the abdomen; (4) Splint for treatment of dislocated internal semi-lunar cartilage; by Mr. HOWARD MARSH.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 27TH, 1884.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

An Average or "Composite" Temperature Chart of Small-pox.

Dr. HERMAN had constructed the charts described in this paper from observations made during the small-pox epidemic of 1871, in a temporary hospital at Shoreditch. These charts were made up by adding together the figures indicating the temperatures in the different cases for the same period of the day, and dividing the total by the number of observations. By this method the average temperature of all the patients from day to day, instead of that of each individual patient, as was the case in ordinary temperature charts was shown.

Gangrene of the Lung Treated by Drainage. Recovery.

Dr. CAYLEY, and Mr. GOULD contributed a paper on the above subject, of which the following is an abstract:—The patient was a girl, aged 12, who was admitted into the Middlesex Hospital, on January 18th. Four years ago she had had scarlet fever, which was followed by otorrhœa. On admission there was an acute abscess over the mastoid process on the left side, and extensive denudation of the bone about the external auditory meatus. The abscess was opened, and Mr. Gould gouged away some soft necrosed bone from the mastoid process. The patient progressed favourably till January 28th, when symptoms of pyæmia developed. She had repeated rigors, with high fever of a remittent type. On February 2nd, signs of pleurisy with consolidation at the base of the right lung appeared. On February 7th her breath became offensive, and she began to spit up small quantities of stinking pus. On February 16th, these symptoms having continued, and the child having become extremely emaciated and prostrate, it was decided to drain the gangrenous cavity. There was now dulness over the right base as high as the angle of the scapula, and at one point some bubbling crepitation. Mr. Gould accordingly punctured the lung with a large sized trocar and cannula, and introduced through the latter a drainage-tube. Stinking pus and a sequestrum of gangrenous lung were discharged through the tube. The child rapidly improved, and was discharged on March 27th.

On the Treatment of Pus-secreting Basic Cavities of the Lung, by the Method of Paracentesis and Free Drainage.

A paper on this subject was read by Dr. BISS. The author grouped pus-secreting basic lung cavities under three heads: (1) Those in which paracentesis is imperatively called for; (2) those in which it is unjustifiable; and (3) those in which it is a question of special difficulty whether it should be performed or not. A case illustrative of the last group was then related. A man, aged 32, with a satisfactory family history, who had not suffered from any previous pulmonary disease, had been affected with cough and profuse expectoration for six months. On admission to the hospital he presented at the right posterior base dulness, reaching as far as the spine of the scapula, with absence of breath-sounds and vocal fremitus. The heart's apex beat half an inch outside the nipple line. The case was regarded as one of abscess at base of the lung with slight effusion into the adjacent pleura. An exploratory puncture failed, however, to detect any fluid. Soon afterwards obscure friction sounds developed over the dull area, and then loud cavernous respiration with intensified voice sounds, the pyrexia and hectic symptoms becoming more marked. About a fortnight later—medicinal means having failed to give relief—a second exploratory puncture was made with negative results, except that the lung was judged to be adherent. The course of the case continuing unsatisfactory paracentesis was resolved on. Professor Marshall made an incision two inches in length along the tenth intercostal space, over the point of maximum intensity of the cavernous sounds, reaching and exposing the pleura; a trocar was then gradually inserted to a depth of four inches, when a cavity was entered, from which whiffs of fetid air were expelled, and a scanty blood-stained discharge flowed. The wound and cavity were temporarily plugged to staunch hæmorrhage, and next day a drainage-tube was inserted, through which a puriform discharge began freely to escape. The symptoms were considerably, but not wholly, relieved. Ten days later signs of cerebral abscess appeared, and in another ten days the patient sank. The autopsy revealed a number of bronchiectatic cavities in the right lung, one of

the largest of which had been pierced and drained by the operation. The lung was invaded by fibroid change, and much contracted. Two abscesses had formed in the brain. The opposite lung and all the other organs were healthy. No miliary tubercle was perceived anywhere. The following diagnostic points were then discussed: (1) The brief history of disease in comparison with the apparently long-standing morbid conditions. (2) The displacement of the cardiac apex. (3) The remarkable alterations which took place, during the course of the case, in the auscultatory signs. (4) The invariable absence of tubercle-bacilli from the sputa, and the inspissated secretions found after death in the lung cavities. In conclusion, the drawbacks and advantages of paracentesis of pulmonary cavities (apart from phthisis) were discussed, and a brief recapitulation of some of the literature of the subject was given.

Mr. Godlee said that there were two principal difficulties which presented themselves to the surgeon when called upon to interfere in such cases as those under discussion: first, the difficulty of ascertaining the exact position of any supposed pulmonary abscess; and, secondly, the impossibility of determining whether or not adhesions between the visceral and parietal pleuræ had occurred. He recommended to the physicians the further development of the "fine art" of localising the position of pulmonary cavities, and mentioned some cases in which, though the physical signs appeared to point clearly towards the existence of such, the insertion of a needle at the spot indicated had failed to discover pus. He pointed out that, although no harm may be anticipated from puncturing the lung even several times, considerable deception might result from tapping a bronchus or a small bronchiectatic cavity, leading the surgeon perhaps to open such a space while leaving the larger cavity of which he was in search unrelieved. To illustrate these difficulties, he mentioned a case under the care of Dr. Biss, at the Brompton Hospital, in which two cavities appeared to be clearly indicated by the physical signs, and in which, from the retraction of the chest and the chronic nature of the complaint, it was thought that it might be assumed that complete adhesion between the two layers of the pleura had taken place. A needle inserted at one spot in the back failed to tap a cavity, but a puncture in the upper part of the axilla seemed to pass into one of them. A piece of rib was then excised (a plan which it was urged it is wise to adopt in order that the surgeon may clearly see what he is doing), antiseptic precautions being observed; but it was found that though the lung was much solidified, and therefore scarcely collapsed at all, very few adhesions had taken place. In this case Mr. Godlee stitched the lung to the opening in the pleura, and after a fortnight, although adhesion was not perfect, another attempt was made by puncturing the lung in various places to open the cavity; but all the efforts were fruitless. It could not be doubted that the cavity was present, for at the end of the operation the child brought up a large quantity of thick stinking pus, showing that the failure to tap the cavity did not depend on the fact of its having been previously emptied by coughing; and it was stated that further attempts would be made to reach it. Mr. Godlee expressed the belief that it need not be anticipated that the entrance of even putrid pus into such a pleura would result in any very serious consequences; but at the same time, that such an accident is not unassociated with danger, and is one that should if possible be avoided. He then detailed another case, now under the care of Dr. Bastian, in University College Hospital, in which he had opened a small pulmonary cavity, resulting no doubt from the breaking down of a pneumonic lung, as illustrating the ease with which the operation may be performed when the circumstances are propitious, and the great benefit which the patient may derive from the operation. In conclusion he exhibited two instruments intended for tapping abscesses of the liver, but which are equally well adapted for a similar condition in the lung—one, devised by Sir Joseph Fayrer, a cannula and trochar, both of which are provided with a groove, so that after withdrawing the latter, the former can be used as a director to guide the knife or gorget or any other dilating instrument which may be preferred; the other a trochar which is provided with a celluloid cannula, which can be left in the abscess and cut off at the level of the skin. This will soften, more or less, at the temperature of the body, and after a day or two can be replaced by an india-rubber drainage tube. It is intended that it shall be fixed in position by tying pieces of silk to the end after cutting it level with the surface of the body.

Mr. Walsham related a case which he had treated, and which was believed by his medical colleagues to be one of a phthisical cavity in the apex. The man was suffering from hectic, and was greatly emaciated. There was a copious and at first fœtid discharge, and the cavity was washed out with carbolic solution; this at first rather increased the discharge; subsequently the carbolic solution was better tolerated, the cavity closed, and the patient was much relieved. Although it was open to consider the case as an apex empyema, yet his medical colleagues had been quite clear that it was not an empyema, but rather a cavity in the lung itself.

Dr. Broadbent had recently had under care an officer from the West Indies. He had gone to America in cold weather and been taken ill. His life had on a former occasion been endangered from some pneumonic affection. A cavity formed in the base of the left lung, from which a quantity of very fœtid pus was continuously expectorated. The patient being in a very desperate condition, he had made into it an opening, and a quantity of pus was let out. The cough was somewhat lessened by the operation, but the temperature remained high, and the hectic continued. A further exploration was decided upon, but meanwhile, after an unusually free escape of pus, the man began to improve, and appeared as if about to recover. He (Dr. Broadbent) then left town for his holiday, leaving the patient under the care of a colleague, it having been decided that he was to start for the South of France on Dr. Broadbent's return. The patient, however, on his own authority started off to the Continent at once in the hottest of hot weather, and he died shortly after his arrival. Dr. Broadbent could, unfortunately, give no other particulars of the case. He thought Dr. Cayley's case an excellent one, but he had some doubts about that of Dr. Biss'; it appeared to him, from the symptoms described, less likely to have been a cavity than consolidation.

Dr. Powell thought the two cases were really illustrations of the two classes of disease which might be expected to benefit by paracentesis and drainage, and in this respect he differed with Dr. Broadbent as to Dr. Biss' case. Dr. Cayley's case was a typical one of a single, pus-secreting abscess, acute in origin. The patient was being exhausted by hectic, and poisoned by his own secretions, and it appeared to him that the treatment which had been adopted was the only treatment from which any good could have been anticipated. In Dr. Biss' case some interference was clearly indicated, because such cavities could not be otherwise drained. As to the physical signs: there was difference of opinion as to their significance, whether they indicated a chronic fibrosis of the lung with numerous bronchiectatic loculations, intercommunicating, or a large cavity. The absence of cavernous breath sounds rather indicated that a large cavity did not exist, but smaller cavities might well exist nevertheless. Gurgling was absent on account of induration of the lung. The advantages of paracentesis were nevertheless great, and served for drainage purposes; the cough and expectoration were diminished, while the presence of a drainage tube in such a cavity established a centre around which cicatricial tissue formed. Dr. Biss' patient had had ample opportunity for getting better, but had not done so; hence he thought the surgeon was called upon and justified in attempting further measures. There were some risks, but these were not greater than the patient ran from the disease itself. He thought there were no signs by which an adherent pleura could be diagnosed: nevertheless, we might judge from pathological analogies, such disease in the lungs would rarely exist without more or less pleural adhesion,

Dr. J. Kingston Fowler said a case had lately been under his notice at the Brompton Hospital for Consumption, which he thought of sufficient interest to be mentioned in this discussion:—The patient was a man, aged 47,

of a healthy family, and who had never suffered from any serious illness previous to November, 1882; when he visited a dentist for the purpose of having a tooth (the second lower molar on the left side) extracted. The dentist in using an elevator allowed the tooth to slip; the patient, feeling something at the back of his throat, coughed and took some water. He then asked to see the tooth, but was told that he must either have swallowed it or spat it out into the basin. Immediately afterwards, on his rising from the chair, he was seized with intense dyspnœa, and from his own account was evidently for a time in great danger of asphyxia. This condition, which was accompanied by violent coughing, passed off in a few minutes, and was followed by a feeling of pain above the right nipple. The cough continued nearly all through the night, and for the next fortnight it was very severe, coming on in frequent paroxysms. He then went to St. Thomas's Hospital, where he was admitted as an in-patient, and remained a fortnight under the care of Dr. Sharkey. His tale of misfortune was completed by finding that the wrong tooth had been extracted. Whilst there, an emetic was tried without effect; he was also inverted, preparation being made for tracheotomy should it prove necessary, but there was no sign of any movement of the tooth. At this time he was expectorating a considerable quantity of frothy muco-pus, which on one occasion only was streaked with blood. About two months after leaving St. Thomas's he appeared among his (Dr. Fowler's) out-patients at Brompton. At that time he was expectorating in the twenty-four hours nearly half-a-pint of this frothy mucus, mixed with flocculent masses, and his cough was severe and paroxysmal. His appearance indicated emaciation, and he stated that since his illness commenced he had lost fifteen pounds in weight; his appetite was bad, he had occasionally night-sweats and flushes, and he felt generally weak and ill. He suffered from dyspnœa and increased cough on the slightest exertion. Respirations were 30 per minute. The pulse was 120, full and regular. The temperature was 99·2° F. He had not had hæmoptysis. On examination, his chest appeared fairly well formed, there was a little retraction of the first and second interspaces at the right apex, and diminished expansion at the right base; vocal fremitus was found to be much diminished below the level of the angle of the scapula. On percussion in the right interscapular region, comparative dulness was noted as commencing at the sixth dorsal spine, gradually increasing in a downward direction, becoming absolute at the angle of the scapula, and so remaining over the area of the lower lobe below that level. On auscultation on the right side, the breath sounds over the supra- and infra-clavicular and mammary regions were rather harsher than normal, and expiration was slightly prolonged. There was a pleuritic friction sound in the lower axillary region, after a deep inspiration. In the interscapular region the sounds were bronchial, but at a spot two inches below the spines of the scapula there was distinct evidence of the presence of a cavity of considerable size. At the left base there were some muco-crepitant râles. The cardiac apex was in the normal position, and the heart sounds were normal. Dr. Symes Thompson, having kindly placed a bed at his disposal, joined Professor Marshall and himself in consultation, and it was decided to puncture the cavity with a view to promote its contraction by securing perfect drainage and, at the same time, if possible, to remove the tooth. They concluded that there could be no doubt that the surfaces of the pleura were adherent over the posterior aspect of the lower lobe. The operation was performed by Mr. Marshall, on March 2nd; the patient being first placed under the influence of chloroform, and afterwards of ether, and full antiseptic precautions being observed, a trocar and cannula of a form suggested by Dr. Hicks, then Resident at the Brompton Hospital, was passed into the lung, at a point two inches distant from the vertebral spines, between the eighth and ninth ribs. The trocar being withdrawn, an incision was made downwards and outwards for an inch, from the point of its insertion, and a gorget, of a form suggested by Dr. Hicks, was slipped along the cannula; both were then withdrawn. At this moment some thick sanious pus, mixed with air, welled up through the wound, and the patient shortly afterwards coughed up two or three times a small quantity of blood. Mr. Marshall then introduced his fingers into the wound, and found that it led to a cavity, in front of which was a dense wall, consisting probably of solidified lung. A probe was introduced, and was found to pass an indefinite distance in a certain direction, when it was clearly in a large bronchus. Mr. Marshall at one time thought he could feel the tooth, but this was rather doubtful. A pair of dressing forceps was passed in and the wound dilated, but nothing was extracted. A dissecting cannula was then introduced, and with a blunt-pointed bistoury a deep incision was made in the lung; this was immediately followed by a considerable hæmorrhage, quite half-a-pint of blood escaping. The cavity was then packed with strips of carbolised gauze, over which several pieces of lint were laid, covered by a many-tailed bandage. The gauze was kept damp through the afternoon, and at 8 p.m. an ordinary antiseptic dressing was applied. At that time his temperature was 99·4° F. He slept during the night after two hypodermic injections of morphia. He had expectorated about six ounces of viscid reddish mucus. On March 5th the gauze plugs were removed from the cavity, a drainage tube was inserted, and an antiseptic dressing applied. The evening temperature was 101° F., pulse 120; cough troublesome, and the sputum muco-purulent. The wound was dressed on March 10th; there was only a small quantity of discharge, similar in character to the expectorated matter. The expectoration was purulent, measuring about five ounces in twenty-four hours. On the 14th the wound was again dressed. There was not much discharge; night-sweats were increasing. On the 18th a careful examination of the chest was made; the cavernous sounds were found to be audible over a smaller area than previously, being most distinct just above the opening of the drainage tube. A probe was introduced for a distance of seven inches; nothing was felt but the rings of a large bronchus. The antiseptic dressings were omitted on March 28th, when his general condition seemed improved, but the night-sweats still continued; further, he had been taking sulphate of atropia, and also quinine and cod-liver oil. During April the night-sweats ceased and the cough became less troublesome; the expectoration averaged from four to six ounces a day; it was purulent in character, and occasionally contained some streaks of blood. On May 29th the patient was again placed under chloroform and the wound examined, but nothing of material importance was discovered. The patient remained in the hospital up to July 14th, the general condition showing improvement, but the local signs did not undergo much change whilst in the hospital. The sputum was frequently examined, but was free from bacilli. He then left for Eastbourne and returned on August 7th. It was then decided that the drainage tube should be gradually shortened so as to allow the opening to close, which it did about the beginning of October, 1883. He became an in-patient again in November, and remained in the hospital through the winter. The expectoration continued to average about five ounces per diem, and was purulent and offensive in character. But little change occurred in the physical signs, which continued to indicate the presence of a cavity in the right lower lobe, which, however, appeared to be considerably smaller than before the operation. At present the patient was in much the same condition, there being still evidence of a small cavity below the angle of the right scapula. The lung around was evidently condensed, a few crackles being audible on inspiration. The patient, he thought, had derived some benefit from the operation, as it was clear that the cavity had undergone contraction on the healing of the sinus. He still continued to expectorate nearly three ounces of muco-purulent fluid a-day, but his general health and strength had improved, and he kept up his weight. There was no evidence of any affection of the upper bones.

Dr. CAYLEY, in reply, said he had little to add to his paper. He thought the Society would hardly fail to gather from what had been said in the course of the discussion, that the lung would bear a very considerable amount of operative interference with impunity. On the whole, he preferred Mr. Gould's method of using a large trocar and cannula, and putting a drainage tube into the lung through it, to Mr. Godlee's plan of incising the lung; there

appeared to be less danger of hæmorrhage. The abscess in the brain had clearly nothing to do with the operation, for of three cases referred to during the evening, in one case there had not been operative interference.

Mr. GOULD agreed with most of what had fallen from Mr. Godlee, as to the surgical aspects of the case, and he considered himself lucky in having hit the cavity. In advocating such a practice as was now being discussed, he reminded the Society that Richter had arrived at the same conclusions 100 years ago, as to the treatment of cavities in the lung. This author thought the cavity should be a single one, not due to tubercular disease, and that the constitution ought not to be undermined, and such appeared to be the view to-night. Mr. Godlee had referred to the desirability of the two layers of the pleura being adherent. He agreed as to this, and believed they were so in a majority of cases; still he thought we made too much of the dangers of their not being adherent. He had just been reading a case published by Professor Krönlein, who had successfully removed a large piece of rib, some pleura, and a portion of adjoining lung for a sarcomatous growth. The record of such cases ought surely to give us courage to proceed; at present we were but just feeling our way.

Dr. BISS said that perhaps an exact diagnosis was not so very important. With symptoms such as had been present, they were justified in making an attempt. In liver abscesses, for instance, they would aspirate and explore, even if they could not accurately locate, an abscess. In the lung it was not by any means an easy matter to locate an abscess with the instruments at present used, which were only trocars about as large as crow quills. In the case of a fibroid lung, collapse did not occur, owing probably to adhesion of the lung. If pleurisy followed, contraction of the lung would necessary result, and close the cavity. Dr. Broadbent appeared to have assumed that his patient had died of the operation. On the contrary, the man died of his disease, and of abscess of the brain, which could not be attributed to the operation.

The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 7TH, 1884.

H. GERVIS, M.D., F.R.C.P., President, in the Chair.

THE PRESIDENT read the addresses of condolence which he had sent on behalf of the Society to her Majesty the Queen and H.R.H. the Duchess of Albany.

The following Specimens were shown.

Dr. CLEVELAND.—A fleshy or deciduous substance voided after labour by a patient who had already voided similar bodies on two previous occasions. It was probably the decidua from the unimpregnated half of a double uterus.

Dr. MATTHEWS DUNCAN.—Microscopical slides of an angioma of the labium majus.

Mr. DORAN.—Ruptured secondary cyst in the wall of a multilocular ovarian tumour.

Dr. HORROCKS.—Rupture of uterus and vagina—longitudinal in direction.

Dr. CHALMERS.—Cyst between tube and ovary, in the broad ligament.

Dr. BANTOCK.—Four fibrous tumours of the uterus removed by operation; the uterus in one case was pregnant.

On Strong Mental Emotion affecting Women as a Cause of Idiocy in the Offspring.

This paper was by Dr. ARTHUR MITCHELL. The author remarks that this cause is often assigned by the mother, but in most cases without sufficient reason, especially as more probable causes can usually be discovered occurring after birth. In some cases, however, he has convinced himself that this is the true cause, especially if the mental state has been protracted, and if the rapidity of developmental changes in the fœtus be considered. Such disturbance may act either as arrest or as misdirection, and probably through the bodily health of the mother. Sudden emotions may in some cases have a similar effect; under such conditions patients have described violent fœtal movements following the shock, and afterwards a cessation of movements for some days. Such movements are probably convulsive, and if so, are quite capable of accounting for permanent mental damage. Mental emotion is known to lead to abortion, sometimes apparently preceded by the death of the fœtus. The paper concludes with an account of 6 cases drawn from 443 cases of idiocy or imbecility consecutively examined, with allusion to 22 other cases, making 28 cases observed in a total of 1,500. In the 22 cases the evidence was less satisfactory.

The PRESIDENT gathered that the effect was presumably produced through the general health of the mother rather than directly on the fœtus.

Dr. WEST remarked that such statistics could not be trustworthy until compared with a similar series, in which no such results had followed from the same causes. The latter class would, in his opinion, prove a large majority. His present opinion coincided with the verdict "*not proven.*"

Dr. FLETCHER BEACH said that, according to statistics collected by him in the Darenth Asylum, fright and other violent mental emotions accounted for about one-tenth of the cases in which histories could be obtained. But in many of these cases there was also intemperance, involving worry and anxiety to the mother, illusage from the husband, pawning of furniture, and want of food. In a large number of cases there was a history of insanity, imbecility, epilepsy or paralysis in the parents.

Dr. CLEVELAND agreed with Dr. West. He related the history of a family of six, three of which (each alternate child) were idiots; both parents were sane, there was a history of insanity on the mother's side, but she had never herself been insane.

Dr. AVELING regretted the absence of histories of insanity and consanguinity from the cases related.

Dr. MATTHEWS DUNCAN observed that Dr. Mitchell did not claim to have proved his theory, but only said he had "convinced himself" of the truth of it. He (Dr. Duncan) thought he had made it highly probable. Dr. Mitchell had already shown that the age of the mother, the number of the pregnancy, and of turning influenced the offspring. Ancell had shown that the injurious or favourable influence of the number of the pregnancy extended over the whole life of the children to adult age, influencing the rate of their mortality. Such facts proved the grave effect of slight causes, and favoured the author's view.

Dr. HEYWOOD SMITH pointed out the omission from the paper of the date in utero-gestation at which the perturbing influence occurred. In physical deformity of the offspring, the mental shock to which the mischief was ascribed by the mother, happened, in his experience, generally between the third and fourth month.

On a Case of Extra-uterine Gestation—Delivery of a Living Child per Vaginam—Removal of Placenta—Recovery.

A paper with this title was contributed by Dr. MATHIESON, of St. Mary's, Ontario. The patient was aged 30, the mother of five children. In November, 1880, menstruation (which had been regular, though scanty for two months) ceased, and abdominal pain began. In December, 1880, a lump was noticed low down in the left inguinal region. She was first seen by the author in March, 1881, when she had a tumour rising to the level of the navel, filling the left vagina region, and extending two inches to the right of the middle line. The uterus could not be mopped out. The sound passed three and a half inches slightly to the right side and in front of the tumour. There was occasional pain in the tumour, tenderness, and a feeling "like jelly moving," which made her feel sick; painful micturition, irregularity of bowels. The

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tumour continued to enlarge, fœtal movements became stronger, and the pain more severe. On April 12th she had an attack of pain and nausea, with pulse 146, temperature 103·6°, cold extremities and cold sweat; relieved by morphia. A similar attack occurred on April 23rd, another on May 2nd, and another about May 18th. On June 2nd a somewhat similar attack was accompanied by pretty regular labour-like pains, independently of fœtal movements, and accompanied by a red discharge. The tumour continued to grow and the most rapidly growing part was always the most painful. On June 13th occurred another attack like the last, but the pains were bearing down, though no bulging during them could be felt per vaginam. On June 28th she had a very severe attack of pain during micturition, followed by attacks of syncope. The roof of the vagina was filled with a doughy mass, solid on deeper pressure. Operation per vaginam was at once decided on, and performed without chloroform at the patient's request, by cutting with a knife and tearing with the finger-nail. The face of the child was found presenting, and was delivered by forceps easily. It was still-born, but soon revived. The placenta was at the posterior and left side of the cavity, its lower border some two inches from the vaginal roof. It was easily peeled off, a sponge soaked in perchloride of iron following it up. There was very little bleeding. The clots were removed from the cavity, its walls were touched with perchloride, and the operation ended. Much exhaustion followed the operation. The child weighed eight pounds seven and a half ounces, and appeared mature. The placenta was three-lobed, but was destroyed before a careful examination could be made. The after-treatment consisted in washing out the cavity antiseptically. The opening healed in three months. Severe pain in the side lasted for nearly two years after the operation. She was seen in August, 1883, in excellent health, had no pain except after great fatigue; had menstruated normally for six months. The child was healthy, the largest, and a great deal the heaviest of the family. The author discussed the treatment pursued (1st) as to the operation per vaginam, (2nd) the removal of the placenta.

The PRESIDENT doubted the propriety of the vaginal operation and of the removal of the placenta. Each case had to be judged on its own peculiarities; but generally he was in favour of primary operation, abdominal section, and leaving the placenta.

Dr. AVELING suggested the possibility of the sac being a secondary uterus.

Dr. PLAYFAIR disapproved of vaginal operation and of the removal of the placenta; the case as related was most extraordinary, especially in regard to the labour pains described.

Dr. CHAMPNEYS remarked that such pains are part of the ordinary phenomena of such cases; the cyst seemed to go into a sort of labour on its own account.

Dr. BANTOCK thought the case was one of tubal pregnancy, the tube giving way on its under surface, and that the fœtal sac had grown between the layers of the broad ligament.

Dr. CARTER related a case of extra-uterine pregnancy. The fœtus died about term, and was removed by abdominal section, though it could easily have been removed per vaginam, abdominal section being indicated by an abscess pointing at the navel. Labour-like pains were frequently observed.

Dr. EDIS advocated primary operation as an operation of election, especially in view of the present position of abdominal surgery.

Mr. GRIFFITH thought that the presence of a contractile cyst-wall necessitated the gestation being either interstitial or in an undeveloped form of a double uterus.

Dr. CHAMPNEYS observed that the uterine platysma which extended widely over the pelvic organs was sufficient to account for contractions, and that these occurred in undoubted extra-uterine pregnancies.

Dr. GODSON alluded to a case under Dr. Duncan, in which unsuccessful attempts had been made to kill the fœtus by morphia injections.

Case of Cystic Degeneration of the Cervix Uteri.

The PRESIDENT described this case. The patient, aged 45, had had nine children, the youngest five years old. The menopause had occurred three or four years previously to her admission, which was indicated by abdominal enlargement, which turned out to be due to obesity. The cervix was covered with close-set, tense, glistening vesicles, varying in size from a millet to a hemp seed. There was no other abnormal appearance, and there were no uterine symptoms whatever, the vaginal examination having been indicated by the abdominal enlargement. On puncture, nothing but air escaped with an audible sound, the vesicle so punctured afterwards being indistinguishable except for slight traces of the marks of the punctures.

Dr. HERMAN referred to the disease of the vagina and cervix, described by Winchel as "colpohyperplasia cystica," characterised by cysts containing air or gas.

(The following remarks of Dr. BARNES on Dr. KILNER'S paper were accidentally omitted from the report of the last meeting.)

Dr. BARNES had found Faradism capable of initiating as well as intensifying uterine contractions; but he had discontinued its use, partly on account of the pain it produced. Its power of lowering arterial tension might relieve the vomiting of pregnancy and other cognate disorders.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, MAY 14th, 1884.

NORMAN CHEVERS, M.D., C.I.E., President, in the Chair.

On the Colonization of the Sub-Himalayahs, with Remarks on the Management of European Children in India.

DR. JOSEPH EWART read a paper on this subject. In the sanitary and ethnological history of the plains of British India, he remarked, there is one fact which stands forth with conspicuous prominence, viz., the absolute powerlessness of Europeans to thrive and continue their race through many successive generations. Twining declared that there was no known instance in his time of a pure European descent in the country extending beyond the third remove, and Sir Joseph Fayrer's observation prolongs it to the fourth generation only, and no further. Although the effects of climate can be much mitigated by hygiene and sanitation for adults and children, anything like colonization, such as we have seen and now see going on in other lands, is totally impracticable. This truth is noted in the degeneracy of our race wherever it has attempted to settle down in the plains. Hence the wisdom of frequent change to the hills, or to Europe, for adults, and early transfer of children to England for physical training and intellectual education. Hence the necessity, too, for frequent change of the European troops to this country; for, although the effects of prolonged residence may be mitigated by increasing knowledge of the means to be used to withstand the climate and its ailments, there is no such thing as real or permanent acclimatization for the European. But is it so in those hill climates sufficiently elevated to be on the whole free from malaria, and temperate enough to render outdoor labour on the part of the European tolerable, healthy, and even

pleasant? The benefits received by adults who periodically visit the hills, which, except in the case of those who are the subjects of visceral disease, are signal and decisive, and by children, if kept long enough there, seem to point to an affirmative answer. Moreover, the results of the education of children at the Lawrence Asylums at Ootacamund, Abu, Sanawar, and Murree, are really not unfavourable. Hitherto the hills have been mainly used as temporary resorts to restore health, or overcome the ills and enervating effects of residence in the comparatively unhealthy and malarious provinces of the plains, and, in a few cases, by retired officers. As far as a judgment can be formed from the temperate character of their climates, their freedom from malaria and epidemics, their marked beneficial influence in preserving the health of European men, women, and children, and in contributing to its restoration in those suffering from functional disorders of climatic origin, the inference is that, if undertaken in suitable places, the colonization of the hills is probably not impracticable.

The second division of the paper was devoted to a practical review of the best means for the management of infants and young children in India. That most of the high mortality is preventible is clearly demonstrated. But when all that science and art can do has been done, it is painful to note among children in the plains, even those of the well-to-do, notwithstanding the advantages of an open air life—for they are reared in roomy mansions, always pervaded by constant relays of fresh air—the best nursing and medical care, and immunity from several of the infantile maladies so fatal in temperate climates, that they seldom present the all-round physiological tone, physical robustness, "muscular rotundity, hardness, plumpness, and rosy complexions" of children similarly circumstanced in this country. For all who can afford it, children should not be kept in the plains beyond the fifth or sixth year. A question of some moment is often put to us. Should European children born in England be taken to India? If suckling they may be for a time; but it would be better to have the process completed at home, and then to leave them here under proper custody, unless provision can be made for their passing the hot, rainy, and autumnal seasons, or what is still better, the whole of the ante-educational period of childhood, in the hills.

In the discussion which followed, The PRESIDENT, Drs. MOORE, PRINGLE, MAIR, CULLIMORE, AND WHITE, Surgeon-General MURRAY and Rev. J. LONG took part.

Dr. PRINGLE gave very favourable accounts of the subsequent careers of many of the boys educated in the Lawrence Schools, one of whom is now a F.R.S., while the four sons of another, whose father had been a private soldier, have obtained good positions in the Indian services, by competitive examinations, but Drs. Pringle and Murray were of opinion that the physical characters of the hill districts presented insuperable obstacles to colonization, the only arable soil being in the form of narrow ledges, and all really available for cultivation being already occupied by natives.

THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, APRIL 4TH, 1884.

DR. THUDICHUM, President, in the Chair.

The Treatment of Talipes.

MR. NOBLE SMITH was convinced that in every case of talipes, in which the tendons were tense and resistant, the sooner tenotomy was performed the better. The position in which the foot should be placed after tenotomy was important. If placed too near the original position of deformity, leaving the elongation of the tendon to the process of stretching, a great risk was run of contraction—a condition much more difficult to cure than when the deformity was treated for the first time. Upon the other hand, if the cut ends of the tendon were separated too much, and pressure applied on the part between the ends, there was danger of non-union—a serious misfortune. He described a case in which the tendo-Achillis had been divided for talipes-equinus; the foot had been fully extended and encased in a plaster of Paris bandage, and kept there for several weeks. The tendon had not united, and a severe form of talipes calcaneus had resulted. He found it advisable in the majority of cases to place the foot in a nearly normal position, leaving very little to be done by stretching. Many cases could be cured without operation, and plaster of Paris bandages could be used with benefit in some instances. He advocated simplicity with regard to construction of instruments for club-feet, and urged surgeons to give more attention to the details of construction, and to leave less to the discretion of the instrument-makers than they were generally inclined to do.

Dr. SINCLAIR THOMSON recommended the removal of a V-shaped piece of bone in varus, as a friend of his, in Germany, who adopted this plan in young children, and tied the bones together with catgut, had found it very successful.

Dr. THUDICHUM had noticed many cases of syphilitic brain disease in young persons, in which contraction of the plantar faciæ took place to a great degree, and he found them yield to anti-syphilitic treatment without operation.

Mr. BENHAM considered it a settled point in orthopædic surgery, that in cases of equino-varus, the varus should be first cured.

In reply, Mr. NOBLE SMITH said he would rather not perform osteotomy if the cases could be otherwise cured. With regard to performing the operation for equino-varus in two parts, he had often seen all the tendons cut at one operation, and generally with bad results. In his opinion, no operation should be undertaken where nervous symptoms, such as spasm, were present, until those symptoms had first been arrested.

Abscess of Kidney.

Dr. H. CAMPBELL-POPE showed specimens of diseased kidneys. The patient was said to have had no kidney symptoms during life, except frequency of micturition, and she suffered from violent headaches. She died suddenly, and at the *post-mortem* examination it was found that the pelvis of the right kidney was very largely dilated; while the left kidney had several large abscesses, which contained nearly a pint of curdy pus, together with a small stone. The cause of death was found to be hæmorrhage into the brain.

Suppurative Inflammation of Knee-joint.

Mr. J. R. LUNN showed a case of pus in the left knee-joint, which he had opened antiseptically, with a good result. The history was as follows:—J. E., aged 45, a shoeblack by trade, admitted into St. Marylebone Infirmary 1st November, 1883. He stated that he had never had any serious illness, except that when a child he had something the matter with his right hip. He had been ill seven days with intense pain in the left knee, which, on admission, was swollen and very hot. Distinct fluctuation was felt. It was treated with a back splint, leeches, &c. On the 7th it was aspirated, and 3 ozs. of pus withdrawn. On the 8th, the joint was opened under the spray, and a large-size drainage tube passed from the highest point of the joint, and a counter-opening made on the outer side of the joint. The joint was washed out with carbolic-lotion, 1 in 40, and dressed antiseptically, and the leg was put up in a McIntyre splint. That evening the temperature was 99·8°. The patient had slight rise of temperature every evening, and on the 22nd it went up 101°, when an abscess was opened on the outside of the joint. From this date the patient made an uninterrupted recovery; the antiseptics were left off on 11th December (five weeks and four days from the time of operation). The wound was dressed with a little iodoform, and the knee was put up in a plaster of Paris splint, which he kept on for about two

months, and the patient was able to get about in the ward. He was discharged 14th March cured, with a very fair movable joint. During the whole of the after treatment, he had only had nine dressings under the spray. On the 28th March, Mr. Lunn had seen this patient, since his discharge from the infirmary, and his statement was "that he gets about as well as ever."

INTERNATIONAL HEALTH EXHIBITION.

Article IV.

Dwellings.

Models and plans of dwellings are scattered in various parts of the Exhibition; some are near the main entrance, others in the grounds, and others again in the central gallery, Class XX. It seems a pity that the excellent classification which the Council designed could not have been more rigidly adhered to in practice. A medical *confrère* in search of a particular model wandered for two hours from gallery to gallery before his industry was rewarded. It is impossible at the present time to compare plans of rival artisan schemes without traversing and retraversing the considerable distance between the central gallery and the main entrance.

The various exhibits which illustrate methods of housing the poor, may be divided into those which are actual, that is, already built, and those that are prospective. Of the former, Mr. Edward Clarke contributes drawings of the industrial dwellings erected in Little Wild Street, White Hart Street, and Stanhope Street, Drury Lane; Leather Lane, Holborn; Turnmill Street, Farringdon Road; Queen Street, Seven Dials; Hanbury Street and Wellington Street, Whitechapel; and Lambeth Walk, Southwark. The plans and drawings of these tiers of ugly artisans' barracks must be studied in the entrance, or better still in the streets named, where they occupy areas formerly condemned with all the alliterative d's of dirt, disease, drunkenness, despair and early death. Improvements of this kind have their drawbacks. There was material for a Hogarth or a Doré in old Drury Lane, but what is there in the new save the repulsiveness of poverty, with none of its picturesqueness? The utilitarian deformity which for the last twenty years has reigned supreme as the guiding principle of model dwelling construction, has in its health results somewhat disappointed expectation. The zymotic rate of sickness in the St. Giles' new dwellings is scarcely inferior to that of the old. Typhus must be excepted, it is true; this subtle, malignant fever was formerly endemic in that parish, but now it is not more frequent in proportion amongst the St. Giles' poor than in the other Metropolitan districts. This happy change is attributable to the demolition of the fever-sodden tenements, the displacement of a great many of the Irish, and the substitution of new dwellings inhabited by new peoples.

The Metropolitan Railway Company exhibit an elaborate and highly finished model of prospective industrial dwellings to be built on the area cleared by the construction of the Tower Hill Extension Railway. The design is that of many storied tenements, so built as to enclose two quadrangles; thus, a larger number of windows and rooms will look out on a space enclosed by brick and mortar, than on to streets or houses. This to our mind is a cardinal, a fatal defect. There will be, as it were, two immense high flues, honeycombed, with windows; should typhus, diphtheria, or summer diarrhœa, prevail in the lower rooms, the up-current will almost certainly carry the particulate elements of infection to the upper rooms. We must strongly express our decided objection to all buildings of the block plan, built on a design which precludes free and thorough ventilation.

No. 388, in Class XX., is the joint exhibit of A. Wynter Blyth, the Medical Officer of Health for Marylebone, and Richard Greene, Medical Superintendent of Berrywood Asylum. It consists of models and plans for dealing with the poorest classes; and it is, we believe, the only exhibit which in any degree recognises the pressing need of providing for those who can only afford to pay low rents. The scheme consists in the construction of a block of buildings which in itself is to be a sort of compact city. Each family occupying one room, the sexes are separated at night, there are arrangements for ventilation, facilities for personal cleanliness, for washing linen, for prevention of fire, for escape from fire, provision for the infectious sick, and even a place which will serve as a temporary mortuary for the deposition of the dead.

If this scheme should ever come into practical operation, the authors recommend as a site a plot of about 110 feet long and 45 feet wide; this would afford ground space for a large block of five divisions, each division accommodating 20 families, or the entire block would make provision for 80 large families, 20 married couples without children, and 20 single people; in all, for 200 adults and 320 children.

How it is proposed to construct a single room for a family may be gathered from the following brief description. The dimensions of any of the larger rooms are to be 20 feet long, 12 feet wide, and 8 feet high; total cubic capacity 1,920 cubic feet. Ventilation is provided for by means of Tobin's tubes and special gratings, besides the windows, doors, and fireplaces. There are trucks of sheet iron for coal, and cupboards for general domestic storage. The main novel feature is in the construction of the bedsteads. Three brick piers project from one of the walls of the room, and form recesses about 18 inches deep. In these recesses are placed iron bedsteads; the head of the bedstead is clamped securely to the wall; about 14 inches from this head is a hinge joint, enabling the bedsteads to be easily folded up, the legs, &c., being so constructed as to facilitate this arrangement. The bedstead, on being thus folded up close to the wall with its bedding, is covered and concealed by partitions; and the whole is so arranged that at night the partitions partially divide the room into three compartments, whilst by day a visitor would see neither beds nor bedding, but a clear floor space as in an ordinary sitting-room. There is a simple provision for the ventilation of the bedding thus placed out of sight; and by cutting apertures into the lower edge of the partitions and not carrying them quite up to the ceiling the little compartments are at night well-ventilated. The authors consider that by this plan the tenants will have the comfort of a convenient sitting-room during the day, will be able to cleanse the floor much more easily than if it were covered with furniture, and will also be able to dress, undress, and sleep with decency. The basement is to be used as a laundry, and on the landing is a lavatory and sink for two families.

At the top of the building, on the roof, is placed a small hospital; here women may be confined, or infectious diseases isolated. There are many other details relative to escape in case of fire, &c., which may be studied on the plans and models themselves. Of course it would be necessary to appoint a *concierge*, and we should imagine the success of the scheme would mainly depend on the extent and kind of supervision the dwellings when built and occupied would receive.

Another novel proposal is that of Mr. O'Keefe, who shows models of tower-like houses which he would construct at the corners of important thoroughfares, connected with each other by light foot bridges, available for escape in case of fire, and also to facilitate the passage of foot passengers over dangerous crossings. With regard to the latter, we certainly think that subways would be better; any bridge would have to be built such a height that the labour of going up and down each staircase would be onerous; whereas a subway could be made comparatively shallow, and if properly lit, such methods of cross communication would be of great public convenience and diminish street accidents. Both Messrs. C. B. and A. H. Allen, of Chelsea, exhibit some models of cottages (Class XX., 394 and 393). In a miner's cottage, the form is not devoid of neatness and beauty; the most noteworthy internal improvement is keeping the fire-places or means of heat in the centre of the building, so that the warmth of the household hearth is not radiated away by the external walls. A

labourer's cottage, designed by Mr. A. H. Allen, suggests the substitution of partitions of wood quartering, coated with silicate paint and filled in with slate panels, instead of the ordinary combustible material.

A model, which has attracted some attention, is that exhibited by Lieut.-Col. J. R. Turnbull (Class XX., 391); the drains instead of being buried in the earth are laid in an open channel, so that they are at all times ready for inspection. Considering the injury to health and the expense of defective drains which are placed so carefully out of sight that some one has to be ill of fever, or grievously distressed by a nuisance, before any investigation is likely to be undertaken: this proposal seems to possess many and great advantages. A somewhat similar idea is exhibited by Mr. Nicoll in a model in the South Annexe (Class XXII., 424.) In this each street is supposed to have a subway, in which run sewers, telephone wires, gas tubes, &c.; beside which the sewage is intercepted in an ingenious manner, and there is no direct connection between the house drain and sewer. There is not the slightest doubt that if a new city is ever built, very extensive subways, if not indeed underground roads for heavy traffic, with the cellars and stores of shops opening on to such subterraneous passages would be constructed, the convenience of such an arrangement being obvious. As it is, some modification of Mr. Nicoll's plan may have to be adopted, especially if, after a few more people have been decapitated by the over-head wires, an Act be passed to run the wires where they ought to be, under the surface.

GENERAL CORRESPONDENCE.

VEGETARIANISM AT THE HEALTH EXHIBITION.

[To the Editor of the Medical Times.]

SIR,—The truly "impartial and scientific manner" of your approach to the study of "practical vegetarianism" is so grateful to the Executive of the Vegetarian Society, that I am encouraged to ask you to permit me to submit some corrections of your figures.

As the Chairman of the London Committee of the Society, I have asked our manager for a copy of the statement of quantities furnished to you, and I find that bread and potatoes, of an approximate gross weight of 2,600 ozs., are omitted from the list. The bread is whole meal. I also learn, that of the 440 persons mentioned by you, only 390 partook of the "sixpenny dinner."

If I had before me your method of arriving at the dry weight (which I judge your quotations to represent), I would follow up the calculation and correct your final averages: in default, I can only ask you to be so good as to apply the added weight and diminished number to your previous totals, and in the interests of "scientific" truth to quote, in your next issue, the results in bulk, and cost per person (I do not expect to find that our sixpenny dinner is costing us less than 3½*d.*, or including condiments 4*d.*), when not only will the nutritive quality of our supplies be more apparent, but our liberality, at least, will be a little more justly conspicuous than under an allegation of cost of twopence.

I am, Sir, yours, &c.,
SANDYS BRITTON.

Vegetarian Restaurant,
13, *Rathbone Place, Oxford Street, W.*

[The writer of the article calculated the dietary from the list drawn out expressly for that purpose by the manager; if the manager furnished an inaccurate list, the writer does not feel inclined to again go through laborious calculations to possibly be met with a like objection. If, however, the Vegetarian Society choose to arrange for all the substances eaten on a particular day to be weighed and measured under scientific supervision, we may, on account of the general interest of the subject, again refer to it.

ED. *Medical Times.*]

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Royal College of Physicians, held on the 29th instant, the following communications were presented:—A Gracious Acknowledgment from Her Majesty, in reply to the Address of Condolence on the Death of the Duke of Albany, and a letter of thanks from Her Royal Highness the Duchess of Albany; a letter from Rome, proposing that the College should assist in erecting a Statue to Fabricius; a letter from the Poor Law Medical Officers' Association, asking the assistance of the College to obtain an amendment of the Poor-Law Medical Officers' Superannuation Act, so as to make it compulsory instead of permissive, and one from the Royal College of Surgeons of England as to the importance of obtaining an amendment of the clause in the Medical Act Amendment Bill dealing with surplus funds of the Medical Board. Referred to the Medical Bill Committee.

Licenses to practise were granted to three candidates who had passed the required examinations.

The certificate of his having gained the Murchison Scholarship of the year was presented to Mr. J. Bland Sutton.

A list of Members of the College who had been nominated for the Fellowship was referred back to the Council for reconsideration and revision.

Dr. Dyce Duckworth was elected treasurer to the College, in the room of the late Dr. Andrew Whyte Barclay.

The new by-laws, providing for the appointment annually of two Fellows to be Vice-Presidents of the College, were enacted for the first time.

A lengthy report was received from the Committee on Nomenclature of Diseases, stating that the process of revising the work, which had been commenced in 1880, was now completed; referring to some special changes made in it; and recommending the special thanks of the College should be given to certain gentlemen named. The report was adopted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 22nd instant, and when eligible will be admitted to the pass examination, viz.:—

Messrs. Edward B. Ormerod, Charles P. White, and Arthur R. Down, Students of St. Bartholomew's Hospital; Arthur Crossley, Peter Paget, and Arthur E. Palmer, of Guy's Hospital; William J. Oliver, and Samuel G. Moores, of St. Thomas's Hospital; George H. Seagrave, and Arthur E. Paul, of University College Hospital; Herbert P. Prankerd, of the Westminster Hospital; Hugh Exton, of the London Hospital; and William G. Bower, of King's College Hospital.

Thirteen candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, and two for six months.

The following gentlemen passed on the 23rd instant, viz.:—

Messrs. William J. Rogers, Percy G. Gilmore, and George A. Edsell, of St. Bartholomew's Hospital; William T. Rayne, of the Westminster Hospital; Walter L. Wyatt, of the Middlesex Hospital; Arthur T. Brown, of Guy's Hospital; Walter H. Moyle, and Thomas C. Summers, of the London Hospital; Albert C. Lewis, of University College Hospital; and William B. Wedgwood of King's College Hospital.

Ten candidates were referred for three months and four for six months. One hundred and forty-eight candidates presented themselves for the examination just completed, as compared with 169 at the corresponding period of last

year; of this number 69, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their Anatomical and Physiological studies for three months, and eight for six months; making a total of 77 referred candidates.

The half-yearly primary or Anatomical and Physiological examination for the Fellowship of the College was commenced on the 23rd instant, when 90 candidates presented themselves.

At the oral examination on the 24th and 26th instant, the following gentlemen were reported to have acquitted themselves to the satisfaction of the Board of Examiners, and when eligible will be admitted to the pass examination, viz. :—

Messrs. Herbert Lund and W. H. Jessop, of the Cambridge School; Thomas Sinclair, of the Belfast School; W. G. Richardson, of the Newcastle School; Herbert Herbert, of the Leeds School; R. T. C. Leith, of the Edinburgh School; P. M. O'Brien, of the Liverpool School; P. B. Connolly, of the Charing Cross Hospital; E. T. Thring, of the University College Hospital; Arthur Hardwick, of the Westminster Hospital; R. F. Jowers, of St. Bartholomew's Hospital; Henry Hyde, of King's College Hospital; and H. C. Bowman, of the Manchester School.

Nineteen candidates having failed to acquit themselves to the satisfaction of the Board of Examiners were referred to their Anatomical and Physiological studies for six months.

The following gentlemen passed on the 27th instant, viz. :—

Messrs. John Richards, F. C. Bury, and A. H. Smith, of the Manchester School; W. W. C. Robson, and Robert Nairn, of St. Thomas's Hospital; J. W. Barrett, University of Melbourne; L. J. Pisani, Charing Cross Hospital; J. R. Bradford, University College Hospital; and E. F. White, King's College Hospital.

Eleven were referred for six months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 22nd, 1884:—

Charles Harry East, The Limes, Kettering, Northamptonshire; Thomas George Jeffs Lavers, 69, Clarendon Road, W; Leonard Roberts, Bishops, Lydeard; William Henry Tomlins, 25, Rutland Street, Hampstead Road; James Wilding, 3, Lambourne Road, Clapham.

The following gentleman also on the same day passed the Primary Professional Examination.

Arthur Shaw, University College Hospital.

Royal College of Surgeons in Ireland.—At a meeting of the Court of Examiners, held on the 8th May and following days, the under-named gentlemen passed their final examination for the letters testimonial of the College, and having taken the declaration and signed the roll, were admitted licentiates, viz:—

Berkeley J. Acheson, George H. Bagot, Louis A. F. Bate, John Bernal, Francis L. Carte, James V. Collins, Cecil Cronin, Thomas Crow, Alexander Cuffe, Thomas J. Daly, Julius Barry Delaney, Thomas L. Dillon, Cuthbert Eccles, Patrick J. Ford, Frederick J. Greig, James Hanna, Denis Kennedy, Graham Kennedy, Charles R. Kilkelly, Benjamin Lane, Frederick D. Lawson, John Lowney, Edward M'Nulty, Thomas J. M'Grath, James H. Maguire, Edward L. Minchin, Cornelius R. Moloney, Walter A. Murray, Llewellyn T. M. Nash, Charles J. Perrott, William W. Scott, Edward N. Smartt, Alexander Stewart, Malcolm E. Thomson, Augustus M. Westropp, Henry E. P. Wright, Thomas N. Wright, John H. Woods, and John F. Yates, Esquires.

Thirteen were referred to their studies.

Cambridge University.—The following corrected programme of Examination for Medical and Surgical Degrees in the Easter Term, 1884, has just been issued. First Examination for Degree of Bachelor of Medicine:—Friday, June 6th: 9 a.m. to 12.0. Elementary Biology. 1.30 p.m. Oral and Practical Examination in Elementary Biology. Saturday, June 7th: 9 a.m. Oral and Practical Examination in Elementary Biology. Monday, June 9th: 9 a.m. to 12.0. Chemistry. 1.30 to 4 p.m. Mechanics and Hydrostatics. Tuesday, June 10th: 9 a.m. to 12.0. Heat, Electricity, and Optics, 1.30 p.m. Practical Chemistry (in the University Laboratory) and Oral Examination. Wednesday, June 11th: 9 a.m. Practical Chemistry (in the University Laboratory) and Oral Examination. Second Examination:—Tuesday, June 10th: 9 a.m. to 12.0. Physiology (in the Physiological Laboratory), 2 to 4 p.m. Pharmacy and Pharmaceutical Chemistry. Wednesday, June 11th: 9 a.m. to 12.0. Human Anatomy, 2 p.m. Oral Examination in Pharmacy. Thursday, June 12th: 9 a.m. Oral and Practical Examination in Physiology (in the Physiological Laboratory). Friday, June 13th: 9 a.m. Oral Examination and Dissection (in the Anatomical School). Saturday, June 14th: 9 a.m. Oral Examination and Dissection (in the Anatomical School).

Aberdeen University Club, London.—The inaugural dinner of the newly-formed Aberdeen University Club was held in the Venetian Salon of the Holborn Restaurant, on Wednesday, the 21st, the President, His Grace the Duke of Richmond and Gordon, in the chair. There was a large attendance—about 160—including, Lord Watson, Sir Herbert Maxwell, Sir Andrew Clark, Sir Wm. Guyer Hunter, Sir Wm. MacCormac, Dr. J. Matthews Duncan, A. Bain, LL.D. (Lord Rector of the University), J. A. Campbell, LL.D., M.P., Mr. Farley Leith, Q.C. After the usual loyal toasts, the chairman proposed the toast of the evening—"Prosperity to the Aberdeen University Club, London." Dr. Campbell proposed the University, and Dr. Bain replied. The chairman's health was proposed by Sir H. Maxwell, and that of the Hon. Secs., Dr. R. W. Burnet and Mr. R. W. Routledge, by Sir Andrew Clark. Excellent music was supplied by the Bijou Drawing-room Orchestra Company, and songs were given by Dr. Glover, Mr. Cantlie, and others.

Extraordinary Case of Poisoning at Glasgow.—On Sunday afternoon it was reported to the police of the Western district, that a whole family, consisting of a man, his wife and four children (the latter aged respectively 18 years, 8 years, 6 years, and an infant aged 11 months) had become seriously ill after partaking of some curds and cream, obtained from a dairy in the neighbourhood on Saturday afternoon. It is stated that the curds and cream were eaten shortly after two o'clock on Saturday afternoon, and that about 6 p.m. of the same day they became ill, suffering from vomiting and severe internal pains. The infant suffered apparently as much as the others, although only two spoonfuls had been taken. A medical man was called in who did what he could and so far successfully that he was able to give it as his opinion that the sufferers were out of danger on Sunday morning, before he left them. The police, having taken the matter in hand, discovered that the milk from which the curds were prepared had been obtained from a dairyman in another part of the city. A portion of the milk as well as part of the curds and cream found in the shop were secured by the police and forwarded to Professor Dittmar, Anderson's College, for analysis. It is supposed that the poisonous matter may be discovered in the preparation used for curdling the milk, but this is merely surmise, and until the report of Professor Dittmar is known, the extraordinary case must remain obscure. On Monday morning the man and his wife were still suffering from the effects of the poison, while the others had all recovered.

The Belfast Meeting of the British Medical Association.—The *Irish Times* is informed that it is more than probable that the Dublin Medical faculty will as a body abstain from attending the forthcoming meeting of the British Medical Association at Belfast, owing to the action of the Local Committee in making arrangements whereby it is felt the position of the Dublin practitioners has not been properly recognised. It is alleged that the Northern Capital has been putting itself in the post of honour to the exclusion of its guests. The working of the coming meeting has been placed in the hands of fifteen officers from Belfast and vicinity; seventeen from England; six from Scotland; while all the rest of Ireland—outside Belfast—is represented by only five.

Scholarships for Research.—At a Court of Assistants of the Worshipful Company of Grocers, held on Wednesday, May 21st, 1884, the following candidates were elected to the Company's Scholarships for Research into the causes of important diseases, viz.—(1) W. North (renewal)—subject, Ætiology of Ague; (2) Leonard C. Wooldridge, D Sc., M.B.—Hæmorrhagic Disease, Pernicious Anæmia, and Blood Clotting; (3) Alfred Lingard, M.R.C.S.—Intimate Ætiology of Enteric Fever.

Army Medical Department.—Inspector-General J. Mure, M.D., on the Retired List, died at 40, Tedworth Square, on the 16th instant. He entered the service

October 4th, 1839; became surgeon, December 24th, 1847; surgeon-major, July 6th, 1855; deputy-inspector-general, August 7th, 1867; and retired, with the rank of inspector-general, December 1st, 1869.

DEATHS FROM EATING TINNED SALMON.—Two deaths have just occurred at Wolverhampton, with symptoms resembling those of cholera, ascribed to the effect of eating tinned salmon. The medical attendants believe that the poison which proved fatal was not a metallic, but an animal poison. The contents of the stomachs of the victims, together with the remainder of the salmon, and a full tin of salmon of the same brand are to be submitted to analysis.

CAMBRIDGE PHILOSOPHICAL SOCIETY.—At the last meeting of this Society, the following were elected honorary members:—Dr. Anton Dohrn, of Naples; Professor Gegenbaur, of Heidelberg; Professor Pflüger, of Bonn; Mr. W. T. Thiselton Dyer, and Mr. J. Whitaker Hulke.

WESTMINSTER HOSPITAL.—At a meeting of the House Committee, held on May 27th, a Building Committee was appointed for the purpose of making arrangements for the erection of a medicine school, on the site already purchased in Caxton Street.

PROPOSED NEW SMALL-POX HOSPITAL.—The Managers of the Metropolitan Asylums District have applied for the consent of the Local Government Board to the erection of a hospital for small-pox patients at Gore Farm Estate, Essex, at a cost of 120,000*l.*

THE APOTHECARIES' SOCIETY.—The first open surgical scholarship of the Society of Apothecaries of London has been awarded to Sidney Plowman, St. Thomas's Hospital.

APPOINTMENTS.

BOYD, S., M.B.—Surgeon to the Paddington Green Children's Hospital.

BROWN, J. MACDONALD, M.B., C.M. Edin., F.R.C.S. Eng. and Edin.—Lecturer on Anatomy at the Surgeons Hall School of Medicine, Edinburgh.

CAIGER, F. F., M.B., M.S., M.R.C.S., L.R.C.P., Exten.—House Surgeon to St. Thomas's Hospital.

COOPER, G. F., M.R.C.S., L.R.C.P., Completion of Term.—House Surgeon to St. Thomas's Hospital.

GLASSINGTON, —, M.R.C.S.—Anæsthetist to the National Dental Hospital.

GREEN, C. D., M.R.C.S., L.R.C.P., Exten.—Resident House Physician to St. Thomas's Hospital.

HART, DAVID BERRY, M.D.—Assistant Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

HEARD, CHARLES DE WOLFE, L.R.C.P. and L.R.C.S. Edin.—Medical Officer for the Keelby District of the Caistor Union, *vice* Mr. A. Allen, resigned.

HEBBERT, C. A., M.R.C.P. Lond.—Demonstrator of Anatomy in the Westminster Hospital Medical School.

HEWITT, F. W., M.B., M.R.C.S.—Anæsthetist to the National Dental Hospital.

HUGGARD, W. R., M.D.—Assistant Physician to the West End Hospital, 73, Welbeck Street, *vice* H. Tibbits, M.D., resigned.

HULL, WATTER, M.B., M.R.C.S., L.R.C.P., Exten.—Resident House Physician to St. Thomas's Hospital.

JOHNSTON, G. D., M.R.C.S., L.R.C.P., Completion of Term.—House Surgeon to St. Thomas's Hospital.

JONES, H. L., M.R.C.S.—Assistant House-Surgeon to the St. Bartholomew's Hospital, Chatham, *vice* G. Welch, L.R.C.P., resigned.

LYON, T. GLOVER, M.R.C.S., L.R.C.P.—Clinical Assistant in the Skin Department of St. Thomas's Hospital.

MACDONALD, J., M.B.—Junior House-Surgeon to the Carlisle Dispensary, *vice* W. M. Storrar, M.B., resigned.

MORRISON, J. T. J., M.B.—Resident Surgical Officer to the General Hospital, Birmingham, *vice* H. G. Barling, M.B.

NIAS, J. B., M.B.—Honorary Physician to the Western General Dispensary.

ORFORD, JOHN, M.R.C.S., L.R.C.P.—Resident Accoucheur to St. Thomas's Hospital.

ROBINSON, H. B., M.R.C.S., L.R.C.P.—Assistant House Surgeon to St. Thomas's Hospital.

SANEYOSKI, Y., M.R.C.S., L.R.C.P.—Assistant House Physician to St. Thomas's Hospital.

SCUTT, T., M.R.C.S., L.R.C.P.—Assistant House Physician to St. Thomas's Hospital.

SMITH, JAMES MURRAY, M.B. and M.C. Aberdeen.—Medical Officer for the First District of the Romford Union, *vice* Mr. A. Wright, resigned.

STONE, F. W. S., M.R.C.S., L.R.C.P.—Non-Resident House Physician to St. Thomas's Hospital.

SUTTON, H. M., M.R.C.S.—Junior Resident Medical Officer to the Great Northern Central Hospital, *vice* N. B. Gandevia, M.R.C.S.

SUTTON, S. W., M.D., B.S., &c.—Ophthalmic Assistant to St. Thomas's Hospital.

TILLEY, W. J., M.R.C.S.—Assistant House Surgeon to the Devonshire Hospital, Buxton, *vice* A. C. Buist, M.B.

TYRRELL, WALTER, L.R.C.P., M.R.C.S.—Anæsthetist to the National Dental Hospital.

UHTHOFF, J. C., M.D., F.R.C.S.—Assistant Surgeon to the Sussex County Hospital, *vice* H. Couling, F.R.C.S., resigned.

UNDERHILL, CHARLES E., M.D.—Assistant Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

VACANCIES.

DENBIGHSHIRE INFIRMARY, DENBIGH.—House Surgeon. Salary to commence at £85 per annum, with board, residence and washing. Candidates must be duly qualified. Conversant with the Welsh language. Applications to be sent to the Secretary, on or before June 5th.

EAST SUSSEX, HASTINGS, AND ST. LEONARDS' INFIRMARY.—Assistant Physician. Candidates must be duly registered Doctors or Bachelors of Medicine of some University of Great Britain or Ireland, or Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications, with testimonials, to be sent to the Secretary, not later than 10 o'clock on the morning of June 10th, the day of election.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, &c. Candidates names must appear upon the Medical Register as being possessed of a medical and surgical qualification, and they must produce evidence of good moral character. Private practice strictly prohibited. Applications, with testimonials, to be sent to the Secretary, on or before June 11th. The election to take place on June 18th.

GUEST HOSPITAL, DUDLEY.—Resident Medical Officer. Salary £120 per annum, with furnished residence, board, coal and gas. Candidates must be registered with a double qualification, and be unmarried. Applications, with testimonials, and certificates of registration, to be sent to Mr. E. Poole, Secretary, not later than June 4th.

MACHYNLLETH UNION.—Medical Officer to the Towyn District, in succession to Mr. John Ffoulkes Jones, deceased. Population, 3,358. Salary, £36.

NORTHAMPTON GENERAL INFIRMARY.—Surgeon. (*For particulars see Advertisement.*)

OWEN'S COLLEGE, MANCHESTER.—Lectureship. (*For particulars see Advertisement.*)

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Chair of Physiology. (*For particulars see Advertisement.*)

SUNDERLAND INFIRMARY.—Senior House Surgeon. Salary, £100 per annum, with board and residence. Candidates must possess double qualifications (registered). Applications, with testimonials, to be sent to the Chairman of the Medical Board, on or before June 2nd. The election will take place on June 12th.

WINDSOR ROYAL INFIRMARY.—House Surgeon. (*For particulars see Advertisement.*)

DEATHS.

ALDRED, H. A., M.D., of Westbourne Park, on May 21st.

DAVID, JOHN, M.D., at 16, Sydenham Villas, Cheltenham, on May 18th, aged 67.

MURIEL, JOHN, J.P., D.L., F.R.C.S., at the Palace Green, Ely, on May 26th, aged 85.

JONES, C. M., L.R.C.P., F.R.C.S., at 3, St. Andrew's Terrace, Plymouth, on May 16th, aged 49.

NOTES, QUERIES, AND REPLIES.

College of Surgeons, Primary Examination for the Fellowship.—The following were the questions submitted to the candidates at the written examination held on Friday, the 23rd instant:—

ANATOMY.—1. Give the dissection required to expose the complete dome of the pleura of the right side. 2. Describe the action of the muscles passing between the trunk and upper limb in reference to the movements of the shoulder-girdle and arm upon the trunk. 3. Describe fully the twelfth dorsal vertebra, mentioning the various structures attached to it. 4. Describe the dissection required to expose the transversus pedis muscle.

PHYSIOLOGY.—1. What are the distinctive Functional and Structural characters of Animal and Vegetable Cells? Give the evidence on which your statements rest. 2. Describe the means by which a Muscle-curve is obtained. What circumstances modify the contraction of Muscle, and the form of the Muscle-curve? 3. Assuming the right fore-arm to have been voluntarily flexed, describe the course of the Nerve-impulse by which this movement was excited, from the cerebral Motor Ganglion-cells to its exit from the Cord. Give the evidence on which your answer is based. 4. Describe the Mechanisms by which Accommodation is accomplished, and the methods of accurately determining them.

COMMUNICATIONS RECEIVED—

MR. H. A. FERGUSSON, London; Dr. W. ALEXANDER, Liverpool; Dr. VINTRAS, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Mr. H. KIMPTON, London; THE CLERK TO THE GROCERS' COMPANY, London; Mr. W. J. ROECKEL, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Mr. J. C. LUCAS, Edinburgh; Dr. A. T. WISE, London; Mr. WYNTER BLYTH, London; THE SECRETARY OF THE LOCAL

GOVERNMENT BOARD, London; THE REGISTRAR-GENERAL FOR IRELAND, Dublin; OUR LIVERPOOL CORRESPONDENT; Dr. BURNEY YEO, London; Dr. CLIFFORD BEALE, London; Dr. DONKIN, London; THE SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, London; Dr. P. HORROCKS, London; Dr. WOLFENDEN, London; Mr. BECHER, London; Dr. WOLFE, Glasgow; Mr. M. D. MAKUNA, Pontypridd; Mr. GEO. RENDLE, London; Mr. PORTER, London; THE SECRETARY OF THE NATIONAL DENTAL HOSPITAL, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. T. M. STONE, Wimbledon; THE SECRETARY OF THE OBSTETRICAL SOCIETY, London; Mr. PAUL SWAIN, London; THE SECRETARY OF THE WESTMINSTER HOSPITAL MEDICAL SCHOOL; THE SECRETARY OF THE UNIVERSITY, Cambridge; THE HON. SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. WYNN WESTCOTT, London.

BOOKS RECEIVED—

Confessions of an English Hachish Eater—On Dupuyten's Finger-Contraction: its Nervous Origin, by Robert Abbe, M.D.—Notes on Labour in Central Africa, by R. W. Felkin, F.R.S.E., F.R.G.S.—The New Sydenham Society's Lexicon of Medicine, &c., Part 9.—Manual of Pathological Histology, by Cornil and Ranvier, Vol. II., Part 1.—Miss Mary Wardell's Convalescent Home for Scarlet Fever.—Address on Practical Medicine, by John V. Shoemaker, A.M., M.D.—International Medical Congress, Copenhagen.—Some Recent Theories Regarding the Pathology of Sympathetic Ophthalmia, &c., by Samuel Theobald, M.D.—Washington Obstetrical and Gynecological Society, Annual Address by S. C. Busey, M.D. Report on the Health, Sanitary Condition, &c., of Kensington, from April 20th to May 17th, 1884.—Health Studies, by H. S. Paterson, M.D.—The Treatment of Backward Displacements of the Uterus, &c., by Wm. Alexander, M.D.—Hip and Shoulder Dislocations, by Moses Gunn, M.D., A.M., LL.D.—Annual Report of the British Medical Benevolent Fund, for 1883—Annual Report of the Health, &c., of the Burgh of Dundee, for 1883—Annual Report of the Suffolk Lunatic Asylum, for 1884—Report of the Metropolitan Board of Works, for 1883—Pharmacopœia of the Victoria Hospital for Children—The Life and Work of St. Paul, by F. W. Farrar, D.D., Part 29—The Encyclopædic Dictionary, Part 5—Small-pox *versus* Pemphigus—The Health of the Senses, by H. Macnaughton Jones, M.D., &c.—Albumen and Sugar Testing, by Geo. Johnson, M.D., F.R.C.P., F.R.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Revista de Medicina—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynakologie—Le Concours Médical—Centralblatt fur Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—Revue de Chirurgie—The Polyclinic—El Latino Mericano—El Ensayo Medico—Dietetic Reformer—The Times of India, May 6th.

APPOINTMENTS FOR THE WEEK.

Friday, May 30 (*this day*).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m.—M. E. Mascart, "Sur les Couleurs."

Saturday, May 31.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Professor Bonney, "Microscopical Geology."

Monday, June 2.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

ROYAL INSTITUTION, 5 p.m.—General Monthly Meeting.

Tuesday, June 3.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ROYAL INSTITUTION, 3 p.m.—Prof. Gamgee, "Nerve and Muscle."

Wednesday, June 4.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m.—Specimens will be shown by Dr. Godson, Dr. Galabin, Dr. Aveling, Dr. Walters, Dr. Malins, Dr. John Williams, and Dr. R. Barnes. Papers will be read by—Dr. Playfair, "Note on the Absorption, with ultimate Recovery, of Thrombosis of the Pulmonary Artery in the Puerperal State;" Dr. Matthews Duncan, "On Fœtal Revolutions;" Dr. Lediard, "Fibro-cystic Myoma of Uterus."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Edward Albert Schäfer, F.R.S., "The Functions of the Marginal Convolution."

Thursday, June 5.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—Living and Card Specimens at 8 p.m.—Dr. P. H. Mules, "Drawing of Fundus with choroidal Tubercles: stained Sections of tuberculous Choroid;" Dr. Brailey, (1) "Paralysis of external Rectus and Mydriasis, with a recent history of Uni-ocular Diplopia," (2) "Sympathetic Papillitis;" Messrs. Critchett and Juler, "Case of Choroiditis Disseminata;" Messrs. Cowell and Juler, "Mounted Specimens of Intra-ocular Sarcoma." Communications at 8.30 p.m.—Dr. Sharkey and Mr. J. B. Lawford, "Optic Neuritis, associated with acute Myelitis;" Mr. Nettleship, (1) "Cases of Recovery from Amaurosis in Infants," (2) Case of Retro-ocular Neuritis;" Dr. C. E. Fitzgerald, "An Instrument for showing the Action of the Accommodation;" Mr. J. B. Lawford, "Amblyopia with Contraction of visual Fields and central Scotoma, ending in Recovery;" Mr. Adams Frost, "Ciliary Staphyloma, following Irido-choroiditis, sympathetic Ophthalmitis subsequent to Excision;" Mr. Simeon Snell, "Case of Uni-ocular Diplopia."

ROYAL INSTITUTION, 3 p.m.—Prof. Dewar, "Flame," &c.

Friday, June 6.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Edward Albert Schäfer, F.R.S., "The Analysis of Voluntary Muscular Action."

ROYAL INSTITUTION, 8 p.m.—Mr. Willoughby Smith, "Electric Induction Experiments."

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CLINICAL LECTURES ON THE TREATMENT OF DISEASE.

Delivered in King's College Hospital,

By J. BURNEY YEO, M.D., F.R.C.P.

Physician to the Hospital.

Lecture II.

Catarrh of the Respiratory Passages—Acute Nasal Catarrh.

Gentlemen,—The treatment of diseases of the respiratory organs will form the first part of my course, and I shall commence to-day with the consideration of the treatment of catarrhal affections of the air passages.

The word "catarrh," which in recent times has acquired such a very wide application, had, originally, as its derivation indicates, a very restricted one. Derived from the Greek verb καταῤῥέω, to flow down, it was applied by the ancient physicians to that very common affection of the nasal passages, which we call a "cold in the head." The characteristic increased discharge, or flow of mucus from the nasal mucous membrane, they termed a "catarrh"—a *flowing down*, as they thought, of fluid from the brain; and the pituitary gland was believed to be a principal agent in the separation of this fluid, which was supposed to flow down through the sphenoid bone.

It was only towards the end of the sixteenth century that Schneider showed the erroneousness of this view, by proving the absence of any canals through which such a flow could take place, and maintained that it was due to an increased separation of fluid from the blood by the mucous membrane of the nose, henceforth termed the Schneiderian membrane.

This ancient belief is, however, still perpetuated in the common French expression, *rhume de cerveau*, for a cold in the head; and if you happen to sneeze in the waiting-room of a railway station in the South of Europe, you may, perhaps, be surprised to hear a peasant in your neighbourhood suddenly bestow upon you what is meant as a benediction. He intends to congratulate you on having got rid of something which may have been obscuring your mental faculties.

Nowadays a "catarrh" means an abnormal increase in the secretion of any mucous membrane, due to hyperæmia, or inflammation of the same. This inflammation may be *acute* or *chronic*, slight or severe, a mere passing irritation, or a more or less permanent malady. So that we now not only speak of *nasal*, *pharyngeal*, *laryngeal*, and *bronchial* catarrhs, but also of gastric, duodenal, and intestinal catarrhs, catarrh of the bile ducts, and also of vaginal, urethral, vesical, and uterine catarrhs; meaning in all these cases an inflammation (or hyperæmia) of a mucous membrane,

attended with an increase of, or a modification in, its natural secretion.

For the present we are only concerned with catarrhs of the respiratory mucous membrane, and first of all, we shall consider the occurrence and management of that very common and often distressing form of catarrh which is variously termed "coryza," "rhinitis," "nasal catarrh," or more commonly "cold in the head."

I need scarcely tell you that the lives of certain persons are troubled by a tendency to constantly "catch cold," as it is termed. I regret to say I am myself not free from this predisposition. But it is a curious fact that while some persons have a proneness to become afflicted with nasal catarrh, others will exhibit a tendency to pharyngeal catarrh, others to laryngeal, and others to bronchial catarrh. There are persons who are frequently the subjects of nasal catarrh, and even of laryngeal catarrh, but who never suffer from bronchial catarrh; and conversely, there are many who, although, frequently the victims of bronchial catarrh, never suffer from nasal or laryngeal catarrh.

In my own personal experience, I find a nasal catarrh will, if neglected at its onset, occasionally extend into the larynx; but it stops there, and has never yet extended lower along the respiratory passages. To antagonise this predisposition to catarrhs of the air passages, is an important consideration in their management. So also is the possibility of their spread by contagion.

It is a popular belief that "colds in the head" are catching! and it certainly is remarkable the way in which they run through families and households. Some account for this by assuming the existence of an "epidemic" influence associated with meteorological conditions, and no doubt these affections are at times epidemic, but they frequently occur and spread through families when their origin and extension cannot be so accounted for. Fraenkel remarks that he has often observed bridegrooms who have never before suffered from coryza, become attacked by this malady on marrying brides who have been prone to such attacks!

The chief cause of nasal as well as of other catarrhs of the air passages is no doubt the existence of an undue impressionability of certain portions of the surface of the body to even slight changes of temperature. Also the extreme excitability of the nasal mucous membrane in some persons to the contact of certain substances is a well known cause of catarrh. The pollen of grasses and other plants produce in some persons distressing attacks of so-called "summer catarrh" or "hay fever." The perfume of a rose has been known to have the same effect, and I have seen the most distressing attack brought on by turning over the leaves of a book that had long been undisturbed on the library shelves.

The treatment of acute nasal catarrh may be conveniently considered under three heads:

1. Prophylactic treatment.
2. General remedies.
3. Local remedies.

(1) *Prophylactic Treatment.*—The predisposition to suffer repeatedly from attacks of coryza may be greatly diminished by suitable prophylactic measures. The most important of these is the adoption of some hardening process which shall have for its object the removal or diminution of a certain hyper-sensitiveness of the skin and mucous membrane which characterises such patients.

Avoidance of sedentary habits and free exercise in the open air are of great value. Cold affusion over the head and neck, begun in warm weather and steadily maintained throughout the whole year, is of undoubted efficacy. The use of the *shower-bath* for this purpose has been strongly advocated, but there are not many persons who can tolerate a cold shower-bath all the year round, but most persons can bear two or three large spongefuls of cold water wrung out over the head and neck on first rising in the morning.

This process imparts contractile vigour and tone to the superficial vessels and counteracts the tendency to vascular dilations and hyperæmia, upon which catarrhal conditions mainly depend.

A tendency to nasal catarrh and to other catarrhal states is excited and maintained by residence in low-lying, damp, cold situations; and it is hopeless to endeavour to relieve, permanently, such conditions while the subjects of them continue to dwell in these localities. It follows that one of the best prophylactic measures against attacks of nasal catarrh is residence in a dry, bracing locality.

No measure is perhaps so efficacious, as a preventitive to such attacks, as a few weeks' residence in a high, open mountain valley like that of the Upper Inn in Switzerland. I have myself experienced this in a remarkable degree. The dry, cold, bracing air of this region seems to be of especial value in lessening the morbid sensitiveness of the surface, so far as it tends to the production of catarrh of the respiratory tracts. I believe it acts partly by causing contraction of the superficial vessels and increasing their tone. It is quite otherwise with respect to the tendency to suffer from rheumatic pains when exposed to atmospheric vicissitudes. In such cases the climate of the Engadine generally aggravates the rheumatic tendency; and this it probably does by checking cutaneous transpiration.

(I have entered fully into this subject in some of the chapters in my work on "Health Resorts and their Uses.")

Next in value to mountain air, as a prophylactic, is well-directed sea bathing, during the summer months, associated with abundant exposure to the open air of the seaside. Such patients should not be allowed to remain long in the sea at one time; it is better they should make repeated plunges, for it is the bracing shock to the surface that is required, not the continued contact of the cold sea-water. At Biarritz they have a plan of standing just ankle-deep, or but little more, in the sea, and allowing the Atlantic surf as it comes in to dash over them. One of the best natural douches that can be imagined.

Persons who suffer from summer catarrh or "hay fever," are often immediately relieved on removal to the sea coast.

This treatment of combined sea-bathing and sea-air is of the greatest value to scrofulous children, who frequently show a tendency to attacks of nasal catarrh, which sometimes become chronic, and give rise to much trouble; for chronic nasal catarrh in scrofulous subjects is a most obstinate malady, and one difficult to treat with success.

(2) Next with regard to *General Remedies.*—Of all the general remedies advocated for the cure of attacks of coryza, opium or morphine is by far the best.

I have again and again tested its value, and often in my own person; and if it fails to cure or cut short a cold in the head, it at any rate takes from it all its terrors!

Opium undoubtedly exercises a remarkable effect over the capillary circulation, especially in the respiratory mucous membrane, and I have often known a single dose of opium completely arrest a catarrhal fluxion from the nose, which, from its abundance, entirely prevented sleep, and this in fifteen or twenty minutes.

But it is by no means a matter of indifference what method you adopt in administering the opium.

When you are able to treat the cold quite in its initial stage, when the nasal mucous membrane is only a little swollen and dry, and there is an uneasy feeling

over the frontal sinuses, and before the occurrence of any great amount of fluxion, the following I believe to be the best method :—

Supposing the patient to have had a good meal in the middle of the day, no more solid food should be taken that day, but about three or four hours before bedtime an eighth of a grain of acetate or sulphate of morphine (I use McKesson and Robbins' pilules of this strength) should be taken with a small cup of weak tea ; and at bedtime another eighth of a grain with a wine-glassful of whisky and water.

This measure alone will constantly arrest a cold in the head if adopted in the initial stage ; and even when this stage is passed, it will relieve all the uncomfortable distressing feelings which attend these attacks.

Yet you will often find it fail ; but it fails because both patients and doctors will not attend to small details. If you do not caution your patient to the contrary, he will probably eat a heavy evening meal, following the old-fashioned maxim of "feeding a cold," and take his dose of morphine on a full stomach. Now it makes all the difference in the world whether this small dose of morphine be absorbed into the blood in a few minutes, or whether it be mixed with a mass of food and absorbed slowly with it after some hours.

The result in the two cases is wholly different. In the first case you have a definite quantity of your remedy immediately absorbed into the blood and circulating with it ; in the second, your remedy is slowly absorbed in indefinite quantity, and there is no reason that I know of why some of it should not pass out of the body in the residue of the food with which you have allowed it to be mixed !

When the initial stage is passed, and the nasal fluxion is thoroughly established with a distressing feeling of oppression and stuffiness about the nasal passages and frontal sinuses, I have found the following diaphoretic draught, containing opium, to be of the greatest use. I have taken it myself and given it to others for many years.

℞ Liquor. Opii Sedat. ℥ xv.
Vini Ipecac. ℥ v.
Sp. Ætheris Nitrosi ʒ j.
Liq. Ammoniæ Acet. ʒ iij.
Aquæ Camphoræ ad ʒ i ss.

To be taken at bedtime.

If the patient is able to keep to the house, and better still, to one moderately warm room for a day or two, a single dose of this kind will not infrequently remove all the catarrhal symptoms permanently as well as immediately. But although it will surely give immediate relief, yet, if the patient exposes himself to changes of temperature the next morning the catarrhal condition will frequently return.

Opium given in this form is not attended by the unpleasant effects generally found to follow its administration in the crude, solid form, such as headache, nausea, loss of appetite, &c.

Some feverishness and slight rise of temperature frequently accompany these attacks, and in these, and indeed in all cases of the kind we are considering, we shall do wisely to give quinine in doses of one to two grains, three or four times a day. It is a valuable adjunct to the opium treatment.

I am accustomed to give it in effervescence in the following form, which seems agreeable and refreshing to patients :—

℞ Potassæ Bicarb. gr. cxx.
Ammoniæ Carb. gr. xxxii.
Syrupi Aurantii ʒ iv.
Aquæ ad ʒ viii.

M. ft. mist.

℞ Quiniæ Sulph. gr. ix.
Acid Citrici gr. cxx.

In Pulv. vi.

One of the powders, dissolved in water, and mixed with a sixth part of the mixture, to be taken three or four times a day.

In children and young people, when an attack of coryza is attended with decided feverishness, and particularly if the throat is involved, and its mucous membrane is found red and swollen, great benefit will follow the administration of a few doses of aconite. Indeed, aconite is extremely valuable in all the ephemeral and symptomatic fevers of children and young people.

I am in the habit of using Schieffelin's pilules of Duquesnil's aconitine $\frac{1}{480}$ gr. in each. I give one of these every two hours for three doses, and stop. Or you may give from one to three minims of the tincture (according to the age of the patient) every hour for three or four doses, and stop. My own experience of aconite teaches me that it is a drug which either produces an immediately beneficial effect, or is of no value. It is also a drug which is of much value in the initial stage of many febrile maladies, but of little or no use in advanced stages.

I should advise you, with regard to the internal use of aconite, to adopt this rule : give it only in a few doses at a time, and in the initial stages of disease ; never increase this dose largely, with the hope of obtaining better results from a large dose than you have been able to get with a small one.

It is of more apparent benefit in throat catarrhs, than in nasal or laryngeal catarrhs. I should rely, in the treatment of acute coryza, rather on opium and quinine ; but in children, and in persons who cannot take opium or quinine, you may give aconite, in the way I have stated, with advantage.

Camphor is a popular remedy for coryza ; a few drops of the spirit of camphor, dropped on sugar, or taken in water, every half hour, will in certain persons arrest a cold in the head, if taken in the initial stage ; but it is useless when this stage is passed, and not to be compared in efficacy with opium or morphia, given in the manner I have enjoined. Several cases are on record of poisoning by so-called homœopathic tincture of camphor, taken, in repeated doses, for this purpose.

Then there is what is called the *dry* cure, which was introduced by Dr. C. J. B. Williams. It consists in stopping the supplies of all liquids ; and so, by not adding any water to the blood, while the system withdraws from the blood the fluid required for the natural secretions, the quantity of fluid in the blood vessels is diminished and the local hyperæmia thereby lessened. The catarrh ceases because the supply of fluid to the blood is cut off ! The amount of fluid permitted was a tablespoonful of milk or tea with the morning and evening meals, and a wine-glassful of water at bedtime. But this has never been a popular method—the remedy appearing to many persons worse than the disease.

(3) Lastly, we have to consider the action of *Remedies applied Locally.*

It is rarely necessary to apply any local treatment to acute nasal catarrhs. Such treatment is more useful in the chronic forms of catarrh.

A common and popular method of attempting to cut short an attack of coryza is to inhale the vapours given off by a mixture of ammonia, carbolic acid, and rectified spirit. This mixture is dropped upon some absorbent substance introduced into a bottle and the vapour given off is inhaled by the nostrils. When there is much distress from swelling and dryness of the nasal mucous membrane, relief may be obtained by the inhalation of moist soothing vapours ; the vapours of hot water, or of infusion of camomile, or of elder flowers, or of the decoction of poppy heads. These vapours may be inhaled from the orifice of a narrow-mouthed jug, which together with the mouth and nose of the patient are covered with a towel, or they may be con-

ducted directly to the nostrils by an india-rubber tube connected with the steam-generating apparatus.

When the secretion is profuse and the nostrils feel blocked up, benefit is sometimes obtained by the application of a warm spray of a weak solution of common salt or carbonate of soda (2 to 6 grains to the ounce), or Ems Water, for a quarter of a hour at a time, four or five times a day.

Some have strongly recommended the snuffing up of a powder composed of bismuth, tragacanth powder and morphine, in the early stage of nasal catarrh. But many persons object strongly to the introduction of a sticky powder into the nostrils.

You will often find during or after an attack of acute nasal catarrh, that the catarrhal condition will extend into the pharynx and spread not unfrequently to the mucous membrane of the upper part of the larynx. The patient will then complain of an uncomfortable feeling in the throat, especially in swallowing his saliva, and he will often also be tormented by a troublesome tickling cough. This cough is generally aggravated during and after meals, and is particularly annoying on lying down in bed at night.

On looking into the throat you will usually find the soft palate and uvula somewhat relaxed, a spongy aspect about the tonsils, and the mucous membrane of the pharynx redder than usual and covered with whitish mucus in patches or streaks.

The reason why, in some of these cases, the patient only complains of cough when he assumes the horizontal position is because then the larynx falls back against the posterior wall of the pharynx, and the drainage of the catarrhal secretion from the pharynx, instead of flowing off by the œsophagus, trickles into the aperture of the larynx, and so excites cough. Sometimes the trailing of an elongated uvula has the same effect

When the cough is brought on by eating and drinking, the catarrhal state has probably extended to the upper part of the larynx, and the increased supply of fluid and nutritive material to the blood is attended by increased fulness of the vessels, and increased secretion from the catarrhal surface, thus giving rise to cough for its expulsion. Local treatment is of especial value in relieving these conditions.

The mucous membrane should be cleansed of the more or less tenacious mucus adherent to it by alkaline sprays or gargles. Warm Ems and Bourboule Water are both good for this purpose ; or a warm spray of a solution of carbonate of soda, 5 to 10 grains to the oz., to which a few grains of common salt and a few drops of glycerine are added, may be advantageously used.

These solutions may be applied by means of a hand spray, or a Seigle's steam spray producer.

The mucous membrane having been thus cleansed by these alkaline sprays, astringent applications will now take much greater effect on the dilated vessels, and gargles and sprays of solutions of alum, or tannin, or perchloride of iron will be found useful. Or stronger solutions may be applied directly to the pharynx by means of brushes. The glycerine of tannin of the British Pharmacopœia is a good application in some cases.

In some instances gargles containing both alkaline and astringent ingredients prove very serviceable, and many patients prefer them to the trouble of spraying. A good gargle for this purpose consists of 1 drachm of chlorate of potash, 2 drachms of aromatic spirits of ammonia, and half-an-ounce of tincture of catechu to 8 ozs. of water. Another good form consists of half-an-ounce of glycerine of borax, 1 drachm of chlorate of potash, half-an-ounce of tincture of Rhatany, and 8 ozs. of water.

If there is much laryngeal irritation an occasional lozenge of morphine and ipecacuanha will usually allay it. But in troublesome cases, you will find one of the most reliable resources for getting rid of the catarrh and with it the teazing cough, is to brush the mucous membrane of the pharynx, the posterior surface of the soft palate and the upper part of the larynx, so far as it is readily accessible, with a solution of nitrate of silver, 10 grains to the ounce. I have found this expedient give speedy relief when other measures have failed.

Gargling the throat with ice-water before sitting down to a meal, or before going to bed, will often, in slight cases, prevent the attacks of cough of which I have spoken. In similar instances, a gargle of port wine after a meal is both pleasant and serviceable.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society of London.

(Continued from page 627.)

Diphtheria and Croup.

UNDER the head of *Aphthæ*, I shall allude to the fact that Anglo-Indian children and adults returned from the East often suffer severely from exudative inflammation of the soft palate and fauces, which, at first sight, suggests the idea of diphtheria, and which has, I believe, been mistaken for that disease, much to the detriment of weak and nervous patients. I have seen a good deal of thrush in patients, mostly aged, dying from exhausting diseases ; the alliance of this condition to diphtheria appears to be very close.

Nothing but the discovery of exudation in the air passages of one whose symptoms I had observed to be those usually ascribed to true croup—not those of ordinary diphtheria—would convince me that I had seen a case of deadly croup. Never having seen such a case, I remain in a state of agnosticism on this important point ; but, as I have already said, with a strong bias towards the opinion of those observers who regard "membranous croup" as "diphtheria of the air passages."

Mackinnon describes *Hooping Cough* as being epidemic in India (p. 128). In his experience, it was not extremely prevalent or aggravated in type in the plains of the North Western Provinces. But, when he wrote, it was very severe at the hill stations, "where," he says, "many deaths take place from it yearly among the European children." This was written just as I went to India. I did not hear of the occurrence of such deaths in my time. He adds, "It prevails as an epidemic all over the plains of the Ganges, usually in a very mild form, and most commonly showing itself at the same time of the year with the exanthemata so allied to it in many particulars."

In a later communication[7] Mackinnon stated his opinion that the exanthemata and hooping cough are all known most commonly to show themselves at the change of season which ushers in the hot weather. He has sometimes seen the disease "so mild as to render it difficult to distinguish it from common cough, although the manner in which the cough attacks, in fits more or less violent, and the specific hoop ought to be enough to guide us." Noting the fact that an attack usually renders the individual exempt from future visitation, he observes, that he has known children, who have had well-marked hooping cough in India, have the disease again severely in Europe. He again notices that, at some of the Indian hill stations, the disease is

[7] *Ind. An. Med. Sc.*, No. 3, for 1855, p. 178.

severe and even fatal; which, he adds, seems to be another proof that, in the plains, it owes its generally mild character to the high range of temperature.

In a return, showing that the average strength for three years of European soldiers' children was 2,291, he found that there were only 23 cases of pertussis, being about eight per annum out of that strength. There was only one death.

In his invaluable statistical tables, so frequently cited in these chapters, my friend, Surgeon-General Hugh Macpherson, shows that, during the four years ending 1853–54, there occurred, in the European regimental hospitals in the Bengal Presidency, six cases of hooping cough among soldiers, but no deaths. No cases of officers or women; 29 cases among children, or $\frac{3}{10}$ per cent. of strength, and two deaths or $6\frac{9}{10}$ per cent. of treated. Dr. T. Farquhar reported that, at Mussoorie in 1862, there were 45 cases of hooping cough and one death from pneumonia.

Among the 7,596 *children* of European soldiers in India in 1880, there were 104 admissions for hooping cough and three deaths. In 1881, there were admitted in Bengal 27 children, in Madras 12, and in Bombay 28, of whom two died. In 1882, there were 22 admissions and one death in all India. In the three years only one of the large body of native prisoners was attacked—in 1881; in 1880, two Bengal Sepoys had hooping cough; and in 1881, a Bombay man was admitted. No other cases occurred in our native army in the three years.

Hooping cough prevailed from time to time in Calcutta. Few of the cases which I had were severe, but, when tracheotomy was recommended in pertussis, I opened, ineffectually, the trachea of an East Indian infant at the moment when it ceased to breathe. A man in my ward was in considerable danger from pneumonic complication. I never saw phthisis set up by pertussis in India, and I did not hear of European children sent home to recover from its effects. Morehead says, "In Dr. Coles's Report on Measles in the Byculla Schools, allusion is made to the presence of three cases of hooping cough at the same time. I do not find any account of the epidemic prevalence of this disease in these schools: but my impression is that it has occurred, from time to time, during the last twenty years. In a note to the case of a child who died, as he considered, after recovery from hooping cough, Webb remarked, "This is the only fatal case which I have met with in hooping cough in India. The disease has twice gone through the children of the Government Orphan School during the last four years, and once through La Martinière Institution."

Parotides.—Mumps are occasionally epidemic in India, the disease usually assuming the ordinary mild European type, and being unattended with severe fever or grave complications. But, on one occasion, I witnessed an unusual outbreak of this malady. There was, at Howrah, a single row of unhealthily situated detached houses, leading down to Tel Khal Ke Ghat, principally inhabited by respectable Europeans. In front, separated only by the highway, ran an open, ill-dug earthen ditch, which was intended to carry the excreta of the large native jail to the river Hooghly, but was practically an elongated reservoir of stagnant filth. Several European children in this row were attacked with mumps. The disease appeared to be endemic; I did not see or hear of any cases elsewhere. In most of the cases the attack was mild and the children did well; but, in one of the houses, two fine little European boys became the subjects of acute membranous laryngitis, without the constitutional symptoms of diphtheria, when the parotid swelling was subsiding. There was no exudation about the fauces, but vomiting detached shreds from the air passage. The younger boy died suddenly while in the act of coughing. I found that the exudation tube, having become detached below, had been forced upwards and rolled together, and had completely filled and blocked the larynx. Had I been present when the accident occurred, laryngtomy would probably have saved him. The elder brother did well. The coincidence of diphtheria with mumps has been observed elsewhere. Morehead says,[8] that cynanche parotidæa attacked the Byculla girls' school, Bombay, in March, 1837. Seventy-four girls were affected, not a single boy. Mr. Carter reported that it broke out among the boys in October and November, 1851. Seventy-five boys were affected, but only two girls.

The returns show that, in 1881, there were 23 admissions of European soldiers' children, for mumps, in all India. During that year the admissions of Sepoys, under this heading were 1,180, in a strength of 114,612. Of the 100,844 prisoners, 785 had mumps. It is noteworthy that in this year Sepoys were attacked in all the Presidencies, so also was the jail population, who are much isolated. There were some cases among the prisoners in British Burmah, and in the Andaman Islands. It is not shown whether the European soldiers were attacked; their wives were not. Cases occurred among their children in each of the Presidencies. In 1882, 2 soldiers' wives and 14 of their children were admitted, and 901 Sepoys and 769 prisoners had mumps, the disease occurring throughout British India and Burmah, but not in the Andamans.

Influenza.—Dr. John Adam placed on record[9] an account of what he termed an "epidemic bronchitic fever" of infants and young children, which prevailed in Calcutta during the rains, or months of June, July, and August, 1828. This was preceded by a perhaps less general epidemic in 1824. In Dr. Adam's experience, not one child under four years of age out of a hundred escaped an attack. The victims were, for the most part, fine infants at the breast. Death did not occur in any child above two years old. The symptoms were those of capillary bronchitis, ushered in by a febrile paroxysm. In convalescence, there was a "degree of weakness which was extremely protracted and difficult to remove." This epidemic was not confined to the city and suburbs of Calcutta, but extended to many stations in Lower Bengal. It prevailed at Chinsurah, Burdwan and Bhauleah, and even as far northward as Maldah. In Calcutta native children do not appear to have been attacked; but at Burdwan they suffered considerably. Here the adult natives had fever similar to that of the children, with the difference that "it was accompanied by a troublesome ophthalmia."

This epidemic appears to have about doubled the average death-rate of European infants in Calcutta. Three years later, in 1831, a remarkable outbreak of influenza occurred in Penang and Java. It was described by Dr. T. M. Ward[10] as "the epidemic catarrh which prevailed at Penang in July and August, 1831." Few of the inhabitants escaped a more or less severe attack. It affected at once whole families, attacking both sexes, young and old, of all races indiscriminately. It destroyed many old and infirm natives. There was fever with bronchitis. "The depression of strength and spirits was considerable during the continuance of the febrile symptoms;" and, in convalescence, "the patients were weak and languid."

Again, three years later, in January, February, March, and April, 1834, it was reported[11] that "catarrh prevailed in Calcutta on so general a scale that it might be termed epidemic." "It attacked equally children and adults." "It ran its course through families with

[8] *Op. Cital.*, p. 201.
[9] *Trans. Med. & Phys. Socy. of Calcutta*, vol. iv., p. 320.
[10] *Cal. Med. and Phys. Trans.*, vol. vi., p. 125.
[11] *Ind. Jour. of Med. Science*, vol. i., pp. 67 and 146.

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great severity." "In some cases the affection of the head and larynx was very severe," and in others pneumonia occurred; but there do not appear to have been any fatal cases. This was distinctly recognised as influenza. Two years and seven months later still, occurred the great outbreak of influenza in England and France. Although I was a young student, I watched the progress and effects of the terrible influenza epidemic with which London was visited at the end of 1836 and in 1837, very fully and carefully, at Guy's Hospital. The main characteristics of this outbreak were debility and capillary bronchitis. Multitudes of aged people died; and, for several years afterwards, phthisical patients traced back their loss of health to the influenza of 1837. Webb, writing in 1848, speaks of the "severe influenza of Bengal;" but Mackinnon[12] says, with less than his usual cogency of argument, that influenza had not been described by Indian authors, and that the disease was unknown in India. Assuredly there was not any great outbreak of influenza in that country in Mackinnon's or in my own time. I never saw anything of the kind there graver than a prevalent catarrh, neither has the United Kingdom been ravaged by this disease since 1837. Still I fully believe that, wherever catarrh or bronchitis runs through a town or a household, as they frequently do, both in India and at home, the malady is influenza, epidemic or endemic.

I am confident that any epidemiologist who will carefully review, in the originals, the narratives which I have cited, will feel convinced that an influenza wave extended from India to England between the years 1824 and 1837.

I saw a fatal case of *Glanders* at Guy's, and offered to examine the body after death, but was not allowed to do so. I never saw this disease, or *Farcy*, in the human subject in India, although these maladies frequently attack studs in that country. A marked case of glanders, occurring in a native syce driver belonging to the 5th Battalion of Artillery, who was found to have had something to do with the veterinary department, and ten weeks previously had assisted in a *post-mortem* examination of a horse which died with a discharge from the nostrils, was described[13] in 1855 by Mr. Halls.

For *Phagedæna*, vide *Paludal Cachexia* [vol. ii. for 1883, p. 737], *Scorbutus*, and *Hospital Gangrene*.

(*To be continued.*)

AN EXAMINATION OF THE THEORY OF AËRIAL DISSEMINATION OF SMALL-POX INFECTION.

By MONTAGUE D. MAKUNA,
Late Medical Superintendent of Fulham Small-pox Hospital.

(Continued from page 729).

The Year 1879.

We learn from the Report of the Registrar-General that during the year there were 458 deaths from small-pox in London, of which 10 were in Kensington, 5 in Chelsea, and 118 in Fulham, including 111 in Fulham Small-pox Hospital. The Metropolitan Asylums Board Hospitals admitted 1,685 patients, including 144 from Fulham, 113 from Kensington, and 105 from Chelsea. The Highgate Hospital had admitted 7 from Chelsea, 5 from Kensington, and 1 from Fulham. The cases reported to the Medical Officers of Health, were 166 in Fulham Union, of which 133 were in Fulham parish, 139 in Kensington, and 121 in Chelsea, giving 426 known cases in the three districts. By calculating 15 per cent as mortality among private cases, we estimate the total incidence for the three districts, 521 cases, of which Mr. Power accounts for 382 cases. The proportion of cases unaccounted for this year is not so large as in the previous years, on account of the better organisation for the removal of cases to the Metropolitan Hospitals and for effectually dealing with the concealment of cases. I utilised my experience of the previous two years, and conducted my investigations into the history of the cases with more precision and better results. I discovered that small laundries in Chelsea were a fruitful source of the disease, as infected clothing of concealed and private cases was washed without any precaution. The washing of many families in the S. A. was done there. A severe outbreak occurred in Land's End, Fulham, ½ and ¾ mile R., principally in the families of workmen of the Imperial Gas Factory, in the months of April and May. The workmen also lived on the other side of the water, in Battersea and in Chelsea. There were several cases of small-pox in the families at Battersea, and some of them were sent to Fulham Hospital in February and March, which clearly demonstrates that the disease was imported in Sand's End, Fulham, as will be seen from the detailed history to follow. In my Annual Report I pointed out to the Managing Committee of the Fulham Hospital several imperfections, and the insanitary condition of the buildings, and recommended improvements and proper accommodation for the members of the staff—defects existing with the opening of the hospital, which were left unnoticed as in the past years.

January.—Fulham Hospital admitted 31 acute cases, viz., 6 from Fulham, 3 from Kensington, 3 from Chelsea, 8 from St. George's, 4 from Wandsworth, 3 from Paddington, 1 from Strand, 1 from St. Giles's, and 2 from St. Saviour's; 25 convalescents were transferred from other hospitals. The cases known to Health Officers were 7 in Fulham, 4 in Chelsea, and in Kensington, during the four weeks ending 5th February, 7 cases. The weekly number of cases under treatment in Fulham Hospital was 17, 18, 19, 50 and 44.

Fulham Cases.—All admitted to Fulham Hospital. (1) One from 11, Farm Lane, C. C., on the 21st. Infected street. (2) One from 16, Hildyard Road, C. C., on the 31st. Infected street. (3) One from 6, Caroline Place, ¾ mile R., on the 19th. (4) One from 27, Rectory Place, 1 mile R., on the 24th. (5) One from 21, Coomer Road, 1 mile R., on the 31st. (6) One from Hammersmith Baths, O. S. A.

Kensington Cases.—(1) A waiter treated at home in 109, Ifield Road, C. C. Dr. Dudfield states he was engaged in obtaining signatures to a memorial to Sir C. Dilke, to bring in a Bill to do away with the Fulham Hospital. He probably took the disease while about his singular mission. He did his best to conceal his case. (2 to 5) Four cases in Richmond Road, ½ mile R. A domestic from 90, on the 6th, to Fulham Hospital. Two fatal cases of a recently confined mother and the infant at 70, revealed by the death certificate of the mother. A fishmonger in 104, who also tried to conceal his case from the lodgers, was treated at home. (6) A domestic from 29, Hollywood Road, ½ mile R., to Fulham Hospital, on the 1st. (7) A cook, from 29, Coleherne Road, ½ mile R., to Fulham Hospital, on the 10th. (8) A barmaid died at home on the 11th, at 4, Pelham Street, O. S. A.

Chelsea Cases were—One from 64, Church Street, 1 mile R., to Fulham. (9 and 10) A coachman and his wife, private concealed cases in Sumner Mews, O. S. A.

[12] "On the Epidemics of Bengal and the North West Provinces," *Ind. An. Med. Sc.*, No. 5, p. 128.
[13] *Ind. An.*, No. 4., p. 707.

Chelsea Cases.—One from 64, Church Street, 1 mile R., to Fulham Hospital on the 9th; and one each from Markham Street and Keppel Street, O. S. A.

February.—Fulham Hospital admitted 107 acute cases, viz., 15 from Fulham, 8 from Kensington, 23 from Chelsea, 32 from St. Saviour's, 9 from Wandsworth, 5 from St. George's, 2 from Westminster, 10 from Lambeth, 2 from Paddington, and 1 from Brentford. Highgate Hospital admitted 3 from Chelsea. The Health Officers report 17 cases in Fulham, 27 in Chelsea, and in Kensington, during four weeks ending 5th March, 11 cases. The weekly number of cases under treatment in Fulham Hospital was 62, 79, 90 and 93. Of the Wandsworth cases 5 were from Battersea, S. A. One was a brother of a workman in the Imperial Gas Factory, who was admitted last month; a lighterman from Bridge Road, two labourers and a laundress.

Fulham Cases.—Admitted to Fulham Hospital. (1 and 2). A girl from 6, and a smith from 38, Farm Lane, C. C., on the 20th. Infected street. (3) A married female from 9, Jordan Place, ½ mile R., on the 5th. (4 and 5) Two boys from 6, Stanley Road, ½ mile R., on the 7th and 9th. An infected street. (6) A girl from 3, Percy Place, ½ mile R., on the 13th. (7) A labourer from 3, Schofield Terrace, ½ mile R., on the 15th. (8 to 10) A mother and a baby on the 23rd, and a child on the 27th, from 13, Little Ebenezer Place, ¾ mile R. (11 and 12) A girl from 12, and a girl from 19, Hilmer Street, ¾ mile R., on the 1st and 27th. An infected street. (13) A labourer from 18, Serf's Terrace, ¾ mile R., on the 4th. (14) A boy from 10, Broxholm Road, ¾ mile R., on the 19th. Infected house. (15) A girl from 21, Coomer Road, 1 mile R., on the 12th. Infected house.

Kensington Cases.—Admitted to Fulham Hospital. (1) A child from 3, Redcliffe Street, ½ mile R., on the 28th. (2) A labourer from 8, Child's Place, ¾ mile R., on the 27th. Infected street. (3) A boy from Industrial School, 1 mile R., on the 23rd. (4 to 8) Five from O. S. A., viz., one each from Lonsdale Road, Moreton Gardens, Goldborne Road, Cornwall Road, and William Street.

Chelsea Cases.—(1) A labourer from 6, Seaton Street, ¾ mile R., on the 8th. (2 to 26). Twenty-five from O. S. A., viz., 3 from Godfrey Street, 3 from Cole Street, 2 each from Norman Street, Markham Terrace, Sloane Street, Brewer Street, and Jubilee Place; and one each from Rawling's Street, Smith Street, Albert Cottages, Little College Street, Francis Street, Exeter Place, College Place, and Marlborough Road. This outbreak was caused by a fatal concealed case in 46, Godfrey Street, O. S. A., and the case of the landlord of the public-house "Blenheim." Eighteen of the above cases were traced to this source. Many infected families migrated from the neighbourhood, after the outbreak, into various localities. The unequal distribution of cases in the several areas of Fulham, Kensington, and Chelsea, and at widely different dates, occurring in infected streets, points to outbreaks due to local causes—a feature I have repeatedly pointed out in the history of 1877, and 1878. It will also be made evident in the history of the years 1879 and 1880.

March.—Fulham Hospital admitted 112 acute cases, viz., 24 from Fulham, 22 from Kensington, 17 from Chelsea, 21 from St. Saviour's, 7 from Lambeth, 7 from Wandsworth, 3 from Westminster, 1 from St. Giles's, 2 from Brentford, and 8 from St. George's. Highgate Hospital admitted one from Kensington. The Health Officers reported 19 cases in Chelsea, 24 in Fulham, and in Kensington, for four weeks ending 2nd April, 28 cases. The weekly number of cases under treatment in Fulham Hospital was 101, 98, 106 and 99. Of the Wandsworth cases five occurred in Battersea, on the outskirts of S. A., and one in the family of a workman in the Imperial Gas Factory, Sand's End, Fulham.

Fulham Cases.—(1) A married female from 9, Rickett Street, C. C., on the 7th. Some members of the hospital staff lived here. (2) A joiner from 16, Sherbrook Road, ½ mile R., on the 2nd. (3) A schoolmaster from 37, Cornwall Street, ½ mile R., on the 3rd. (4) A married woman from 4, Whitechurch Cottages, ½ mile R., on the 4th. (5 and 6) A carpenter and his wife from 20, Bective Road, ½ mile R., on the 9th and 24th. (7) A labourer from 27, Bullow Road, ½ mile R., on the 9th. (8) A labourer from 3, Carpenter's Row, ½ mile R., on the 13th. He was at work in the Imperial Gas Factory till the fourth day of eruption. (9) A workman in the same Gas Factory from 21, Cornwall Street, ½ mile R., on the 14th. He was at work till the seventh day of eruption. (10) A boy from "Stamford Arms," ½ mile R., on the 27th. (11 and 12) A warehouse boy from 8, and a carman from 55, Victoria Road, ½ mile R., on the 23rd and 29th. (13 and 14) Two from 13, Little Ebenezer Place, ¾ mile R., on the 3rd and 6th. An infected house. (15) A messenger from 10, Broxholm Road, ¾ mile R., on the 4th. An infected house. (16) A child from 8, George's Square, ¾ mile R., on the 7th. The case was treated at Kensington Dispensary. (17) A plasterer from 7, Crown Road, ¾ mile R., on the 19th. (18) A domestic from 7, Parson's Green, ¾ mile R., on the 20th. An infected house. (19 to 24) Six from O. S. A., viz., 1 each from Devonport Road, George Street, Flora Villas, Rose and Crown Lane, Dalling Road, and Broadway.

Kensington Cases.—(1 to 4) Four from Ifield Road, C. C.; a domestic from 126, in a dying condition on the 2nd; a married female from 158 on the 19th, believed to have been infected by previous lodgers; the family migrated to 95; a barmaid from 59 on the 15th. She took it from No. 16 Fulham case for this month; 1 from 22 on the 21st. (5 and 6) Two domestics from 113 and 54, Finborough Road, C. C., on the 8th and 23rd. (7 and 8) Two from Redcliffe Gardens, ½ mile R.; a domestic from 100, on the 11th, a domestic from 76, on the 27th, by visiting her aunt at 87, Adrian Terrace. (9) A domestic from 24, Redcliffe Mews, ½ mile R. An infected house. (10) A domestic from 13, Tregunter Road, ½ mile R., by visiting her relations in South Parade, Chelsea. (11) A shoemaker from 40, Seymour Place, ½ mile R., on the 29th. (12) A stableman from 21, Kranmer Mews, ½ mile R., on the 3rd. (13) A mason from 7, Shaftesbury Terrace, ¾ mile R., on the 5th. (14 to 23) Ten from O. S. A., viz., 5 from 329, Portobello Road (a baker's shop and a dairy), where there had been a fatal concealed case without isolation or any precaution from 24th February to 8th March, and the death certificate was returned as "Congestion of the Lungs." One each from Warwick Terrace, Norland Square (from a concealed fatal case), Queen's Road (from the one preceding), Yeoman's Row (infected street), and Royal Crescent.

Chelsea Cases.—(1) One from 46, Slaidburn Street, ¾ mile R., on the 21st. Infected house. (2) One from 14, Park Walk, ¾ mile R., on the 28th. (3) A domestic from 7, Hans Place, 1 mile R., on the 7th. (4 and 5) An ironer from 478, King's Road, 1 mile R., on the 5th, and a domestic from 303, on the 29th. (6 to 17) Twelve from O. S. A., viz., 2 from Manor Buildings (infected), 1 each from Ovington Street, Cheyne Walk, Robert Street, Langston Street, Onslow Dwellings, Pimlico Road, White Hart Court, Charlotte Street, Portobello Terrace and George Street; 6 of these cases were traced to the fatal case at 43, Godfrey Street, whose history is given in last month.

April.—Fulham Hospital admitted 106 acute cases, viz., 36 from Fulham, 24 from Kensington, 17 from Chelsea, 8 from St. Saviour's, 5 from Lambeth, 4 from St. George's, 6 from Wandsworth (of which 5 were from Battersea), 2 from Paddington, 2 from West-

minster, 1 from St. Giles's, and 1 from Brentford. The Health Officers reported 41 in Fulham, 18 in Chelsea, and 27 in Kensington. The Highgate Hospital admitted 1 from Kensington and 1 from Chelsea. The weekly number of cases under treatment at the Fulham Hospital was 84, 82, 83, and 94. The Fulham Hospital is between the Lillie Bridge and Stamford Bridge Running Grounds, and on the 4th, 11th, 14th, and 15th of April, thousands of people from all parts had congregated there to witness the sports. Dr. Dudfield addressed a letter to the medical profession through the medical journals, requesting information regarding any patient with small-pox that might occur in their practice, who might have visited those grounds, to put the question of aërial dissemination of small-pox infection to a practical test, when the hospital was in full working and the admissions were large. He received no reply to it. My enquiries amongst subsequent admissions did not give any better results, nor, I believe, did others, even the opponents of the hospital, get any information. Had there been a charging of atmosphere with infection, as Mr. Power would have us believe, we might have received some corroboration of his opinion.

Fulham Cases.—(1) A boy from 6, Bullow Road, ½ mile R., on the 26th. (2) A smith from 14, Rock Avenue, ½ mile R., on the 25th. (3) A joiner from 30, Cornwall Street, ½ mile R., on the 25th. (4) A mason from 7, Cambridge Terrace, ½ mile R., on the 5th. (5) A labourer from 40, Clyde Road, ½ mile R., on the 28th. (6 to 16) Eleven from Tyrrell's Cottages, ¾ mile R.; 8 from 4, a family of Hook's, a workman in the Imperial Gas Factory, where men with eruptions on them were at work; and, as is shown above, first outbreaks occurred among them in Battersea and Chelsea. Three from No. 5, next door, another workman's family. First on the 18th and the last on the 23rd. (17) Another workman from 11, Rear Gate, ¾ mile R., on the 23rd, a brother of the Hooks. (18 and 19) Two children of another workman from 25, Imperial Cottages, ¾ mile R., on the 24th and 26th. Traced to Hook's. (20) A woman from 19, Stanley Road, ½ mile R., on the 28th. She had removed from 5, Tyrrell's Cottages, on the 22nd. (21) A barman from "Adelaide Arms," ¾ mile R., on the 28th. Traced to Hook's. (22) One from Rose Cottage, ¾ mile R., on the 29th. Traced to Hook's. (23 and 24) Two from 1, Sand's End Lane, ¾ mile R., on the 22nd and 29th. Traced to Hook's. Thus the preceding 19 cases were traced to one source, and caused by the concealment of a case at home, which was treated by a medical man for measles till too late. The particulars of this outbreak cast a serious reflection on the medical men who have cared more for themselves than for public health and good of others. Space forbids me from giving the details. (25 to 29) Five from another workman's family at 7, Wheatsheaf Alley, ¾ mile R., and 1 on the 25th, and 4 on the 30th. Caused by a concealed case. (30 and 31) Two workmen from Peterboro' Lane, ¾ mile R., on the 14th and 29th. (32) A boy from 3, Providence Row, ¾ mile R., on the 6th. (33 to 36) Four from O. S. A., viz., 1 each from Latimer Road, Carlton Terrace, Fulham Workhouse, and Rutland Terrace. The last one was a son of a railway inspector. He first lived in Notting Hill, and left a child ill with small-pox in charge of a woman, and migrated to Walham Green, ½ mile R., where his wife died of small-pox. He then shifted to the above address. After the removal of his son to hospital he took up his lodgings near Earl's Court Station. He was at work on the station all the while! He left all the houses infected.

Kensington Cases.—(1 to 6) Six from Ifield Road, C. C. An infected street. A domestic from 51, Ifield-road, on the 20th, by visiting at 68, where there were 3 concealed cases. A mason from 83, on the 17th. A blacksmith from 26, on the 23rd. A girl in 48, reported on the 12th. A painter in 36, reported on the 19th. A workman in 126, on the 19th. Most of these houses inter-communicate, and the cases might have come in contact with concealed ones. (7 and 8) A domestic from 49, Finborough Road, C. C., on the 6th. Another from 127, walked down to the hospital on the 1st. She was in the service of a member of the Managing Committee of Fulham Hospital. (9) A waistcoat maker from 8, South Street, C. C., on the 28th. She came to live here on the 26th, from Notting Hill. (10) A domestic from 57, Redcliffe Square, ½ mile R., on the 13th, by visiting her sisters in Shaftesbury Road, where there were cases of small-pox. (11) A domestic from 47, Redcliffe Square, ½ mile R., on the 17th. (12) One from 3, Earl's Court Square Mews, ½ mile R., on the 18th. (13) A domestic from 45, Tregunter Road, ½ mile R., on the 18th. (14 and 15) A domestic from 26 and another from 29, Coleherne Road, ½ mile R., on the 21st and 23rd. (16) A painter from 26, Seymour Place, ½ mile R., on the 21st, by visiting his friends in 68, Ifield Road. (17) An errand boy from 14, Ashley Cottages, ¾ mile R., on the 3rd. (18) A painter from 56, Earl's Court Road, 1 mile R., on the 21st, from a private case. (19) A domestic from 135, Gloucester Road, 1 mile R., on the 15th. (20 to 28). Nine from O. S. A., viz., 3 from Dartmoor Street, and 1 each from Warwick Terrace (infected house), Yeoman's Row (infected house), Archer Mews, South Place, Brompton Consumption Hospital (infected at home in Walham Green), and Queen's Gate (infected at home in Charlotte Street Chelsea.)

Chelsea Cases.—(1) A domestic from 231, Fulham Road, ¾ mile R., on the 14th. (2) A domestic from 33, Little Camera Street, ¾ mile R., on the 16th. (3) One from 4, Limerston Street, ¾ mile R., to Highgate Hospital, on the 18th. (4) A baker from 69, Arthur Street, 1 mile R., on the 15th. Caught it from one of his customers. (5 to 17) Thirteen from O. S. A., viz., 6 from 1, Charlotte Street (a case from the same house in March last), and 1 each from Schofield Street, Redburn Street, Anderson Street, St. Anne's Convent (infected house), Wickham Place, Lawrence Street, and 2 from Portobello Terrace.

May.—Fulham Hospital admitted 92 acute cases, viz., 25 from Fulham, 16 from Kensington, 9 from Chelsea, 9 from Wandsworth, 4 from Putney, and 5 from Battersea, 6 from Marylebone, 4 from Paddington, 3 from St. Pancras, 3 from Lambeth, 8 from St. Saviour's, 8 from St. George's, and 1 from St. Giles'. Highgate Hospital admitted 1 each from Fulham, Kensington, and Chelsea. The Health Officers reported 33 cases in Fulham, 10 in Chelsea, and 10 in Kensington during the four weeks ending 28th May. The weekly number of cases under treatment at Fulham was 95, 102, 105, 93, and 92. There were 2 convalescents transferred from Hampstead Hospital. A newly appointed Manager of the Fulham Hospital Committee walked the hospital wards and took the disease. He was treated for skin affection by another manager, a medical man, and he went about town and country as usual. His wife took it from him. Her medical attendant protested against such a procedure and gave me all the facts of the case. (See *Medical Times and Gazette*, June 17th, 1882, case 8, page 634, and case 11, page 635).

Fulham Cases.—(1) A boy from 6, Garden Row, C.C., on the 7th, from a fatal concealed case. (2 and 3) A gardener, and his wife, a laundress, from 14, Farm Lane, C. C., on the 14th and 16th. The woman nursed three cases of small-pox in 10, Harwood Road, ½ mile R., where her husband was in service, and went backwards and forwards doing her laundry work. (4) A grocer from 1, Lillie Bridge Road, C. C., on the 16th. Four

weeks previously he engaged a girl from Crown Street, convalescent from small-pox; his son took the disease from her, and was concealed at home; he took it from his son, nursing him and minding the shop as usual. (5) A boy from 6, Bullow Road, ½ mile R. An infected house. (6) A female from 4, Kempson Road, ½ mile R., on the 22nd. Her landlady's child was treated for small-pox by a chemist, attending his shop daily. (7) One from 1, Cornwall Street, ½ mile R., on the 23rd. Infected street. (8) A laundress from 27, Maxwell Road, ½ mile R., traced to Hook's. (9) A workman in the Imperial Gas Factory, from 8, Wheatsheaf Alley, ¾ mile R., on the 5th. Five cases next door last month. (10) An ironer from 21, Crown Street, ¾ mile R., on the 8th. She took it from 7, Wheatsheaf Alley. (11) A boy from 26, Pamerall Road, ¾ mile R., on the 8th. (12) A stoker from 78, May Street, ¾ mile R., on the 10th. A hospital porter lived in the house with him. (13) A tailor from 28, Anselm Road, ¾ mile R., on the 13th. (14) A child from 19, Imperial Square, ¾ mile R., on the 16th. Traced to Hook's. (15) A child from 13, Broxholm Road, ¾ mile R., on the 17th. Infected street. (16) One from 67, Estcourt Road, ¾ mile R., on the 23rd. (17 to 26) Ten cases from O. S. A., viz., 2 from Southbrook Street, and 1 from Devonshire Villas, were traced to the same source; 1 each from Acton Vale Gardens, Faroe Road, Broadmoor Terrace (by washing infected clothing), Beaumont Street (from a concealed case outside the district), White Hart Court, St. John's Terrace, and Studland Street.

Kensington Cases.—(1) A gardener, from 44, Ifield Road, C. C., on the 11th. He was living here since 24th March, and a fatal case of small-pox had occurred in the house. (2) A flower mounter from 9, Stamford Cottages, ½ mile R., on the 31st. (3) A cook from 10, Rich Terrace, ½ mile R., on the 28th, from a concealed case. (4 and 5) Two cases were treated at Kranmer Mews, ½ mile R. (6) One from Edward's Square, 1 mile R., on the 30th. (7 to 9) Three from Earl's Court Road, 1 mile R., 2 from 32, on the 12th and 26th, caused by a private case; and 1 from 56, on the 6th, traced to the same source. A case from the same house last month. (10 to 12) Three boys from Industrial School, 1 mile R., 1 on the 12th, and 2 on the 13th. A boy from the same in February. (13) A boy from 25, Merton Road, 1 mile R., on the 26th, by visiting his relations in Lambeth, who was removed to Stockwell. (14) A butler, from 25, Onslow Gardens, 1 mile R., to Highgate Hospital, on the 12th. (15) A dressmaker from Abingdon Villas, 1 mile R., on the 31st. (16 to 19) Four from O. S. A., viz., 1 each from High Street, Bonchurch Road, Portland Road, and Victoria Grove. The last was caused by the visit of a convalescent, and removed to the hospital after he had been violently delirious, and driven in a cab.

Chelsea Cases.—(1) One from 109, Lot's Road, ½ mile R., on the 31st. (2) One from 43, Slaidburn Street, ¾ mile R., on the 3rd. (3 and 4) One each from 27, and 29, Luna Street, ¾ mile R., on the 8th and 29th. (5) One from 43, Seaton Street, ¾ mile R., on the 29th. (6 to 10) Five from O. S. A., viz., 1 each from Lower George Street (infected house), Moor Street, Wood Street, First Street, and Durham Street.

June.—Fulham Hospital admitted 82 cases, viz., 17 from Fulham, 25 from Kensington, 15 from Chelsea, 5 from Marylebone, 5 from St. George's, 5 from Paddington, 5 from St. Pancras, 2 from Brentford, 2 from St. Giles's, and 1 from Hampstead. Highgate Hospital admitted 1 from Chelsea. The Health Officers reported 20 in Fulham, 20 in Chelsea, and in Kensington 27, during the four weeks ending 6th June. The weekly number of cases under treatment was 99, 90, 82, and 82.

Fulham Cases.—(1) A child, from 2, Roxby Place, C. C., on the 23rd. On my suggestion, Fulham Sanitary Authorities made a house to house inspection, and discovered the case. A woman kept here a baby farm, and several cases of small-pox spread from here. (2) A coal porter in the Gas Factory from 4, Garden Row, C. C., on the 25th. Small-pox next door. (3) A woman from 7, Stamford Street, ½ mile R., on the 10th, traced to Hook's. (4) A clerk from 59, Waterford Road, ½ mile R., on the 7th, by visiting a friend's house where there were 3 cases of small-pox. (5) A woman from 14, Waterford Road, ½ mile R., on the 3rd. (6) A carpenter from 23, Vaunston Place, ½ mile R., on the 10th. (7) A labourer, from 32, Victoria Road, ½ mile R., on the 25th. (8) A gardener from 40, Britannia Road, ½ mile R., on the 1st. (9) A carpenter from 23, Vaunston Place, ½ mile R., on the 10th. (10) A coal porter, 6, Rose Cottages, ¾ mile R., on the 4th, traced to Hook's. (11) A boy from "Maxwell Arms," ¾ mile R., on the 10th, traced to Hook's. (12) A domestic from 7, Parson's Green, ¾ mile R., on the 9th. Infected house. (13) A cook from Peterborough Villas, ¾ mile R., on the 1st. Infected house. (14) A coachman from 15, Caroline Place, ¾ mile R., on the 28th. (15) A labourer from 9, Francis Street, ¾ mile R., on the 26th. (16) A dustman from 16, Field Road, 1 mile R., on the 5th. He cleared the dustbins of the Fulham Hospital wards a fortnight previous. (17) A workman in the Gas Factory, from 11, Peterborough Road, 1 mile R., on the 8th.

Kensington Cases.—(1) A shopman from 112, Ifield Road, C. C., on the 18th. (2) A cook from 27, Redcliffe Square, ½ mile R., on the 2nd. (3) A domestic from 4, Bolton Gardens, ½ mile R., on the 6th. At the above address only a fortnight. (4) A housekeeper from 18, Bolton Gardens, ½ mile R., on the 6th. By handling infected clothing in the house of a case occurred last year. (5) A domestic from 20, Rich Terrace, ½ mile R., on the 13th. (6) A piano tuner from 7, Clow Terrace, ½ mile R., on the 13th. From a house in Finborough Road. (7) One from 39, Eardley Crescent, ½ mile R., on the 21st. (8) One from 23, Philbeach Gardens, ½ mile R., on the 26th. (9) A carpenter from 43, Kempsford Gardens, ½ mile R., on the 27th, living at the above address since the 14th. (10 and 11) A private case in 13, Child's Place, ¾ mile R., causing a case at No. 1B, removed to Fulham Hospital on the 27th. (12) A woman from 12, Devonshire Terrace, 1 mile R., on the 4th, caused by the delirious patient from Victoria Grove last month, who drove to her house. (13) A butler from 77, Onslow Gardens, 1 mile R., on the 3rd, by visiting his brother in Bridge Street, Hammersmith. (14 to 26) Thirteen from O. S. A., viz., 2 from Enson Mews and 1 each from Victoria Grove (his father admitted last month in a delirious condition), Queensbury Place, Portobello Road, South End, Fenelon Road, Stanhope Mews, Yeoman's Row, Ledbury Road (a sister of the Assistant Medical Officer, Fulham Hospital; her little brother was treated at home for chicken-pox, who is said to have contracted the disease in Victoria Docks), Cornwall Road, St. James' Street, and Edward's Place.

Chelsea Cases.—(1) A carman from 11, Lot's Road, ½ mile R., on the 19th. (2 and 3) Two from 22, Slaidburn Street, ¾ mile R., on the 7th and 21st. An infected haunt. (4) A labourer from 17, Blantyre Street, ¾ mile R., on the 2nd. (5) One from 65, Seaton Street, ¾ mile R., to Highgate Hospital, on the 10th. (6) A domestic from 235, Fulham Road, 1 mile R., on the 3rd. (7 to 16) Ten from O. S. A., viz., 3 from Arthur Street, and 1 each from Park Terrace, Falcon Terrace, Bywater Street, Upper Manor Street, Wood Street, Wellington Street, and Guthrie Street.

July.—Fulham Hospital admitted 44 acute cases, viz., 13 from Fulham, 7 from Kensington, 11 from Chelsea, 5 from St. Pancras, 4 from St. George's, 2 from Strand, 1 from St. Giles's, and 1 from Brentford.

Highgate Hospital admitted 1 from Chelsea. The Health Officers reported 13 in Fulham, 11 in Chelsea, and in Kensington 10 during the four weeks ending July 23rd. The weekly number of cases under treatment was 78, 75, 51, 46, and 45.

Fulham Cases.—(1) A domestic from 5, Seagrove Road, C. C., on the 19th. From a concealed case in Rickett Street. (2) A labourer from 34, Vaunston Place, ½ mile R., on the 2nd. (3 and 4) A coachman and his wife, from 32, Bective Road, ½ mile R., on the 7th and 20th. The Fulham Hospital carpenter lived in the house. (5 and 6) Two children of two workmen in the Gas Factory, from 1, Britannia Road, ½ mile R., on the 9th and 12th. (7) A female from 49, Waterford Road, ½ mile R., on the 16th. (8 and 9) Two children of two workmen in the Gas Factory, from 6, Broxholm Road, ¾ mile R., on the 12th and 24th. (10) A potman from "Wilton Arms," ¾ mile R., on the 3rd. (11) A labourer from 13, Crown Street, ¾ mile R., on the 7th. (12) One from 3, Orchard Street, ¾ mile R., on the 15th. (13) One from Masborough Road, O. S. A.

Kensington Cases.—(1 and 2) One each from 7 and 54, Ifield Road, C. C., on the 8th and 26th. The former resident for two months in the house. (3) A child from 13, Child's Place, ¾ mile R., on the 3rd. From a child treated at home. (4) An undertaker from 68, Abingdon Villas, 1 mile R., on the 24th. He removed a body from Fulham Hospital a fortnight previous. (5) A chemist's assistant, from 280, Fulham Road, 1 mile R., on the 4th. (6 and 7) One each from Beaufort Gardens and Brompton Road, O.S.A.

Chelsea Cases.—(1) A paper-stainer from 49, Slaidburn Street, ¾ mile R., on the 19th. An infected haunt. (2) A carpenter from 67, Limerston Street, ¾ mile R., on the 22nd. (3) One from 42, Beaufort Street, 1 mile R., on the 18th. (4 to 12) Nine from O. S. A., 2 from Manor Street, and 1 each from Arthur Street, Zealand Street, Union Place, Robert Street, Markham Square, Smith's Terrace and Margaretta Terrace.

August.—Fulham Hospital admitted 33 acute cases, viz., 5 from Fulham, 7 from Kensington, 4 from Chelsea, 12 from St. George's, 2 from Marylebone, 1 from St. Giles's, 1 from St. Pancras, and 1 from Westminster. Highgate Hospital admitted 1 from Chelsea. The Health Officers reported 5 in Fulham, 5 in Chelsea, and in Kensington 8, during four weeks ending 20th August. The weekly number of cases under treatment at Fulham Hospital was 38, 34, 37 and 33.

Fulham Cases.—(1) One from 10, Broxholm Road, ¾ mile R., on the 11th. An infected house. (2) One from 20, Estcourt Road, ¾ mile R., on the 18th. (3) A milkman from 79, Rylston Road, ¾ mile R., on the 13th. (4) One from 11, Grove Terrace, ¾ mile R., on the 14th. (5) A labourer from 6, Peterborough Road, 1 mile R., on the 29th.

Kensington Cases.—(1) One from 54, Ifield Road, C. C., on the 12th. A case from the same house last month. (2) A servant from 84, Redcliffe Gardens, ½ mile R., on the 29th. She returned from her holiday on the 27th. (3 to 7) Five from O. S. A., viz., Holmes Place, Gloucester Road, Clarendon Road, Blithfield Street, and Shaftesbury Road.

Chelsea Cases.—(1) One from Camera Cottages, ¾ mile R., on the 11th. (2 to 5) Four from O. S. A., viz., Smith's Terrace, Strewon Square, Denyer Street, and Ovington Square.

September.—Fulham Hospital admitted 12 acute cases, viz., 2 from Fulham, 4 from Kensington, 2 from Chelsea, 2 from Strand, 1 from St. George's, and 1 from St. Pancras. The Health Officers reported 2 in Fulham, 10 in Kensington, and 3 in Chelsea. The weekly number of cases under treatment in Fulham Hospital was 29, 22, 19 and 19.

Fulham Cases.—A small-pox nurse and her child from Broxholm Road, ¾ mile R., on the 23rd.

Kensington Cases.—(1) A child from 87, Ifield Road, C. C., on the 1st. (2 to 4) Two from Swinbrook Road, and 1 from Chapel Place, O. S. A.

Chelsea Cases.—Two from Henry Place, O. S. A.

October.—Fulham Hospital admitted 7 acute cases, viz., 1 from Kensington (Abingdon Road, O. S. A.), 4 from Islington, 1 from St. George's, and 1 from Lambeth. The weekly number of cases under treatment in Fulham was 14, 15, 14, 8 and 8.

November.—Fulham Hospital admitted 11 acute cases, viz., 7 from Islington, 1 from Holborn, 1 from Westminster, 1 from Wandsworth, and 1 from St. Pancras. The weekly number of cases under treatment was 8, 9, 10 and 10.

December.—Fulham Hospital admitted 21 acute cases, viz., 2 from Fulham, 3 from Chelsea, 1 from Paddington, 6 from Islington, 2 from St. Pancras, 2 from Strand, 2 from Marylebone, and 3 from Wandsworth. The Health Officers reported 2 in Fulham, and 4 in Chelsea. The weekly number of cases under treatment was 8, 12, 18 and 19. Highgate Hospital admitted 1 from Kensington.

Fulham Cases.—(1) A labourer from 5, Moorpark Terrace, ½ mile R., on the 25th. (2) A railway guard from 4, Estcourt Road, ¾ mile R., on the 19th. The Kensington case was from Ladbrook Hotel, O. S. A.

Chelsea Cases.—(1 and 2) One each from 44 and 38 Slaidburn Street, ¾ mile R., on the 8th and 18th. (3) One from 496, King's Road, ¾ mile R., on the 21st.

Thus the history of the cases recorded in the year 1879 clearly demonstrates the spread of small-pox in a common-place manner, and proves the speculative nature of the theory of the aërial dissemination of small-pox infection.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CASE OF TUBERCULAR MASSES IN THE NEIGHBOURHOOD OF THE LEFT FISSURE OF ROLANDO, WITH PARTIAL PARALYSIS OF RIGHT ARM: AND SUPERVENING TUBERCULAR MENINGITIS.

By H. B. DONKIN, M.B. Oxon., F.R.C.P.,
Physician to the Hospital.

John Barratt, aged four years, was admitted on the 7th of November, 1883.

With the exception of some bronchitis, for which he had been treated as out-patient for some months, he was apparently healthy till the beginning of September, when his right arm was noticed to move convulsively on several occasions, and he gave up using it, and became left handed—having been right handed before. He was said, by his mother, to cry when his left arm was moved at the time of his admission. Just before admission he fell from his chair one day, suddenly, without apparent cause.

Family history good. No evidence of phthisical or syphilitic history. When examined on admission he was a well-nourished, intelligent child. No complete paralysis anywhere, though he used his left arm much more readily than the right. No abnormality observed

in face. Slight wheezing over bases of lungs. Heart sounds natural.

On the night of the 9th of November he woke several times as if in severe pain, and on being questioned referred it to his dorsal spine; no tenderness there. The child seemed distressed.

November 12th.—Is in constant pain, putting his hand to his head, which he holds stiffly and retracted; was ordered twenty grains of bromide of potassium last night, without the production of much sleep; bowels very confined. Temperature in morning 100·4°, evening 98°.

15th.—Lies with his right hand under his head—face flushed, eyes closed, pupils dilated, tongue coated. *Tache cérébrale* easily produced. Complains of pain at the back of neck and head.

Bowels confined, fæcal lumps felt in abdomen. Skin of abdomen rather inelastic. Temperature about 100° a.m., and 97° p.m. Respiration regular, 35. Pulse regular, 144.

19th.—Has been in the same drowsy state. Bowels opened with difficulty by purgatives. At 4 a.m. temperature rose from 99° to 101°; death after a short convulsion.

The *post-mortem* examination was made by my colleague, Dr. Radcliffe Crocker, Pathologist to the Hospital, seven hours after the child's death. On removing the skull cap, we found some small, yellow, irregular patches on the left side of the upper surface of the brain, situated over the ascending parietal and frontal convolutions, and extending about one and a quarter inch from the median fissure: on cutting into them, there was found to be a chain of yellow masses, varying in size from that of a haricot bean to a millet seed: the central yellow mass was moderately firm, not softened, and was surrounded by a narrow pearly capsule. These masses shelled out easily from the brain and were connected together by a fibrous cord, apparently an obliterated vessel. The largest was about one inch from the median fissure, and situated on the anterior surface of the ascending parietal lobe. The smaller ones extended to about a quarter of an inch from the middle line on both sides of the fissure of Rolando.

On opening the ventricles, about two and a half ounces of serum escaped. On removing the brain, thick lymph was seen to cover the under surface from the posterior edge of the pons, up to the frontal lobes. The anterior edge of the right temporo-sphenoidal lobe was softened for an area about the size of a sixpence. The left slightly softened, not so much as the right. The lymph could be peeled off, leaving the under surface slightly soft, but otherwise healthy.

In the chest recent adhesions were found in the left pleura. The lungs were studded with grey granulations.

The mesenteric glands were caseous, but there was no lymph on the peritonæum.

The surface and interior of the liver presented numerous masses of tubercle: the larger masses on the surface dipping into the substance. A patch about three inches long and two inches broad shows signs of thickening of the capsule.

The spleen was stuffed with tubercular nodules; a few granules were found on the surface of each kidney, none in their substance.

This case is recorded as a probable example of a monoplegia of arm in connection with disease of the convolutions in the neighbourhood of the fissure of Rolando. The motor symptoms began with spasm and ended in a partial paralysis, after the manner of those supposed to be due to cortical lesions. The occurrence of the tubercle in the cortex was doubtless anterior in time to the meningitis which proved fatal. Whether or not there had been any paralysis of the right leg during life, as might have been expected from the involvement of the upper part of the ascending parietal convolution, it is impossible to say, as the child rapidly became too ill for thorough examination and the history was necessarily imperfect. On admission, both legs could be moved and the child could support himself on them and walk, though he seemed listless and inclined to remain quiet.

Medical Times and Gazette.

SATURDAY, JUNE 7, 1884.

THE International Medical Congress, which will be held at Copenhagen, from the 10th to the 16th of August, already bids fair to prove a striking success, if we may judge from the numerous applications for accommodation which have reached the Secretary-General. The patronage of His Majesty the King of Denmark will give due prestige to the gathering, and evidences are not wanting that the reception of the members of the Congress by all classes in Copenhagen will be marked by more than common hospitality. The representatives of their respective nations, who will deliver the chief addresses at the general meetings, have already published the subjects which they propose to deal with. We have already announced that Sir William Gull, who is to represent the views of the Collective Investigation Committee in London, will discuss the question of mutual investigation of diseases. Professor Virchow will speak on Metaplasia; Professor L. Pasteur, on Pathogenic Micro-organisms and Vaccine Material; Professor Tommasi Crudeli will deal with Malaria, and Professor Verneuil on the Neoplastic Diathesis, while Professor Panum, the distinguished President of the Congress, will deliver an address on Food rations, especially with regard to the inmates of hospitals and prisons. The absence of any American representative from this list is striking, but perhaps only temporary. The business of the various sections, as already settled, is considerable, as may be seen from the summary given below, and there are yet very many additions to be made. In the Section of Dermatology it is proposed to exhibit the various instruments employed in the surgery of the skin, examples of which may be forwarded to Herr Hyrop, instrument maker, in Copenhagen. At the end of the meeting an expedition to Bergen is projected, to permit of a visit to the leper districts in that neighbourhood.

THE arrangement of the sections follows pretty closely that adopted at the London Congress, with the exception that laryngology is to be raised from the subordinate position it occupied three years ago, while the subjects of Materia Medica and Odontology, which then had sections to themselves, are at Copenhagen to have neither a local habitation nor a name. In this we think the committee have been guided to a most wise decision. It is both unscientific and inconvenient to separate the consideration of the drug-cure, or indeed cure in any form, from the consideration of the phenomena with which it is inextricably bound up,

while the experience of the London Congress showed that the two or three papers of real scientific merit which would be likely to be delivered in a Dentists' Section, can be given much more advantageously in other sections. In the Anatomical Section there are many interesting subjects down for discussion, but there is no great show of English names. The same remark applies to the Section of Physiology, Dr. Burdon Sanderson being the only prominent countryman of ours who is announced to contribute to it. In the Pathological Section tuberculosis and bacteriology are, of course, given the foremost place; and Dr. Koch's paper on the "Morphological and Pathological variability of Pathogenic Bacteria"—at present the most pregnant of all subjects of scientific interest—will, no doubt, excite much attention. But the consideration of the pathology of chronic nephritis, to be introduced by Prof. Cornil and Sir W. Gull, will run neck and neck with it. In the Section of Medicine another subject which is just now deeply engaging medical thought, though as yet hardly ripe for discussion, viz., the operative opening of pulmonary cavities, will be introduced by Dr. Bull, of Christiania. Dr. Austin Flint and Prof. Grainger Stewart have papers in this section, and Sir Joseph Fayrer, in conjunction with Dr. Joseph Ewart, will call attention to that frequent legacy of a tropical life—obstinate diarrhœa, on which he has recently been writing. The same authority has a paper on another pet subject of his—Sunstroke—in the Section of Military Medicine. The first subject down for discussion in the Surgical Section is, of course, the Antiseptic Treatment, the various methods of which will have their advantages extolled by Sir Joseph Lister, M. Paul Bert, Prof. Esmarch and others. M. Paul Bert will also treat of Anæsthetics in Surgery, while Prof. Esmarch will join with Mr. Bryant and Prof. Verneuil in the discussion of operative treatment in Rectal Cancer. The use of the trephine in localised diseases of the brain will be discussed by Ferrier, Lucas-Championnière, and Mollière of Lyons. In the Obstetrical Section there are several important subjects down for consideration, but the only prominent British authorities as yet named in the programme are Mr. Knowsley Thornton, Mr. Lawson Tait, and Professor Simpson. Why this unwonted reticence?

The other sections must at present be content with even briefer mention. The subjects to be discussed by the ophthalmologists include the examination of the vision of railway servants and seamen, to be introduced respectively by M. Redard and Dr. Brailey, and Blennorrhœa neonatorum, a subject which is now engaging the attention of our Ophthalmological Society. In the Section of Children's Diseases Dr. Barlow has a paper on acute rickets, while in that of syphilis and dermatology the treatment of syphilis by mercurial inunction (papers by Liebreich and Lewin, of Berlin, Prof. Neumann, and Martineau, of Paris) will share attention with leprosy and lupus. Educational overpressure is down for discussion both in the Section of Nervous Diseases and in that of State Medicine. To the former section papers will be contributed by Charcot, Pitres, and Eulenberg, on various questions connected with spinal degeneration. In the programme of the Section of Laryngology all the best known names in connection with that specialty are down for contributions, including those of Voltolini, Mackenzie, Lewin, Fauvel, Schnitzler, Lefferts, Solis Cohen, and Felix Semon. Of the company of English aurists, Dr. Woakes is the only one as yet announced as a contributor to the Section of Otology. The Section of State Medicine will apparently be run almost entirely by Scandinavians; but Prof. de Chaumont will introduce a discussion on the prevention of scurvy. In the last section, that of Military Medicine, there will be a big discussion on Antiseptics in the Field, introduced by Prof. Esmarch, who will be seconded—with weight—by Sir W. MacCormac, a name familiar to all Congress-trotters. That discussion will no doubt be a field-day for all the Army Surgeons present.

To reach Copenhagen comfortably in time for the opening ceremony, England must be left not later than the evening of Thursday, August 7th. The traveller will then reach the Danish capital late on Saturday evening, and after a quiet Sunday will be recovered from sea-sickness and ready for work on the following day. The first thing to do is to get to Hamburg, which can be reached either direct by sea, or *viâ* Flushing, Ostend or Calais. From Hamburg there are two routes, one taking thirteen hours, six of them at sea; and the other twenty-five hours, all but two on terra-firma. The Reception Committee "wish to direct the attention of members to the necessity of providing in time lodgments for their stay in Copenhagen. The Committee offer their assistance in this regard, if members will apply before the 20th of July, at the very last, to the Secretary-General," Professor C. Lande.

The usual monthly meeting of the Obstetrical Society was held on Wednesday evening last. Several specimens were shown, some interesting, some commonplace. The chief occupation of the evening was the consideration of papers, first by Dr. Playfair, detailing two cases believed to be instances of pulmonary thrombosis in the puerperal state, which ended in recovery. The paper was criticised by Dr. Galabin, who thought the process in such cases was rather embolism than thrombosis; and by Dr. Wiltshire, who suggested that the diagnosis should have been ulcerative endocarditis. Dr. Playfair explained that the distance between the right auricle and the pulmonary artery was so short, that the plugging of the pulmonary artery by a clot formed in the auricle deserved to be called thrombosis, in opposition to the travelling of solid masses from distant parts into the veins, which was what he understood by the term embolism. The second paper was a contribution to the mechanism of labour, being on fœtal revolutions, by Dr. Matthews Duncan, and like all the work of that distinguished man, was marked by analytical power, exactness of reasoning, and scientific accuracy of statement. It was criticised by Dr. Galabin, from a purely geometrical point of view, his objections being replied to, partly by Dr. Champneys, partly by Dr. Duncan himself, in a speech of much animation.

The council of the West London Medico-Chirurgical Society have instituted an annual lecture to be called "The Cavendish Lecture." The first will be delivered on July 11th, at 8 p.m., by Mr. T. Holmes, with the title "Medical Attendance on the Poor of London."

The number of the *Compte-Rendu de l'Académie des Sciences* for May 5th, consisting of more than 100 pages, is nearly filled with an account of the prizes awarded for 1883, by the Académie, and the specifications of the future prize questions. The reports of the Committees of the various sections are published in full, setting forth the grounds upon which the prizes have been awarded, and emanating as they do from men of the highest eminence in their respective branches of science, they often form interesting and instructive reading. The prizes are numerous and of considerable value; but we can only refer to those of them which have a bearing on medical science. (1) The Barbier Prize, for a useful discovery relating to the art of healing, has been awarded to Professor J. Chatin, for his researches in the laboratory of Havre, on the *Trichina Spiralis* and Trichinosis, by which he is stated to have added considerably to our knowledge of the subject. (2) The Desmazières Prize has been assigned to MM. Bonnier and Maugin, for their researches on the Respiration and Transpiration of Fungi, an "encouragement" being also given to Professor Klein, of Buda-Pesth, for his researches on the Crystalloids of the Marine Algæ. (3) The Bordin Prize is awarded to M. Constantin, of Bordeaux, for his laborious experiments, continued over three years, on the Effects of Surrounding Media on the Structure of Vegetable Organisms. (4) The Grand Prix in Anatomy and Zoology has been given to Dr. Viallanes, for his great work, accompanied by an atlas, on the Histology of Insects, and on the Histological Phenomena which accompany their Post-embryonic Development. (5) For the Montyon Prize in Medicine and Surgery, the Academy adjudges three prizes of 2,500 francs each, viz., one to Dr. Constantin Paul, for his work on the Diagnosis and Treatment of Diseases of the Heart; another to Dr. Henri Roger, for his Clinical Researches on the Diseases of Infancy; and a third to Dr. Vallin, for his valuable Treatise on Disinfectants and Disinfection. "Honourable mentions," with 1,500 francs each, are also awarded to MM. Napias and Martin, for their "Progress of Hygiene in France from 1818 to 1882;" to MM. Dubar and Rémy, for their work on Absorption by the Peritoneum; and to Dr. Denucé, of Bordeaux, for his Clinical Treatise on Uterine Inversion. Moreover, the following "honourable citations" are also decreed, viz.:—to Dr. Berne, for his Lectures on General Surgical Pathology; to M. Certes, for his Micrographic Analysis of Waters; to Dr. Huchard, for his additions to Axenfeld's Treatise on the Neuroses; to Dr. Polaillon, for his Statistics of the Maternity at the Cochin Hospital; and to Dr. Rossignol, for his Treatise on Military Hygiene. (6) The Bréant Prize of 5,000 francs is decreed to Dr. Fauvel, for the various researches he has been engaged in on the Ætiology and Prophylaxis of Cholera, since the publication of his work on that subject in 1870, when he also obtained this prize. Moreover, the Academy proposes to divide the sum of 10,000 francs among the four pupils who are sent to Egypt, under the name of the "Pasteur Mission," as a recognition of their scientific devotion and of the important results which their courageous investigations led to. (7) The Godard Prize is given to Dr. Guelliot, for his Anatomy and Physiology of the Vesicul Seminales. A "honourable mention" is also given to Dr. Desnos, for his Lithotrity under Prolonged Sittings. (8) The Chaussier Prize is awarded to Dr. Legrand de Saulle, for his Medico-Legal Studies on Epilepsy and Hysteria; an honourable mention being also given to Dr. Layet, for his Hygiene and Disease of the Peasantry; and another to Dr. Luton, for his work on General and Special Therapeutics. (9) The Lallemand Prize has been divided between our respected contributor, Professor Ball, for his Lectures on Mental Diseases; and Dr. Voisin, for his Clinical Lectures on Mental and Nervous Diseases. (10) The Montyon Prize in Physiology is awarded to Professor Paul Regnard, for his Experimental Researches on the Pathological Variations in Respiratory Combustions. (11) The Lacaze Prize has been adjudged to Professor Balbiani, of the College of France, for his important series of researches in the most delicate and difficult question of Embryogeny and General Physiology, which have occupied him for more than twenty years, and are as remarkable for their precision in detail as for the philosophical bearing of their direction and results. The prize subjects will be adverted to in a future number.

At the meeting of the 16th of May, Professor Billroth showed to the Imperial Royal Society of Physicians of Vienna, a patient aged 29, who had an enormous osteosarcoma on the left arm. It extended from the sternum to the middle of the scapula; the outline of the scapula, however, could be distinctly felt through the tumour. At one point of the arm softening had taken place, and since that time the patient had complained of great pain. The operation for the removal of this enormous tumour, he pointed out, would be very hazardous, the patient being extremely weak. It would be necessary in such a case to ligature the subclavian, and even if the patient should survive the operation, such success would be only transitory, for metastases in the lungs often occurred in such tumours. Professor Dittel remarked that he had tried to operate, on the same day, on a tumour which bore some resemblance to that shown by Professor Billroth, but he was compelled to desist, as the extirpation of the tumour proved impossible. The scapula and the arm would have had to be removed, and another difficulty arose from the fact that there was no space between the tumour and the ribs, and that the vessels probably passed through the substance of the growth.

At the meeting of the same Society on May 23rd, Dr. Riehl, Assistant to Professor Kaposi in the clinic of dermatology, showed a man who suffered from "Erythrasma." This dermatomycosis was described about twenty-five years ago by Burghart and Bärensprung, but subsequently fell into oblivion, until Besnier, of Paris, recalled attention to it. It was

left to Balzar, however, to give a full and exact description of it. In many respects erythrasma is similar to pityriasis versicolor, the skin being stained with yellow or brown patches, easily denuded of their epidermis. They vary in form and their size is from that of a lentil to that of the palm of the hand. In contrast with pityriasis versicolor, however, the inflammation is here superficial, presenting itself as an erythema, and the affection is of longer duration. On examining the scales which have been scraped off from the patches, a fungus which bears great resemblance to "Microsporon furfurans" is found, namely: "Microsporon minutissimum." Erythrasma is usually met with on the scrotum, the inner parts of the thighs and in the axilla. In the man who was shown to the Society, the erythrasma stains were to be seen also in the front of the thighs and on the abdomen. Erythrasma is to be distinguished from Eczema marginatum by the fact that the process in the latter disease goes far deeper, and from Herpes tonsurans by its course. Herpes tonsurans has an acute course, and is moreover characterised by exudation into the epidermis. The treatment consists in killing the fungi and lifting off the epidermis; a complete cure is thus obtained in a comparatively short time.

The enterprising Director of the Berlin Polyclinic is desirous of introducing an innovation in Medical education. As may be seen from his announcement in our advertisement columns, he is prepared to appoint English graduates as assistant teachers in their various specialties. We are a little doubtful if this will work on any very extensive scale, but if it succeeds, a much needed opportunity will be presented to would-be instructors of gaining experience both in instruction and practice.

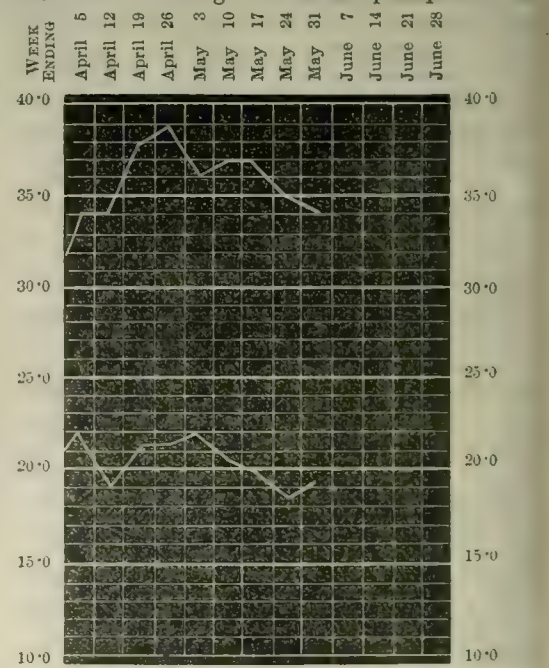
The Universities of Prague and Gratz have each recently established special chairs for hygiene, both of which are filled by pupils of Pettenkofer. Dr. Soyka, of Munich, has been nominated Professor at Prague, and Privat-docent Gruber at Gratz.

For the pursuit of bacterial investigation, which of late has acquired such an increased importance, the Berlin *Reichsgesundheitsamt* has hitherto been the only place in Germany that has offered any facilities for research; and here only a limited number of persons were enabled to familiarise themselves with Koch's methods. Professor Bollinger has the merit, then, of first establishing in a university an institute at which bacterial courses of instruction can be undertaken. A short time since he was the means of founding in the Munich Pathological Institute a new laboratory for bacterial investigations, where already a bacterial course of lectures has been commenced for young docenten of the medical faculty, under the direction of Dr. Frobelius, an assistant of the institute.

It may be of interest to those who are coveting the honour of examining the aspirants to a medical degree, to learn that Dr. James Anderson, Examiner in Physiology and Natural History in the University of Aberdeen, and Examiner also at the College of Physicians, London, has had to resign the Aberdeen appointment before the natural end, in September, of his term of office. This has happened owing to an overlapping of the periods of the next July examinations held by the two bodies; and the Aberdeen authorities will consequently have to make a new appointment forthwith.

The Annual Report of the Metropolitan Board of Works, for 1883, is now before us, and contains a vast amount of information of all sorts. During the past year about 14,000*l.* have been spent in cleansing the 250 miles of main and intercepting sewers, by means of which the sewage of London attempts to get carried away, and more than ten times that amount has been spent on new sewers. Under the Labourers and Artizans' Dwellings Acts, the Board have submitted to Parliament no less than eighteen schemes, involving the displacement of 23,414 persons, but as yet dwellings have only been erected to accommodate about half that number. Since 1882 the Board have been unusually vigorous in regard to the structural defects of the theatres, and at the end of that year there were but six with which they had fault to find. The owners of the others have, after some show of resistance, in almost every instance complied with all the requirements of the Board.

The London death-rate rose again last week to 19·2, the deaths being 22 below the ten years' average. The deaths from small-pox showed a marked increase while those from measles and whooping-cough were less than they had been for some weeks. In spite of this, the total number of deaths from zymotic diseases was 27 above the average. The small-pox epidemic is



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first nine weeks of the present quarter.

still spreading; the hospitals admitted 370 new cases during the week, and on Saturday had 1,057 cases under treatment. The deaths from diseases of the respiratory organs experienced a slight fall and were 15 below the average.

The annual dinner of the Cambridge Medical Graduates' Club will take place on Tuesday, July 1st, at the Marlborough Rooms, 307, Regent Street, Professor Humphry in the chair. Graduates who have received an invitation to join the Club and have not yet done so, should communicate with either of the honorary secretaries, Dr. Fowler, 35, Clarges Street, Mayfair, W.; or Dr. Steavenson, 15, Henrietta Street, Cavendish Square, W.

Mr. Jonathan Hutchinson will deliver a series of lectures at the London Hospital, on Mondays and Wednesdays, at 4 p.m., commencing on June 25th. The subjects he has chosen for this course are, calculi and their lessons, the urinary diathesis, the early recognition of cancer, gout as a surgical disease, certain clinical groups of tumours and congenital syphilis in relation to chronic skin diseases.

We regret to announce the sudden death of Mr. Stannus Hughes, of Dublin, which occurred somewhat unexpectedly early on the morning of Whitsun-Day, June 1. The day previous to his death, Mr. Hughes attended the annual meeting of the Fellows of the Royal College of Surgeons in Ireland, but his many friends had been for some time anxious about his health, as his appearance was far from reassuring. However, he continued to discharge his many professional duties with uninterrupted zeal, and he may be said to have died literally in harness. So far back as 1838 Mr. Hughes became a Licentiate of the Royal College of Surgeons in Ireland, proceeding to the Fellowship in 1844. In 1864 he graduated as Doctor of Medicine in the Queen's University. He filled in time many posts of dignity and responsibility in his profession. He was for a period an Examiner in Surgery in his own University. He was up to his death a Surgeon to Jervis Street Hospital, and also to the Convalescent Home, Stillorgan, Co. Dublin, as well as Consulting Surgeon to the Coombe Lying-in Hospital. He shared with Professor William Stokes the Chair of Surgery in the School of the Royal College of Surgeons, and for many years he courteously and efficiently discharged the duties of Surgeon in Ordinary to the Lord Lieutenant's Household, Dublin Castle. As Secretary to Council of the Royal College of Surgeons, James Stannus Hughes won the respect and confidence of his professional brethren, by whom his memory will long be cherished.

The new method of administering ether by the rectum has been warmly welcomed in the United States, and several trials have been successfully made. (*New York Medical Record*, May 3rd, and *Boston Medical Journal*, May 8th). In the former of these journals, however, a timely caution is given, for not only is it stated that a fatal case has already occurred, but it is also pointed out that the degree of etherisation is not always well under control, nor can its administration be promptly arrested. Moreover, many patients suffer from intestinal irritation as a consequence of the procedure. The rapidity with which the ether is absorbed is remarkable, some patients tasting it within two minutes after the introduction of the rectal tube. The general anæsthetic effect is not so rapidly produced, but the administration is much less annoying to patients, while they recover more speedily than after ordinary etherisation, and manifest less subsequent excitement. "The new method is neither applicable nor necessary in prolonged operations. Even in those upon the face and throat, anæsthesia by the rectal tube need only be alternated with that by the cone in a large range of cases. Indeed, in all severe and prolonged operations upon the face, a hypodermic injection of 8 or 10 minims of Magendie's solution of morphine, given a few minutes before cone-etherisation is commenced, is sufficient, in a large majority of cases, not only to tide over the intervals when the mouth must be free, but to enable the operator to dispense with the ether altogether for varying periods. In most nervous persons, it may be found advantageous to commence etherisation by the rectum until unconsciousness is produced, when the anæsthetic effect can be maintained by the cone with the usual surety and safety. But, as we have already remarked, the range of applicability of the rectal method must be determined by time and experience."

The spirit of mockery and raillery is still rampant in certain American journals, making harvest out of the march of progress in modern surgery. The *Medical Record* of New York wastes two columns in laborious attempts to prove that since the "quite modern surgeon is a bold, bold man thoroughly imbued with the spirit of iconoclastic radicalism," every organ must in turn acknowledge his potent sway and submit to resection or excision, until apparently little or nothing remains. "The problem of the hour is to determine exactly with how few organs, or with what minimum remnant of these, the vital functions may continue to be performed long enough for the publication of the individual case, as illustrating a new triumph of operative skill." And the article concludes thus: "Shall there be no further dawn of new light for the operator? Shall his keen blade rust until a tumour actually forms? By no means. Let him rather be the destiny that shapes our ends to suit modern requirements." It is extremely difficult to know in what terms to speak of trifling such as this in the editorial columns of a medical journal. Few surgeons are likely to be encouraged to deal with difficult cases by scornful criticism of this nature. An occasional joke at our expense in a professedly comic paper can be tolerated or laughed at; but the case is different when the strivings of the profession are so hopelessly held up to ridicule by those whose duty it should be to chronicle innovations and to criticise them fairly and soberly.

What is to be done with our small-pox patients? This is an ever recurring question, thanks in great

measure to the superior wisdom and more intelligent enlightenment of a small knot of individuals who know a great deal more than the rest of us. The dwellers in London are never tired of pointing out the great advantages that small-pox patients would derive from treatment in the country, whilst those who reside in the suburbs are at least equally eloquent on the dangers and difficulties of transporting them so far, and can produce half a score of reasons why the patients should be treated in the metropolis. Between the two the difficulty of providing sufficient accomodation is a very real one, and every year seems to find an increase in the obstacles to be overcome instead of seeing the difficulties gradually smoothed away. The present epidemic affords to the anti-vaccinators an opportunity which, we hope, they will avail themselves of. It is simply this. Many, probably almost all of them, have never seen the inside of a small-pox hospital; now is their chance, there must be plenty of room for extra nurses both male and female. Let some of them volunteer then without delay for this work; they will thus be able to test practically whether vaccination is of any use, and if they will, after a time, press all their fellow believers, or rather unbelievers, into the service, they will have the satisfaction of learning afterwards that they adopted the most efficacious means of stamping out the disease.

The indignant complaint addressed last week to a daily journal, by Mr. Gillham, the Secretary of the Princess Louise Home of the National Society for the Protection of Young Girls, with reference to the difficulties he encountered in procuring the removal from the home of some of the inmates when stricken with small-pox, accentuates the importance of two very different subjects which are coming on for discussion in two very different assemblies. The one subject is that of Metropolitan Government, which will shortly engage the attention of the House of Commons; the other has reference to the means of preventing the communication of small-pox, which is to be discussed, we believe, both at the Annual Meeting of the British Medical Association, and at the Copenhagen Congress. Mr. Gillham appears to have spared no energy in his attempts to get rid of his infectious inmates, but he was driven from pillar to post in a manner that would be ludicrous to read of, were it not so shameful, and a whole week was lost before he could gain his end. Of course by that time "the girls were sickening right and left; and from that day to this they have been drifting into the hospital by twos and threes." If the facts attested by Mr. Gillham are not explained, no better means of strengthening Sir W. Harcourt's hands in his efforts to pass his Metropolitan Bill could be devised than to print Mr. Gillham's letter by thousands and scatter it broadcast throughout London. That would shake the hitherto unshaken complacency of the vestries. This official recklessness with respect to small-pox is no new thing, as anyone who reads the elaborate articles by Mr. Makuna, that we are now publishing, will be able to convince himself. It seems absurd to sit down and debate about the aërial communication of small-pox, when so many opportunities of communication by close contact are, by the indolence and red-tapeism of the authorities, still left in existence.

Dr. Jaggard in concluding some papers in the *Philadelphia Medical News*, April 26, on the Pathology, Ætiology, and Prophylaxis of Puerperal Fever from the Vienna Stand-point, furnishes the following statistics in proof of the great efficacy which has attended the prophylactic measures employed since 1862. From 1847 to 1862, there were treated in the Vienna Obstetric Clinic 64,500 cases of labour, with a mortality of 3·45 per cent.; and, from 1862 to 1878, in Carl Braun's wards there have been 61,949 cases, with a mortality of 1·65 per cent. Since 1878, the results have been still more favourable, so that, at the present time, the mortality rate from puerperal fever in Carl Braun's wards clinic is one half per cent. During the winter quarter of 1883, among some 900 cases of labour, no death resulted from puerperal fever. These statistics, Dr. Jaggard states, have been most conscientiously and accurately compiled, and there can be no reasonable doubt as to their absolutely truthful character.

THE REVOLT OF THE PHYSICIANS.

The large affirmative vote given last week by the Fellows of the Royal College of Physicians, on Dr. Andrew's bold and popular resolution to refer to the Council their list of nominees to the Fellowship, has a significance as great as its intrinsic wholesomeness and importance. Of the advantage of this vote there may be said to be practically but one opinion. It emphasised in an unmistakable manner the determination of the Fellows that the traditional qualifications for entry into their much-coveted inner circle should be jealously guarded, and that while mere professional success must look elsewhere for its crown, the Fellowship must not be indefinitely withheld from those younger workers in what is called the higher rank of the profession, who, being personally worthy, have been taught to regard this honour as a compensation in some degree for the deferred pecuniary reward attaching to their chosen career. But over and above this, the vote has shown to the Fellows the potential strength of the popular element in the College, and should encourage them to endeavour to bring about certain reforms which would realise and consolidate the powers they already have, while practically adding others which they may now rightly claim as having shown themselves the truest guardians of the honour and dignity of their College.

In the first place it would seem to be highly desirable that active interest should take the place of the undoubted apathy that now exists among the Fellows with regard to the election of Members of the Council. That body is now, to all intents and purposes, a co-opting one, for it is rarely, if ever, that an outsider ventures to propose an amendment to the House-list of fresh Councillors which is annually laid before the Fellows. Were the College generally to bring a serious mind to this business, which is usually transacted in a few formal minutes, it would be scarcely possible that such an occurrence could take place as the recent practical rejection of the Council's tale of nominees

to the Fellowship; for a Council which was *in esse* as well as *in posse* the Committee of the general body would have too good a touch of the prevailing feeling as to the proper recipients of the honour to err so widely as on more than one occasion the present constitution has permitted. Not only in the matter of election to the Fellowship, but in nearly all the business of the College a truly representative Council is an obvious desideratum; and the more perfect the realisation of this object becomes, the less danger there will be of oligarchical or even despotic rule.

But this increased activity on the part of the College in using the powers it already has, is not all that we think desirable to ensure its welfare and to keep intact the present high standard of the rank of Fellow. A Council, however constructed, must be far from infallibility or omniscience, and on such an important matter as the nomination of Fellows, should not be left so unrestricted and unaided as it virtually is at present. It is unlikely that the true feeling of the College as to the fit and proper candidates for the Fellowship will ever be allowed free expression until the nomination of these candidates be placed in the hands of the Fellows at large, to be fully and faithfully dealt with by the Council. We would suggest that the College of Physicians should follow the example of the Royal Society, and commission its Council to prepare each year a list of Fellows-designate from among those whose names have been proposed and supported by the Fellows with a full statement of their claims and qualifications; and that before the Council issue their selected list, the names and qualifications of all candidates should be placed in a printed form in the hands of the Fellows. The Council's list thus chosen would be practically final, subject only to the possible rejection of individual candidates by the general body. The Fellows' power at present in the matter of election to their own body is almost *nil*. They can add no names to the Council's list of nominees, and the majority which is requisite to black-ball a candidate reduces their power of veto to a minimum of effect, unless the case be a crying one. But the remedies we propose would both ensure the existence of a Council in which the fullest confidence could be placed, and afford every facility for all just claims to be considered; so that even if the method of black-balling, at present nominally in vogue though but rarely brought into actual play, were to remain unaltered, the 'corporate conscience of the College, which we rejoice to believe is very tender, would be almost secure from injury, and its dignity would be beyond the risk of injury.

PNEUMOTOMY.

We reported last week some interesting cases in which pus-secreting cavities in the lungs had been opened and drained externally with considerable success. The record of such a bold and novel proceeding is well worthy a little special attention, for it deals with an organ which, until very lately, has been considered sacred, and beyond the reach of the surgeon's knife. It is quite true, as Mr. Gould has pointed out, that Richter, an eminent German surgeon of the last century, prophesied that the day would come when such abscesses would be so treated; but much work had to be done first, and it is not difficult to see why it has been reserved for surgeons of to-day to successfully plan and carry out Richter's idea. The discussion at the Royal Medical and Chirurgical Society followed the reading of a case in which this operation had been successfully accomplished by Mr. Gould, at the suggestion of Dr. Cayley. The patient was a girl about twelve years of age, suffering from a local gangrene of the lung of acute onset: other remedies had failed and the girl was rapidly losing ground, when it was decided to puncture the lung and endeavour to drain the cavity of its gangrenous contents. So successfully was this accomplished, that a sequestrum of gangrenous lung was evacuated, and the patient made an excellent recovery. Dr. Biss subsequently related a case in which a basic abscess, with fœtid contents, had been diagnosed and a similar plan of treatment carried out by Mr. Marshall. The case was of a more chronic nature than the preceding and not so easy of diagnosis. As might have been anticipated, it was less successful, but nevertheless the operation afforded the patient considerable relief during the short remainder of his life, and death was in no sense due to the operative measures adopted. In the discussion which followed the reading of these papers, several other cases were mentioned. Dr. Fowler gave the particulars of a very unusual case, that of a man who had accidentally swallowed a molar tooth. Disease of the lung, with formation of a cavity in the base, supervened, and threatened to prove fatal. Here was a double indication, not only to drain the abscess, but if possible to get out the tooth, and though the latter object was not accomplished, in respect to the former a fair amount of success was obtained. Mr. Godlee related cases in point, as did Dr. Broadbent and Mr. Walsham. In all alike, the advantages of freely draining away the pus were manifest, even when, from the nature of the case, a permanent cure was not attainable.

The operation consists in opening the abscess cavity, and putting in a drainage tube. It is variously done, either with or without previously incising the chest wall. Thus Mr. Gould passed in a large trocar and cannula, and after withdrawing the trocar, introduced a drainage tube and then withdrew the cannula, leaving the tube in the cavity. Mr. Marshall cut down on the pleura, and after exposing it, pushed in his trocar to the depth of four inches. Mr. Godlee, in his cases, excised portions of ribs, and used a scalpel, after having explored with a hollow needle in the first instance. The amount of hæmorrhage appeared to vary, but in none of the cases was it severe, and in none was there any difficulty in arresting it. As regards the pleural cavity, while most of the speakers agreed that it would be better if it had been obliterated by adhesion, some seemed to think that the importance of its obliteration had been exaggerated. At this stage we must abstain from expressing any very decided views on the above questions. On *à priori* grounds, we should incline to use a trocar and cannula in preference to a knife, as being less likely to lead to severe hæmorrhage; and on the question whether obliteration of the pleura is

essential or not, we should decidedly lean to the view that a healthy pleural cavity—could it be diagnosed—would be a strong contra-indication, for it can hardly be doubted that the accidental introduction even of small portions of gangrenous fluid into a healthy pleural cavity, would be followed by severe inflammation, and possibly by gangrenous empyema. Indeed such a case has quite recently come within our knowledge. On the other hand, every pathologist knows that the pleura is often unaffected, even when the adjoining lung is markedly diseased.

The number of cases in which the operation has been performed is certainly very small, but it is sufficiently large to show its practicability, its freedom from undue risks, and its appropriateness in some cases. Can we deduce any conclusions from the evidence before us, either as to the class of cases, or the mode of operating? Dr. Cayley's case was one of acute gangrene, following, or rather associated with, general pyæmia, and the result was eminently satisfactory. Dr. Biss's case, like the other cases mentioned in the discussion, was of a much more chronic nature, and two physicians differently interpreted the physical signs with which it was accompanied. The inferences, it seems to us, are sufficiently obvious. An acute process—that is to say, probably a very localised one—is more likely to get permanent benefit than a chronic disease which possibly may already have spread beyond the region chiefly affected, and therefore ceased to be a local disease, such as might reasonably be expected to yield to local measures. Moreover, the uncertainty in the diagnosis is a factor of no mean importance, and Mr. Godlee's suggestion that physicians should especially devote themselves to the "fine art" of diagnosing cavities is not without force, Dr. Powell's disclaimer notwithstanding. So soon as this heroic treatment of cavities in the lungs comes to be recognised as within the domain of legitimate surgery, physicians will doubtless lay down rules for their detection, though surgeons, we hope, will not fail to educate themselves to a proper level, so as to speak with as much authority on abscess in this organ as when it occurs elsewhere, thus rendering themselves, if not independent of the physician, at all events capable of forming an unbiassed opinion on the desirability or otherwise of surgical interference. The mode of operating is one which cannot be dogmatically laid down—experience alone will decide whether a trocar or a knife shall be used. Analogies, however, come to the rescue, and point to the use of the trocar. The lung differs widely from the liver for instance, in that it is collapsible; hence in the middle of an operation, as the vesicles empty themselves, and as the abscess cavity contracts, the lung will tend more and more to recede from the surgeon's grasp, and hæmorrhage may thus become very difficult to arrest. Perhaps means will be found for laying bare large areas by removing portions of chest wall, but until this is accomplished it appears to us that cutting operations deep into the substance of the lobes had better be avoided. Mr. Gould's successful case, moreover, shows what may be accomplished by simpler and safer methods. In the case of a foreign body, this argument would apply with less force; but even then, the preliminary use of a long fine needle for exploring purposes—as is done in the case of the kidney—seems to us desirable. Meanwhile, we can only congratulate surgeons on this further advance in their art, and trust that pneumotomy will shortly be established on a broad and secure basis.

A HOTBED OF QUACKERY.

To judge from the local distribution of Medical Defence Associations, and from the quarters which advertising quacks and their tract distributors single out for their happy hunting-grounds, one would think that quackery was a plant that could only flourish in a poor soil. Such a conclusion, however, would be erroneous, as the more astute and better educated quacks could tell you, if they would. They could point out country houses, and London mansions, where their cleverly contrived doctrines find a readier credence, and their pilules and decoctions a readier sale than in villa or cottage. Of course they have to put a very different bait on their hook from that which succeeds in Bermondsey and Limehouse. Indeed, the quack who directs his attention to the West-end would probably disdain an East-end practice; possibly he would not succeed in it if he tried. He knows his *mêtier*. He has to deal with more or less intelligent people, educated up to a certain point, and possessed with an overweening idea of their own cleverness and culture, superstitious, but in most cases devout and entirely well-meaning, kind and charitable. It is obvious that with such a class mere assertion will not go down as it does amongst the lower orders. The quack who appeals to Belgravia and Mayfair must have a plausible theory to propound, and he must not be more ignorant of physiology than his patients. He must contrive to touch their religious feelings, here and there deftly introducing an argument from design. This, however, must be cleverly done, without too apparent cant or vulgarity, for his prey is suspicious and easily shocked. If, further, he can aver, truthfully or otherwise, that he is a man of birth and culture, his success is assured. It adds of course immensely to his chances if he honestly believes in himself—and we grant that many quacks do believe in themselves to a certain extent—for the delicate *nuances* of the part are much better rendered by one who identifies himself with it than by one who is only a mercenary actor.

One of the chief irregular practitioners of the day, whose name is familiar from advertisements at railway stations, and whose writings are read with intelligent appreciation in West-end drawing-rooms—a certain Count Cesare Mattei, of Bologna—corresponds faithfully with the above description. A man of birth and property, we are informed, he had already entered middle life when it occurred to him that the medical science of the day was a fraud. Doctors worked industriously enough at disease, and talked glibly enough about it, but they did not cure it, and often did not even profess to cure it. Now, argued the Count, Providence would certainly not have visited us with so many diseases without at the same time providing us with their appropriate remedies. Hence,

he was led to ransack the woods and pastures of Italy for simples, and at last he found two different substances, with which he affirms that he can cure all diseases, even the most pernicious cancer yielding and often "shelling out" on the application of his remedies. He has cured thousands, he tells us, in different cities in Italy, who had been given up by orthodox medicine, and for many years he has maintained out of his own funds a hospital at Bologna, for the treatment of the poor. But a system, to take with the educated classes, must make some show of science, and Count Mattei has not been blind to this means of extending his sphere of usefulness. He is distinctly a humoral pathologist. There are two main fluids in the body, blood and lymph, and all diseases arise from the perversion of one or both; there are also two main remedies, and if your disease will not yield to "anti-limfatico," it will assuredly succumb to "anti-angiotico." The Count has associates in various countries, who, for a consideration, will advise as to which remedy should be used. His chief representative in this country is, we believe, a French gentleman, who divides his time between vending wines and advising patients. Here then we have all the conditions necessary for a successful system. An aged and benevolent gentleman with a title, who spends his life and substance in succouring the poor, and who, we do not doubt, is honestly convinced of the value of his discovery, and the efficiency of his efforts; a theory sufficiently plausible to take in those whose smattering of knowledge, combined with hereditary assurance, gives them an overweening confidence in their own powers of reasoning; and lastly, as the salt cunningly sprinkled on this salad of science and sentiment, comes in the teleological argument. With all this to recommend him, it is not to be wondered at if the name of the author of the new "electro-homœopathy" is mentioned with sympathetic respect in many an aristocratic home.

There is another name which has recently acquired almost equal vogue amongst the superstitious. It is that of an ex-lieutenant of the Swedish army, who, impressed by the results of the Zander system, came to London a few years back, with the view of carrying it out on English patients in a modified form. He now occupies a large house in one of the best West-end squares, and the number of patients who daily submit to the manipulations of his myrmidons is described as very considerable. His system is different from Mattei's, but, from what one hears, is scarcely less successful. At any rate, if the one cannot cure you, the other infallibly will. "The Count" attacks you from within, but "the Swede's" assault is from without. He will knead your head for epilepsy, pummel you for locomotor ataxy, tweak you for paralysis, and in fact manipulate you for any and every disease. He, too, has a plausible theory, and is in a position to appeal with success to the wealthy and so-called educated classes. He does not appear to be so disinterested as the Count, whose charge for his panaceas is within the reach of the poorest pocket; but then the Swede has an expensive establishment of shampooers and massagers to keep up, and you cannot expect to get so much expenditure of skilled manual labour without paying for a corresponding amount of beef and beer.

We have, perhaps, gone out of our way to give a few details of these princes of the irregular profession, but we hope it may be some consolation to the poor "regulars" who groan under the competition of the herbalist and prescribing chemist, to hear that their consultant brethren in the West-end have not the whole field to themselves. We have not, however, as yet heard of any proposal to prosecute, or, indeed, of any serious complaint of the rivalry of, these successful Mahdi's. And, we presume, for this reason. The honest, regular practitioner invariably finds that his patients come back to him after a certain period of trial culminating in disappointment. In fact, no quackery that the world has yet seen can ever long compete with conscientious and honest practice. It is, we believe, the assumption by certain regular practitioners of greater knowledge and skill than they possess—quackery in fact—that drives people to irregular practitioners. If doctors would never try to make people think they know more than they do, but would honestly confess their ignorance when they are puzzled, their patients would have less reason to confound them with irregular practitioners, and less temptation to fly from the one to the other. We do not for a moment either believe or contend that the doctors of the poor are less honest than the doctors of the rich, but they are certainly less highly skilled in their profession; and the man who is not fully assured that he possesses all the available knowledge and skill in his profession, is much more exposed to the temptation of concealing his ignorance than the man who has the right to regard himself as an authority. We feel sure that the true method of dealing with quacks is to be found, not in prosecutions by Medical Defence Associations—which, to our mind, are always more or less a confession of incompetence—but in the higher training of the profession generally in science and morality.

REVIEWS AND NOTICES OF BOOKS.

THE REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.[1]

A COMPARISON between the official Report of the Medical Officer to the Local Government Board and that of the Medical Officer of the German Board of Health involuntarily suggests itself when one peruses the recently-issued "Supplement containing the Report of the Medical Officer for 1882." Putting on one side the attractions of the German quarto sheet, good binding, and lavish illustrations, it must be confessed that the scientific matter in the English volume, taken as a whole, is inferior in quantity and in value to that contained in the pages edited by Dr. Struck. This is the more to be regretted because it is not attributable to any lack of ability, knowledge, or power of investigation among English workers, but to the small staff

[1] The Twelfth Annual Report of the Local Government Board, 1882-1883. Supplement containing the Report of the Medical Officer for 1882. London. Hansard. 1884.

which successive Governments with a false economy employ in original investigation.

The present volume contains the usual information as to vaccination, and something more. The Vaccination Acts throughout England and Wales have been carried out so efficiently as only to leave unvaccinated 47 out of every thousand children born ; the total result is of course the sum of very unequal factors; in London, for example, no less than 70 per thousand escape ; and this is in part an explanation of the persistence of variola in the metropolis.

The important discovery has been made that it is possible for syphilis to impart its malignant property to vaccine lymph. We would that the fact had been established accidentally and not as the result of a formal auto-experiment. Dr. Cory deliberately caused himself to be inoculated with vaccine lymph, derived at four different dates, between 1877 and 1881, from emaciated blotched infants, severely and unmistakably syphilitic ; the last experiment, made on July 6th, 1881, was successful, and twenty-one days after, local papules formed ; subsequently the axillary glands became affected, and constitutional symptoms fully developed. Dr. Buchanan remarks on the relation of the case to English vaccination. "In the outcome Dr. Cory's result has a certain pathological interest. The lymph of a vaccine vesicle upon an actively syphilitic may, it would appear (though under limited conditions that remain obscure), contain the virus of syphilis, even when there is no recognised admixture with the lymph of matters foreign to it. But that is all. For it was needful for the purpose of Dr. Cory's experiments that he should throw aside two rules which habitually guide him as they guide other people in the practice of vaccination. He had to take, and he did take intentionally, lymph from children with strongly marked manifestations of syphilis, one of which manifestations was a pronounced skin disease. This abandonment of vaccination rules would appear furthermore to have been of the essence of his success in transmitting syphilis. Dr. Cory's result, therefore, does not give any new rule for the guidance of the practitioner. For the practising vaccinator the obligation will remain neither weakened nor strengthened to 'Take lymph only from subjects who are in good health,' and 'Always carefully examine the subject as to any existing skin disease, and especially as to any sign of hereditary syphilis' (Board's instructions to public vaccinators). And the result of Dr. Cory's experiment, in which this rule of practice was necessarily disregarded, does not at all affect the conclusion derived from long-continued experience of properly conducted vaccinations, that the observance of the above rule is in practice a sufficient safeguard against the transmission of syphilis." In agreeing generally with this exposition, nevertheless we think it does not accentuate sufficiently the momentous import of the unfortunate experiment, which is, that the old doctrine faithfully held by the majority that vaccine lymph free from blood will under no circumstances be the vehicle of infection, is erroneous. It follows that vaccinators have a greater responsibility than ever in vaccinating from human vaccinifers ; we therefore turn to the report of the establishment and operations of the Animal Vaccine Establishment, an institution likely, under the circumstances, to satisfy an increasing public demand for animal rather than human vaccine. Mr. Shirley Murphy tells us that permanent premises were opened in Lamb's Conduit Street in the early part of April, 1882, and that every Tuesday and Thursday, from 10.30 to 12 noon, vaccination of adults and children direct from the calf is performed. Accompanying the report are plans of the premises, and an elaborate table giving various details relative to the calves, and as to the origin and descent of the lymph. The extremely satisfactory conclusion is drawn, "that, judged by the experience gained during the first year's operation at the Animal Vaccine Establishment, animal lymph 'takes' with as much certainty as humanised, and produces similar local and constitutional effects."

The circumstances leading to the reports of Mr. Power on diphtheria in Pirbright, and enteric fever at Norwood, those of Dr. Barry on the Bangor outbreak, and of Dr. Blaxall, on enteric fever at Sherborne, abound with interest, and will be studied with advantage. A report by Mr. Power on the outbreak of scarlet fever in the parishes of St. Giles' and St. Pancras contains the germ of a fresh point of departure, which may change entirely our views as to the ætiology of the disease. Dr. Klein made experiments first as to whether the lochial discharges of a reputedly healthy cow could when inoculated into, or administered along with food to, certain other animals produce in them any obvious illness, but these experiments all, without exception, gave negative results. He next inoculated a cow with desquamated cuticle from a scarlet fever patient ; this also gave a negative result, but inoculation with muco-purulent matter from a scarlatina throat, developed in ten or eleven days a local abscess, without general fever, and a drop of pus from the abscess caused, when inoculated into a dog, general fever and local mischief quite distinct from that which could be produced by ordinary pus.

The most striking experiment was, however, that upon a cow already in bad health, which had recently calved. Muco-purulent matter from a scarlatina patient was injected into the subcutaneous tissue of this animal and also poured down its throat ; only a local abscess formed, which soon healed ; nevertheless the lochial discharges of this animal mixed with milk and subcutaneously injected into two dogs gave a distinct febrile disorder ; and in one of the dogs, the throat became inflamed. The import of the experiment may be summed up as follows : The secretions of a cow recently calved, after the animal has been inoculated with scarlet fever, are in no way different from what they were before ; when the secretions are inoculated into other animals they produce a disease at all events analogous if not identical with scarlet fever, the cow during all this period not being visibly affected in health. Whether the cow is ever without inoculation in what may be called a "crypto-scarlatinal" state, and whether the milk of such a cow when drunk by the human race is capable of producing any disease, is at present unknown.

The report of Dr. F. H. Blaxall on the sanitary aspects of emigration and immigration abounds with so many details relative to the accommodation in various vessels, and is so clearly and simply written that it might advantageously be published in a separate form so as to be more accessible to the public generally.

Our knowledge of the practical aspects of the anthrax bacillus and the clinical symptoms by which its incidence may be recognised in man, is extended by the enquiry of Mr. John Spear on the occurrence of anthrax amongst persons engaged in the London hide and skin trades. It appears that, from the hide warehouses and tanyards of the Bermondsey district, occasional cases of malignant pustule have been admitted, and the cases now recorded appear to be specially connected with particular consignments of ox hides. In connection with anthrax, Dr. Klein has continued his investigations on its growth, culture, and decay. He has also investigated Pasteur's assertions relative to attenuation of the virus, but has been unable to confirm them. Even tubes of protective anthrax vaccine obtained from M. Boutroux (M. Pasteur's agent) were either harmless, producing no result, or so virulent as not to vaccinate but to kill. We fear that M. Pasteur's vivid imagination carries him sometimes

beyond the strict dogma of fact. He has recently in the same way brought out a protective vaccine for rabies, which candidly we must look upon with the gravest suspicion, especially as, considering the uncertain and prolonged period of incubation, one man's lifetime is insufficient to place the protection or non-protection of animals or men from inoculated rabies on an experimental basis. Before leaving the subject of anthrax we note that Dr. Klein found on using the blood of a mouse dead of anthrax, that a slight illness could be produced in sheep, after which virulent anthrax could be inoculated in the same sheep without effect. The interesting volume concludes with one of those profound researches on the chemistry of the brain, which only Dr. Thudichum can make; but this paper must be reserved for a separate article.

Elements of Surgical Pathology; by AUGUSTUS J. PEPPER, M.S., M.B. Lond., F.R.C.S. Eng. London: Cassell & Co., 1883.—Surgical pathology includes the whole of general and by far the greater part of special pathology. Consequently we find in the book under notice —Inflammation and its Results; Fever and the Infective Diseases of Wounds; Tubercle and Syphilis; the Degenerations; Union of Wounds; Fractures; Atrophy, Hypertrophy, and Tumours. Each system also is taken, and a few words said about the most important diseases and results of injury affecting it. The book is a small one, but it really contains a large amount of valuable information conveyed in a pleasant style. Still it is by no means uniformly reliable. The writer is evidently most at home when he can approach a subject from the clinical side, or demonstrate its naked-eye pathology; and as he does this to a large extent, we believe that the book will prove useful to the student. But on many points in general pathology we cannot help thinking that the author has not kept himself abreast of the times. It is generally held that an accurate knowledge of the process and ætiology of inflammation is the foundation of surgery; and yet this subject is treated in a very few pages, and, as we believe, most unsatisfactorily. Indeed, we had difficulty, after reading the first chapter, in seeing the good which really lies in ensuing ones. The following extracts will enable readers to judge whether censure is justifiable. Having stated in the first paragraph that living tissues possess the property of "irritability," and that this is most marked in those tissues in which new cells are being constantly produced, the author proceeds to demonstrate the necessarily destructive nature of inflammation (which the student now hears of for the first time) thus: "This increase of activity, whether showing itself by enlargement, and multiplication by division, or endogenous formation of cells, is always a sign of lowered vitality; for the more rapid the rate of nutrition and reproduction, the less the stability; *and so* inflammation must of itself always be a destructive process." *Q. E. D.*

The symptoms of inflammation are next given (*functio læsa* being entirely omitted) and explained before we have heard a word about what inflammation is. We now learn, however, that some of the redness is due in certain diseases to hæmoglobin passing out of the vessels *in a state of solution*, causing, for example, the brick-bat colour of lymph in syphilitic iritis. Increased production of heat in foci of inflammation is spoken of as indisputable and undisputed. Turning now to the process of inflammation, we find that there is no new anatomical factor in it, for inflammation is an exaggeration of the normal physiological forces, such as variations in calibre of healthy vessels, exudation of fluids, and migration of white corpuscles, which are described as wandering "habitually to and fro from their vascular abodes." *Contraction* is always the first sign of irritation, is rapidly followed by dilatation, and then stasis gradually sets in. Beyond this nothing is said of changes in velocity of stream, and what "stasis" may mean the student is left to imagine. The quantity of blood delivered by the veins from an inflamed part in different stages of the process, and the variations in blood pressure in inflamed parts are entirely passed over. The explanation given of the mode of production of stasis is most unsatisfactory, the evidence of change in the vessel wall, which Lister brought forward in 1859 as the essential lesion of inflammation, and which Cohnheim has since amplified and christened the "molecular change," not being honoured with a word.

As to exudation of corpuscles, leucocytes are described as clinging to vessels generally, and as passing out through capillaries only. Arnold's stoma-hypothesis, is left on an equal with the theory of molecular change. The corpuscles accumulate in clumps round the connective tissue corpuscles, because these *attract* them. Cartilage-cells are said to multiply in inflammation, but the behaviour of ordinary connective tissue corpuscles is simply left in doubt. The belief which is now gaining ground that the share taken by connective tissue corpuscles varies inversely as the intensity of the process is not hinted at; nor have we come across any mention of those regeneration processes in connective tissue corpuscles, which Sanftleben described, and which have probably caused much of the confusion existing as to the share taken by the tissues in inflammation. The assertion that the fluid exudation contains a quantity of mucin escaped from the blood, or derived from mucoid degeneration of cell protoplasm, strikes us as very doubtful, and we must certainly protest against the discharges from inflamed mucous membranes being used as the most prominent example. Finally, the forms of cells found in the exudation of *acute* inflammation are mentioned, giant-cells being, for all that is stated to the contrary, as common in them as are leucocytes. No explanation is attempted of the mode of origin of the larger forms, but it is thought possible that when formed, they produce small cells by gemmation and fission. Of the modes of termination of inflammation, the description of *organisation* might, we think, be considerably improved. To our great surprise, nothing whatever is said as to the ætiology of inflammation. If pathology teaches at all, surely it is here; and we sincerely hope that no work which omits the subject will be regarded as entirely "suited to the requirements of students preparing for the final examinations."

Farther on, the ætiology of infective inflammation necessarily arises, and here again the information seems behind the time. On p. 43, we find that "infective matter means merely the outcome of the chemical changes that take place in all cases of inflammation;" and again, p. 156, "without doubt tubercle arises from infection, that is to say, it is the product of irritation of the tissues,"—statements ill-calculated to give students a clear idea of infective disease. The bacillus tuberculosis is mentioned, but we can scarcely think that the author had read even an abstract of Koch's paper. In erysipelas, again, could Mr. Pepper find nothing more recent than Lukomsky's paper on cocci in the lymphatics? Surely the work of Orth, and Koch, and Tillmanus, was worth mentioning; and we should have thought that Fehleisen's "Ætiologie des Erysipels," published early in 1883, might have been utilized.

Space will not permit us to go on to other subjects which we might criticise. It will be obvious that a book so faulty in such fundamental matters as the above, can hardly lay a scientific basis for the study of surgery. The results of the faults crop up again and again. Much of the book, however, as we said at the commencement, is written from a clinical standpoint, and is really good. The faults which we have alluded to are grave, and remediable only by re-writing some parts, and carefully revising the whole work. We hope that in the next edition we may be able to congratulate the author upon having carried out the changes suggested.

A System of Human Anatomy; by HARRISON ALLEN. Section IV., Arteries, Veins, and Lymphatics. Section V., Nervous System. London: Henry Kimpton.—The present volumes are a part of a series, the first three volumes of which we had occasion to notice last autumn. The good opinion we then formed of the work is borne out by the parts now in our hands. The author adheres to a systematic plan in his descriptions in a manner to be highly commended. After some general remarks on the blood vessels, the heart is described in detail, a brief account of

its development and of the most common malformations being added. Each artery is next dealt with seriatim, the general direction of each of the branches it gives off, and its final distribution, where it does not divide into named branches, being given. The relations of the artery to the various important structures in its course are then given, as also the chief variations which have been met with, and in many cases the steps necessary in the operation for tying the artery in the several parts of its course are described. In speaking of the veins, the author does not offer any opinion as to function of the valves. This is to be regretted, as it is of great importance, in teaching, to instruct the learner in the use of every organ he meets with, and as the valves constitute one of the chief characteristics of the veins, their purpose ought to have found some mention. The fifth section is devoted to the nervous system. In speaking of the minute anatomy of the cortex of the brain, Dr. Allen contents himself with describing five layers, without any attempt to differentiate between the different appearances seen in different parts of the cortex. In a work claiming to be as exhaustive as this, the omission appears to us to be an important one. In reference to the cranial nerves, no mention is made of the relation between the third and sixth nerves as regards the associated movements of the external and internal recti. Although, perhaps, we can as yet hardly consider it proved beyond all question that a filament passes to the nucleus of the sixth nerve from the opposite third nerve nucleus, yet enough has been written to show that such is probably the fact, and to warrant the mention of the point in a work on anatomy. In preparing this work, the author has evidently not spared his labour, as the copious references to the medical periodical literature of this country alone amply testifies. The plates, though apt to be a little diagrammatic, are good, and the printing and paper are excellent.

Notes on Dental Practice; by HENRY C. QUINBY. London: J. and A. Churchill.—The present volume is just one of those books that puzzle the reader to know why they are written. It does not contain any scientific investigations connected with dental surgery, for the author himself explains in the first few lines of his preface, "it has not been my purpose to attempt to wade in the deep waters of physiological and pathological research." It cannot be regarded as a text-book, or one that could be recommended to students previous to going up for their examinations, for the author puts forward so many theories and points of practice, which are not altogether recognised by the profession at large, that it would decidedly embarrass the mind of any student. We do not in any way wish to deprecate these ideas, as far as the author is concerned, for he is quite at liberty to expound any theories he likes, but for these reasons the volume is disqualified as a students' manual. Again, it cannot be regarded as a work for the general public, for although there are several pages, or even a chapter or two, that the ordinary reader might understand, we frequently meet with rapid transitions into technical language, which would render it unintelligible to the non-professional reader. Neither is it of any actual value to the experienced operator, whose bookshelves are already overcrowded with this class of literature. An elaborate review of the work would be out of place in these pages, but we may mention one or two ideas that do not coincide with generally received opinions. For instance, in the first chapter, the author says, in writing about the premature extraction of the temporary teeth, "In the course of an extensive practice for more than a quarter of a century, I have never met with a case where I considered it necessary." There is no need to doubt the veracity of this statement, but it looks as if the author had never met with a case of extensive alveolar abscess, or a severe case of ulcerative stomatitis, or even a case of actual violence, in any of which cases the temporary teeth may be rendered so loose, and cause such an amount of irritation, that it is absolutely necessary to remove them, whether the permanent successors are due or not. What we complain of is the assertion made to the reader, that although plenty of temporary teeth are annually removed prematurely by other practitioners, during a period of a quarter of a century the author has not considered it necessary to remove one. In his remarks on anæsthetics, the author seems to prefer chloroform or ether, or a combination of them, with a certain proportion of alcohol, to nitrous oxide gas; his principal reasons for his preference being, firstly, that, "the apparatus required for the gas, even in its compressed form, is too bulky for the surgeon to carry about with him;" and, secondly, "that the gas differs from other anæsthetics, in that the return to consciousness is not gradual, but sudden." We are afraid we cannot even agree with the author here, as firstly, several of our well-known anæsthetists have been for years in the habit of carrying their apparatus to administer the gas to all parts without any trouble; and as regards the second quotation, that is not our experience; that persons do return to consciousness quickly we will allow, but not that it occurs suddenly. Space will not permit us to make any further remarks, although there are still several points that we cannot in any way agree with. But enough has been said to show that the book cannot be regarded as a valuable addition to professional literature.

The Descriptive and Surgical Anatomy of the Inguinal and Femoral Regions, considered in relation to Hernia; by EDWARD L'E. LEDWICH, Lecturer on Anatomy in the Ledwich School of Medicine, Dublin. London: Baillière, Tindall, and Co.; Dublin: Fannin and Co., 1884; pp. 99.—This book cannot fail to be of use to senior students, who, having already acquired some knowledge of the anatomy of hernia, by dissection and by perusal of the larger text-books, are desirous of consolidating the knowledge they have so obtained. The author has performed his task so aptly, that any one who will carefully read his treatise, will be rewarded by finding that he has obtained a clear conception of the anatomy of the regions the author has set himself to describe, and, consequently, a thorough understanding of the *rationale* of the various methods of treatment which are adopted for the relief, or cure of the herniæ, that occur within them. We cannot agree with the statement (pp. 18, 65) that it is the custom to describe Poupart's ligament as "a separate and distinct ligament"; and we think the author would have acted more wisely, had he adopted the course usually followed by teachers of anatomy in this country, and described Poupart's ligament as the thickened lower margin of the aponeurosis of the external oblique muscle. The multiplication of the borders and surfaces of this ligament (p. 19) tends to complicate the anatomy of a part which already presents sufficient difficulties to the general student. With the exception of this portion, which we trust may be altered in a future edition, the work is clear, concise, and correct. The plates, which have been most carefully executed, add an additional value to the book.

ABSTRACTS AND EXTRACTS.

RESEARCHES ON THE MICRO-ORGANISMS OF DIPHTHERIA.[1]

By Dr. FRIEDRICH LOEFFLER.

ALTHOUGH nearly sixty years have passed away since Bretonneau published his classical treatise on diphtheria, and notwithstanding the efforts of the long series of workers who have followed in his footsteps, the true ætiology of diphtheria has never yet been established upon a really satisfactory footing. The varied circumstances under which the disease has been observed have led to a variety of views upon the subject. Perhaps in one point only is there any complete agreement, and that is, its infectiveness. The analogy of other infective diseases, in which a

[1] "Reports of the Imperial Board of Health in Germany." Edited by Dr. STRUCK. Vol ii, 1884.

definite micro-organism has been discovered, naturally points to the probability of a similar discovery in diphtheria, and the researches of many observers have been concentrated directly upon this one point in the ætiology.

Dr. Loeffler prefaces the account of his own experiments by a concise summary of the work done by his predecessors in the same field. One of the most important observations which has of late years aided the elucidation of the problem, was published by Dr. Heubner during 1883. Following the line of experiment opened up by Oertel, Weigert and others, Heubner succeeded in producing false membranes upon mucous surfaces by means of mechanically modifying the circulation in the blood-vessels supplying the part. He then injected portions of true diphtheritic membrane into the general circulation, and found that some form of poison became concentrated in these artificially produced membranes, rendering them capable of re-infecting healthy animals with a genuine diphtheria. The general outcome of his work appeared to be, that the local affection was most probably the starting-point of the disease and the seat of the development of the poison. Arguing by analogy, therefore, it must be assumed (1) that certain typical organisms must be present in the affected spots; (2) that these organisms must be capable of isolation and re-cultivation; and (3) that the disease must be reproducible from these cultivations. Heubner, however, failed to prove the constant presence of any definite micro-organism, other than the very numerous micrococci which, according to his theory, ought to be found within the blood-vessels leading to the affected spots. Klebs, on the contrary, found a definite bacillus somewhat smaller than that of tubercle in the upper layers of the diphtheritic membrane in all the cases which he examined.

Dr. Loeffler's own experience is given in detail, particulars of each individual experiment being recorded. The method of staining which he employed consisted in placing the sections for a few minutes in a solution, made by adding 30 ccm of a concentrated alcoholic solution of methyl blue to 100 ccm of Koch's solution of potash (1 to 10,000 parts of water). The sections were then washed with a weak solution of acetic acid and mounted in balsam. All forms of bacteria were found to take this staining-fluid, but the tubercle bacillus showed the least susceptibility, a fact of some importance in distinguishing it from the diphtheria bacillus described by Klebs. The exact conditions found in 27 cases are carefully recorded. Some sections of tonsils showed, after staining, a broad colourless zone on their buccal surface, edged with an irregular blue border, blue spots and streaks extending into it in places. Inside this zone was a layer of numerous violet-stained granule cells, and within that again, appeared a series of irregular processes extending into the muscular tissue, and in places surrounded by a narrow colourless band. Seen by a higher power, the coloured outer layer was found to consist of countless bacteria, micrococci and bacilli; the blue spots being formed by collections of bacteria, with dense masses of micrococci forming long chains. The blue irregular processes were formed of wavy bacilli, the most internal and colourless layer consisted of necrosed tissue, probably due to the action of the long chains of micrococci.

Summing up the results of his observations, the author states his conviction that the whole process is one of necrosis, due to the ingrowth of these micrococci, and that the presence of so many other forms of micro-organisms is simply due to the fact that the decomposing tissue forms an excellent soil for the development of any kind of organism that may find its way into the air passages.

Two distinct varieties, however, are undoubtedly to be associated with the diphtheritic process, viz.—the chains of micrococci and the single bacillus first observed by Klebs. The former of these were always found in the cases where a distinct loss of substance had taken place, not only on the surface, but also pushing their way into the tissues beneath, and so to the lymph glands and the internal organs. It is to be observed, however, that certain micro-organisms which cannot be distinguished morphologically from these have been described by Koch as occurring in the organs in variola, and in typhoid and puerperal fevers. Klebs' bacillus was found exclusively in those cases in which a thick false membrane was present over greatly engorged blood-vessels. The bacilli lay directly under the outer layer of this membrane, irregularly scattered among numberless other bacterial forms. This outer layer was especially rich in cellular elements, and was probably the first result of the irritative effects of the bacilli upon the blood-vessels, the false membrane thus formed being slowly lifted up by the subsequent serous effusion from the vessels. In one case only were these bacilli found in the lungs. They were never found in the internal organs in cases examined shortly after death. In some very typical cases of diphtheria, however, they were not found at all, and hence from the anatomical standpoint alone they cannot be regarded as absolutely specific.

Having thus established the fact that these two varieties are commonly associated with the local changes in diphtheria, Dr. Loeffler proceeded to verify and expand his observations by means of cultivation and infection of animals. The methods employed and the results obtained are described in detail. With the cultivated specimens of the chain-forming micrococcus, the results of infection were for the most part negative, and the author arrived at the conclusion that their presence must be regarded as only an occasional accompaniment of the disease, and not as an active element in its production. With cultivations of the bacillus, however, the results were more decided. By successive cultivations he effectually isolated them and obtained them, free from other bacteria, in a fluid, consisting of a mixture of three-parts of calf or sheeps' blood-serum, and one part of neutralised veal-broth, to which was added 1 per cent. of peptone, 1 per cent. of grape sugar, and one half per cent. of common salt. The bacilli were motionless, staining rapidly and deeply in methyl blue. Some were straight and others slightly bent, their average length being about equal to that of the tubercle bacillus, though somewhat wider transversely. A dark, deeply-stained spot at one end of the rod was observed by Klebs, and thought to represent a spore. Dr. Loeffler, however, who also observed it, failed to find any sufficient evidence of this. The results obtained by infection experiments were remarkable. Although mice and rats appeared to be unaffected by the bacilli, he found that guinea-pigs were very powerfully attacked; distinct false membranes were, in many cases, formed about the seat of puncture, profound disturbance of the internal organs being induced by the poison. Inflammatory œdema of the subcutaneous tissue, local hæmorrhage and general serous effusion were found in the majority of cases. No bacilli, however, could be detected in any other parts than the immediate seat of inoculation. These experiments place the fact beyond doubt that the fatal affection of the internal organs is due, not to the local action of the bacilli circulating within them, but to the influence of some poison, probably set up by the bacilli at the primary point of infection.

Upon rabbits the effects of inoculation, although present, were less marked. In pigeons, a very distinct membrane was produced about the seat of puncture, whether in the breast or in the trachea itself. The bacilli introduced through the mouth into the unwounded larynx produced no effect whatever. Similar results were obtained with like experiments on fowls. Some curious phenomena were observed in the cases of two pigeons and one fowl, in which an apparent diphtheritic paralysis had been induced. In two cases there were found abundant deposits of uric acid (which, by the action of methyl blue, were stained a bright red), and these had evidently set up an arthritis of several joints, whilst in the third, a myxomatous tumour was found pressing on the spinal cord. Dr. Loeffler's paper is concluded by some observations upon diphtheria in pigeons and in calves. The main practical point which comes to the front as the result of his investigations is this, that the diphtheritic process is essentially local in its early stages, and that the poison which exercises its disastrous influence upon the body generally, is developed at the original seat of attack. Hence the paramount necessity of isolation and of disinfection of all discharges from the air passages. The treatment which this view of the disease indicates must, therefore, be mainly directed towards the removal or neutralisation of the infective materials, or that portion of mucous membrane which may be in the first instance attacked.

MEDICINE.

Some recent Researches on Micro-Organisms.—The occurrence of micro-organisms in the living tissues of animal bodies has lately been made the subject of investigation by Dr. Hauser, of Erlangen. He records (*Centralblatt für die Med. Wissenschaften*, No. 21) the results hitherto obtained, although his observations are not yet fully concluded. By separating small slices of various organs from freshly-killed animals, and keeping them free from any possible external contamination, he found that in 72 per cent. of his cases, even after three weeks' "cultivation" in a warm and moist air, no kind of micro-organism whatever had become developed. In a few instances bacteria appeared, but these were attributed to accidental defects in the method of isolation. The influence of various gases upon the development and growth of micro-organisms was also investigated. Their influence was alike negative where no bacteria were present, but in other cases it appeared that the growth was distinctly hindered by carbonic acid gas, and as distinctly favoured by oxygen.

The question of bacterial influence in the origin of pyæmia is once more opened up by a paper by Dr. A. Beltzow (*Centralblatt für die Med. Wissenschaften*, No. 22). Of previous investigators, Koch believed that he had successfully proved that certain micrococci were active in the causation of the disease; whilst Billroth, Frisch, and others maintained that their occurrence in the tissues was only a part of the *post-mortem* phenomena. The author's own investigations resulted in the discovery of a considerable number of bacilli, which appeared in two forms, in addition to numerous colonies of micrococci. Of these two bacillus-forms, the one bore a close resemblance to that which has been found in cases of malignant œdema; and the second appeared to rank, in point of size, between the bacillus of tubercle and that of the septicæmia as observed in mice. Another form, resembling leptothrix bacillus, was found in one instance growing between the hepatic cells, and setting up thrombosis in the capillary vessels.

Professor Baumgarten, of Königsberg, extols the value of the aqueous chamber of the rabbit's eye as a suitable cultivation ground for the tubercle bacillus. (*Centralblatt für die Med. Wissenschaften*, No. 22). Portions of tubercle placed within it do not set up any coarse inflammatory lesion, but a distinct enlargement of the material injected is seen to take place during the next few days. This increase of size is shown by the microscope to be due to multiplication of the bacilli and not to any growth of the tubercular tissue itself. Successive reinoculations of the material so obtained gradually result in the production of bacilli alone, without a trace of other micro-organisms and without any sign of the tissue from which they were obtained. The anterior chamber of the eye, says Professor Baumgarten, fulfils all the requirements of an incubator, supplying the needful temperature, maintaining complete antisepsis and checking the development of any decomposition bacteria.

Cases of Laryngeal Stenosis.—In the "Hospitals Tidende" of March 26th, two interesting cases of stenosis of the larynx are reported by Dr. E. Schmiegelow, of Copenhagen. In one, the patient a woman, aged 26, had suffered from chronic laryngitis ever since an attack of scarlet fever, which had occurred in her fourth year. She had been afflicted with scrofula in childhood, but there was no history of syphilis, nor could the slightest objective evidence of it be detected. Seven years after she came under observation she had been seized with erysipelas of the face; this was followed by dysphagia, and at a later period by loss of voice and difficulty of breathing of such intensity that tracheotomy had to be performed. Since that time the patient had been fairly comfortable, but had never been able to dispense with the tube. When seen by Dr. Schmiegelow (more than six years after the operation), the uvula, pillars of the fauces and posterior wall of the pharynx were found to be thickened and indurated, the mucous membrane being pale and somewhat fibrous in appearance. Laryngoscopic examination revealed a like condition of the epiglottis, aryepiglottic folds and ventricular bands, the vocal cords being entirely hidden by the latter. The mucous lining of the trachea was seen through the wound to present a similar fibrous hypertrophy. No trace of ulceration, present or past, could be discovered. The cause of the stenosis in this instance was no doubt simple inflammatory thickening of the tissues at the upper part of the windpipe. The starting-point of the disease had been scarlatina occurring in a subject of well-marked scrofulous constitution, and the mischief had been consummated afterwards by erysipelas attacking a part which was the seat of long standing chronic inflammation. Dr. Schmiegelow refers to a case reported by (Türck "Klinik. d. Krankh des Kehlk." 1880, Fall 23), as being the only analogous instance he has been able to find in medical literature. The other case occurred in a boy, aged 11, who was suffering from typhoid fever. At the beginning of the fourth week of the illness urgent dyspnœa came on and tracheotomy had to be done. It was afterwards found necessary to leave the tube permanently *in situ*. On laryngoscopic examination about two months after the operation the upper part of the larynx and the vocal cords were seen to be in a perfectly normal condition. Below the glottis, however, two dense-looking swellings, covered with reddish mucous membrane, could be seen, one projecting from each side of the larynx and meeting the other in the middle line, thus completely blocking up the air passage. Dr. Schmiegelow observes that as no *post-mortem* examination of such a case has been recorded, it is impossible to say whether the swelling is due to simple hypertrophy of the submucous tissue, or to perichondritis of the cricoid cartilage. In any case the treatment must be directed to curing the stricture by gradual dilatation with bougies, or with Schrötter's specially devised instruments. We may remark that Dr. Mackenzie states ("Diseases of the Throat and Nose." Vol. I., p. 294.) that he has examined three such cases after death, and in each of them there was disease of the cricoid cartilage. Looking also to the frequency with which perichondritis in this situation occurs in the course of typhoid fever, we have little doubt that Dr. Schmiegelow's case was an example of that complication.

Displacement of the Transverse Colon.—Dr. C. H. Thomas reports the histories and *post-mortem* appearances of three cases of downward displacement of the transverse colon, occurring in sane patients. 1. A male, aged 80, the chief symptoms noted during life were emaciation, anorexia, &c., and a profuse but fitful diarrhœa, alternating with the appearance of a firm tumour 5″ × 2″, lying transversely midway between umbilicus and pubes. The transverse colon was found to be greatly elongated, and depressed in a U-shaped loop. 2. A lady, aged 54, suffered from dragging pain referred to the hepatic region, aggravated by walking, and relieved by prolonged rest in the recumbent posture; obstinate constipation, with indications of obstruction, the capacity of the rectum for enemata being limited to two ounces; and the occasional appearance of two elongated, solid tumours of doughy consistence, one on either side of the abdomen, extending vertically from the border of the ribs nearly to the pelvic rim; they were supposed to be the ascending and descending colon respectively, in a state of fæcal impaction. The transverse colon was found narrowed, elongated, and completely prolapsed, the middle of the U being carried beneath the pubes and lying on the bladder deep in the pelvic cavity. 3. A male, aged 30, the subject of advanced renal disease, suffered from great abdominal pain to the right of, and slightly above the umbilicus: no local enlargement or induration was made out, but this region was intensely tympanitic to light percussion, and misplacement of the large bowel was diagnosed. The necropsy revealed a sharp flexure of the middle of the transverse colon, the apex of the V lying to the right and at the level of the umbilicus. Dr. E. T. Williams directs attention to similar cases mentioned in Bright on "Abdominal Tumours," and in Esquirol's "Maladies Mentales."—*Boston Medical and Surgical Journal*, January 3rd, 1884.

Localised Sweating in Locomotor-Ataxy.—Many phenomena pointing to an affection of the sympathetic

nervous system in locomotor-ataxy have been recorded. Amongst them are: the altered conditions of the pupils, the gastric, intestinal and vesical crises, the permanent acceleration of the pulse which has sometimes been observed, the alterations in the secretions of the alimentary canal, the cutaneous ecchymoses and eruptions, and, according to some, the affections of the nails and joints. To these we must now add alterations in the functions of the sweat glands. In the *Revue de Médicine* for May, M.M. Raymond and Artaud describe the case of a man, aged 46, who was the subject of ataxy, and who presented a well-marked sweating confined to the right side of his face after each meal. This came on in from ten minutes to a quarter of an hour after the meal, and was not associated with any change in the pupil; the sweating occupied the corresponding side of the head and neck, extending to the shoulder. There was no affection of smell or taste, but the patient said that there was increased flow of saliva on the affected side during the sweating. The injection of pilocarpine did not seem to cause more sweating on one side of the face than the other. The authors mention that they have already recorded two cases in which the sympathetic ganglia were found to be affected *post-mortem*, and they allude to Pierret's view that the central origin of the sympathetic lies in the posterior vesicular columns and tractus intermedio-lateralis of Clarke, a region which is very commonly found to be sclerosed in cases of locomotor-ataxy.

The Treatment of the Insane in American Institutions.—The *Boston Medical and Surgical Journal*, December 20th, 1883, contains a summary of a remarkable report on the treatment of the insane in poor-houses and county asylums, presented at the annual meeting of the State Charities Aid Association. It exhibits "a very unsatisfactory condition of affairs from a moral as well as a hygienic point of view." . . . "Insane patients, who might perhaps be cured or improved by proper care in State hospitals, were found cooped up in close cells like ox-stalls." Men and women, sick and well, sane and insane, were herded together like cattle; as a general rule, the insane in country poor-houses were kept in attics, basements, and out-buildings, which were filthy and squalid. In one instance, the insane patients were found shoeless and bare-headed, compelled to sit on the floor, and all—both men and women—under charge of a male pauper. Elsewhere the bath-room "was found in the coal-cellar, and six patients were required to bathe in the same water, which was then saved to wash clothes in the laundry." After such revelations there is a certain *naïveté* in the statement that "these various local institutions seem calculated rather for the encouragement of insanity and misery, than for their suppression."

Exophthalmic Goitre.—In the *Ophthalmic Review* for June, Dr. James Russell contributes a case of Graves' disease presenting some features of interest. The patient was a girl aged 16 years, who presented decided exophthalmos on the left side only. The lids of the right eye were retracted, producing the well-known staring appearance. In the neck there was a very small goitre alike on the two sides. The mother said that at first the two eyes were equally prominent, and that after a time the right eye went down; though it did not regain its natural appearance, the goitre had varied but very little since it was first noticed. The patient was said to have suffered from palpitation, but made no complaint of this whilst under observation. The pulse was repeatedly examined, and was seldom above 100, it was generally under 90, and several times was less than 80. In a note appended after the paper was written, Dr. Russell states that on subsequent examinations of the pulse the average frequency of the beats had been much greater, being above 110 on a majority of occasions of examination. With this there had recurred a certain amount of exophthalmos of the right eye, though not to the same degree as in the other eye. This case seems to confirm a suggestion made by Dr. Fitzgerald in the same journal, that when the cardiac symptoms are absent the other symptoms should preponderate on the left side.

Sudden Death from Pressure on an Inflamed Vagus Nerve.—The *New York Medical Journal*, March 15th, reports the case of a female child, aged 3 years, who was brought to the dispensary on account of a slight cough. Physical examination gave only negative results; the child appeared large and well-nourished, but a peculiar sound was noted to attend the breathing — most marked on inspiration. The patient seemed to get better of the slight cough: at no time was there pyrexia, dysphagia, or dyspnœa. At the end of a month, during a sudden paroxysm of coughing, she was seized with intense dyspnœa, became rapidly cyanosed, and died. The autopsy revealed miliary tubercles scattered throughout the lungs and trachea. The first and second dorsal vertebræ were deeply carious; and in front of them, and behind the œsophagus, was a large abscess. Just below, and to the right of this abscess, was an enlarged, firm, caseous, bronchial gland. The right pneumogastric nerve passed between this enlarged gland and the abscess-sac, and was compressed by them at the point whence the cardiac plexus of nerves was given off. Immediately above this point the vagus was swollen and fusiform, and was found on microscopical examination to be in a state of chronic interstitial neuritis. During the last paroxysm of violent coughing, the continuous pressure on the nerve must have been intensified, probably by a kind of pounding motion, which was sufficient at last to produce cardiac paralysis. No previous slowing of the pulse, such as might have resulted from vagal irritation, seems to have been noticed during the history of the case.

Clinical Aspects of Cerebral Syphilis.—Under this title Professor Horatio Wood publishes in the *Philadelphia Medical Times*, for March 8th and 22nd, an elaborate review of the present state of our knowledge of this affection, in which its ætiological relations are ably set forth. A general conclusion which he arrives at is, "I may state that it must be considered as at present proved that syphilis may produce a disorder, whence symptoms and lesions do not differ from those of general paralysis; that true general paralysis is very frequent in the syphilitic; that the only perceptible difference is one of curability; that the curable sclerosis may change into, or be followed by, the incurable form of the disease. Whether, under these circumstances, it is philosophic to consider the so-called pseudo-general paralysis and general paralysis as essentially distinct affections, each physician can well judge for himself."

The Microbe of Erysipelas.—In a lecture recently delivered at the Charité by Professor Hardy, he observed that the contagiousness of erysipelas had been proved by the existence of microbes, demonstrated by Professor Bouchard. These were abundantly exhibited in the serosity of the phlyctenulæ in the cases now under consideration. These microbes bear a strong resemblance to those of puerperal fever, being of a very regular spherical figure, and existing sometimes in an isolated condition, but at others attached to each other in a plane surface, or arranged as chaplets or columns. In some instances they were surrounded by an envelope, which, becoming ruptured, left the microbe free. —*Gazette des Hôpitaux*, April 3.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

Thursday, May 15th, 1884.

G. P. Field, M.R.C.S., President, in the Chair.

Hypospadias.

Mr. Edmund Owen showed a coloured drawing of a subject of Hypospadias in which the sex had been originally mistaken. The child had been named Florence Kate, but when Mr. Owen saw it, at the age of 16 months, he discovered the testes near the crest of the pubes and

suggested that the name be changed. The boy was therefore re-registered by the name of Sydney. He was now four years old and was in every other respect well developed. If there were a doubt at any time about the determination of the sex of a child, it was much more likely to be an imperfectly developed boy than a girl.

Adjourned Debate on Scarlet Fever.

Mr. Cripps Lawrence, referring to the report of his opening remarks (on April 3rd), which had appeared in the Medical Journals, stated that the expression "imperfect volatility" should have been used instead of "volatility" in connection with the poison of scarlet fever, in accordance with the drift of his observations on that subject.

Dr. Cheadle, in re-opening the debate, laid stress upon the specific nature of the virus. Its elaboration required a longer time than that of measles; the latter was contagious almost from its earliest manifestation, whereas the former was much less potent prior to the appearance of the rash than during desquamation. Families and individuals differed widely in their liability to the disease. The nature of this susceptibility was a subject well worthy of the attention of the "Collective Investigation Committee." Again, the same persons showed very different vulnerability at different times. This was illustrated by the case of a former house surgeon of the Hospital for Sick Children, who, after having resisted the concentrated infection of a scarlet fever ward, contracted the disease in the midst of the duties of a country practice. *Surgical Scarlet Fever* was probably contracted by contamination of the highly absorbent surface of recent wounds. In strict analogy with what happened in inoculated small-pox the incubation was much shortened and the disease attenuated. Propagation by wound, inoculation, was not hitherto known in the case of measles or enteric fever. The influence of race as an ætiological moment was open to some doubt. The difference in severity observed in scarlet fever in France and in England respectively, was best explained by reference to past history. Formerly, scarlet fever had been very mild in this country; Bretonneau, on the other hand, had recorded a severe outbreak, contrasting with his previous experience of the disease in France. The variations were rather between epidemics than between countries. Climate, however, probably exercised an influence, although this was not necessarily based upon mere degree of temperature. Thus in India the disease, although repeatedly introduced, had never obtained a footing, whilst in Southern Africa it had lately assumed considerable virulence. In diagnosis extreme caution was necessary in cases where a rash coincided with any rise in temperature; and instances were adduced to illustrate the difficulty often experienced in forming an opinion at an early stage of the symptoms.

Dr. Squire had given some attention to the general epidemiology of the subject. Whereas epidemics differed greatly in virulence, race did not constitute a leading factor. That improved sanitation did not exercise any marked control over the march of the disease, its recent aggravation in England furnished clear proof. The immunity of India was due to the comparative isolation of the European element by whom the disease was imported, by the early removal of European children, and above all by the absence of most of the agencies which in this country bring about contagion from person to person. This pointed to the direction in which improvement might be effected. In France, children were systematically inspected before their admission into school; but in England too frequently attendance at school was enforced in the face of sanitary indications. Although the shortened incubation of surgical scarlet fever had been adduced as proof of its inoculation into wounds, this point was far from settled. A case was narrated in which the injury was received and scarlet fever contracted three days after entrance into a new house which could not have supplied any contagion. Hardly enough stress had in the previous discussion been laid upon desquamation as an infecting agent. In respect of treatment, mischief was likely to arise from the indiscriminate use of the warm bath in the premonitory stage. This practice was well calculated to aggravate the pyrexia and to favour the onset of convulsions in children.

Dr. Hopwood had collected twelve good cases in which the duration of exposure had been limited to half-an-hour or an hour, and onset had followed in 68 to 78 hours. Surgical scarlet fever was not a distinct variety. The disease had been contracted under the use of every antiseptic precaution, including the spray, and in cases where the wound had run an aseptic course diagnosis was often difficult. In German measles desquamation was generally limited to the head and neck. In this disease it was possible to distinguish a morbilliform and a scarlatiniform variety. One variety was capable of breeding the other.

Mr. Malcolm Morris deprecated harsh criticisms of the diagnosis of fellow-practitioners. In scarlet fever four prominent indications required consideration:—the rash, the throat, the tongue, and the pyrexia; any of these or several might fail us. The rash was the most important, for in its complete absence diagnosis was at best but a guess. There were two typical varieties of eruption—the hæmorrhagic variety, special to severe cases, and the milder punctate form. Urticaria was often most difficult to diagnose from scarlet fever; but where any doubtful rash existed, isolation was the means to adopt, although the event might falsify our apprehensions. An exterior desquamation was an important guide. Of all the means proposed for checking the diffusion of contagious epidemic scales, constant bathing, as suggested by Dr. Jamieson, in the *Edinburgh Medical Journal*, was the most promising, yet better results might be expected from continuous immersion during two or three days at the height of desquamation. Continuous immersion was practised in Vienna with good results in the case of burns.

Mr. Mason considered the question of the spontaneous development of the disease, and narrated a series of cases occurring in the same house. A child died in four days from the hæmorrhagic form of the fever, the nurse suffered from severe diphtheritic sore throat, and the father acquired severe erysipelas before the dead body had been removed. Although inspection revealed no insanitary condition in the house, decaying vegetable refuse was discovered in the vaults opening into the area. Contagion was capable of clinging for long periods to articles of clothing. In the speaker's experience most of the parturient women infected by the disease were quite free from all abrasion. Diffuse peritonitis had generally ensued, abrupt in its inception, violent in its course. The desquamation stage was best treated by carbolised inunctions and warm baths. A case was adduced in support of the volatility of the contagion.

Dr. Dawson Nesbitt suggested that the mildness of the disease in France might bear some relation to the lighter diet adopted in that country. The question whether practitioners engaged in midwifery should attend scarlet fever was one requiring serious consideration.

Dr. Alderson, after anxious investigation of the subject last mentioned, had arrived at the conclusion that very rarely could puerperal disorders be traced to scarlatina infection. He had repeatedly attended parturient women where scarlet fever was in the house. Two instances were related in which the parturient mother escaped, although children were at the time suffering from the disease, in one case from a severe form. The danger from erysipelas was much more real. In his series of upwards of 1,500 confinements, he had only known one case of real puerperal scarlet fever; on that occasion he had not attended any case of scarlet fever the same day. Isolation of unattacked persons, when enforced prior to exposure to desquamation, could be looked upon as completely successful after the lapse of ten days. In confirmation of this statement two cases were fully detailed.

Mr. Edmund Owen related three cases of surgical scarlet fever. In one case tracheotomy was performed for the removal of a fish-bone; scarlet fever ensued after two days, and the nurse took genuine scarlet fever from the patient. An operation for cleft palate in a boy was followed by elevation of temperature, erythematous rash and albuminuria. Scarlet fever was at that moment prevalent in the hospital. The fact that eight days after the operation the wound was found to have healed from end to end, showed that no asthenic influence was exercised. The third case was one of amputation of the thigh for disease of the knee-

joint. Sore throat and regurgitation of food through the nose led to the suspicion of scarlet fever, although the temperature was normal; and the patient was sent to the Fever Hospital, where the wound progressed most favourably. No desquamation was noticed. Mr. Owen also alluded to the experience of Mr. George May, jun., related in the *British Medical Journal*, for 1879, in which several children acquired scarlet fever from a surgical case of the disease, which Mr. May had, at first, held to be septicæmic, not scarlatinal.

Dr. MEADOWS regretted that the terms "surgical" and "puerperal scarlet fever" had ever been invented. The disease in every case conveys itself and nothing else; whoever attends any considerable number, should not attend pregnant women. As to the mode of infection, an analogy had been drawn between the placental site and an amputation wound. No such analogy existed; and in addition the vagina was closed, and the uterus practically closed. But there did exist a condition of blood, causing susceptibility to the poison. Although little could be said in support of carbolised spray during delivery, vaginal injections and uterine injections were of the greatest value in removing the secretions which most frequently were answerable for puerperal fever. Uterine injections should only be practised according to definite rules, regard to which would preclude the danger of peritonitis *ab injectione*.

Mr. CRIPPS LAWRENCE was glad that the debate he had introduced had been so fruitful in suggestions. He was thankful to have had an opportunity of discussing the "conscience-clause," to which he had always adhered. Time did not allow of a detailed reply to the observations made by the various speakers.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE V.

FOOD.

Tea—Maté—Coffee.

IN this number we commence a series of articles on the food products at the Exhibition, which will differ in some important respects from those appearing in so many weekly and daily journals, more especially in that we accept and reproduce no statement relating to any exhibit without a strict examination, nor do we give any decided opinion save after a chemical and microscopical investigation.

The exhibitions of food products occupy much space, and are pretty well all collected in the South Gallery; their position is therefore such that the first visual impression on entering, and the last visual impression on leaving the Exhibition is necessarily that of the various cases containing alimentary products.

Tea.

Considerable prominence is given to teas cultivated in India. About half a century ago in the virgin forests of Assam, the indigenous Indian tea plant was discovered, and in 1840 the Assam Company was founded, but for several years Indian teas were little known and produced but in small quantities. Their cultivation has, however, been so developed by British capital and British planters, that 240,000 acres of jungle have been cleared in various Indian districts, and the out-turn has grown from a million of pounds in 1864 to 60 millions of pounds in 1883, which is equal to one third of the whole consumption of the United Kingdom. If this process goes on, a time will come when tea will be wholly and entirely supplied from plants grown within the limits of the Empire, a very desirable consummation.

We have specially examined three samples of tea of the Kangra Valley Association.

Nearly all the analyses of tea published, represent not what the people actually drink, but the amount of matter the chemist can extract. This mode of judging of the quality of tea is essentially erroneous. We have, therefore, examined these by imitating as far as possible domestic tea-making. A known weight of tea has been infused in London water, at 212° F.; and after standing the usual time, the water has been poured off, and a little more added, and the same process repeated. The infusion has then been made up to a known bulk, and the tannin, theine, extract and ash therein estimated. Examined in this way, a good idea is formed of what is actually consumed, for the amount of tannin, theine, cellulose and mineral matter left in the tea-pot is of scientific interest only.

1. Kangra Valley tea, Orange Pekoe, price 4*s.* per lb. A one per cent infusion yielded:—

	Grm.
Theine	·029
Tannin	·144
Total extract	·28
Ash	·04

2. Kangra Valley tea, Pekoe, price 3*s.* per lb. A one per cent. infusion yielded:—

	Grm.
Theine	·025
Tannin	·138
Total extract	·28
Ash	·04

Both these samples are high-class teas, but although there is no less than 1*s.* per lb. difference in price, neither analysis nor taste differentiates them in the same degree; the higher priced is a little more astringent and nitrogenous than the lower, but the flavour of the Pekoe was preferred by all the people to whom it was submitted.

3. The third tea, named Pekoe Souchong, price 2*s.* 6*d.*, gave, when examined in the same way:—

	Grm.
Theine	·016
Tannin	·090
Total extract	·22
Ash	·04

It is thus considerably weaker in all constituents extracted by water, but it has an excellent flavour, and is about the best 2*s.* 6*d.* tea the writer has ever examined.

We have also studied two high-priced teas sold under the names of Hands' afternoon tea (4*s.*), and Hands' blended Kaisow (5*s.*), in precisely the same way, with the following results:—

—	Hands' afternoon tea, in 100 c. c. of infusion.	Hands' blended Kaisow, in 100 c. c. of infusion.
	Grm.	Grm.
Theine	·024	·028
Tannin	·082	·054
Total extract	·228	·484
Ash	·056	·084

The last teas ejected, when infused are thus seen to be less astringent than those of the Kangra Valley; the flavour and general qualities are of a high character.

Leaving the Indian teas, Messrs. Goundry and Co. exhibit their patent consolidated tea. By hydraulic pressure a quarter of a pound of tea is reduced to a firm, solid little block which might be carried in the waistcoat pocket. The compressed tea was treated in the same way as the rest, viz., by the method of infusion. It yielded:—

	In 100 c. c. Grm.
Theine	·032
Tannin	·056
Total extract	·256
Ash	·020

The manufacturers affirm that more extract is obtained from tea which is compressed, than the same tea in the natural state; the immense pressure breaking up the parenchyma, and as it were pulverising the tea-leaf. We find this statement to be correct, but the difference in the amount of extract obtainable is so small as not to have much practical value. For convenience of carriage this consolidation of tea will be found most useful. If we mistake not, the pro-

cess in a less perfect degree is as old as the cultivation of the tea-leaf, a very large proportion of Chinese teas having been always exported Overland in the form of what has been called "*brick tea.*"

Guided by the analyses quoted, it may be useful for the physician to know in English grains per ounce the quantity of active constituents in tea infusion, which, with ordinary good tea, we believe will be nearly as follows:—

	Grains per fluid ounce.
Theine	·10
Tannin	·35
Total extract	1·30

It hence follows that twenty ounces of tea will not contain a dose of theine sufficiently large, if given by itself, to produce any evident physiological effect.

Maté.

There are two exhibits of the Maté leaf and twigs, otherwise called "Paraguay tea." Dr. W. Fleming Phillips, has sent a sample, together with the maté cup and the *bombilla* (No. 19), while Messrs. Christy also show a sample in their exhibit of new food products (No. 98). The two samples of maté are practically identical, no difference in quality can be detected; they may, for aught we know, have been derived from the same bundle.

In the Argentine Republic the annual consumption of maté is said to be 27 million pounds. The usual way of making the tea is to pour hot water on the leaf, then add a lump of burnt sugar, and finally a few drops of lemon-juice, but the latter addition is often omitted. The infusion is not drunk from cups, but sucked up through a tube (*bombilla*) which, possessing a perforated bulb or strainer, filters the tea.

An infusion of the little twigs and leaves, made precisely on the lines of the other teas examined, gave the following results:—

In 100 c. c. of Maté infusion (strength 1 per cent.).

	Grm.
Theine	·015
A peculiar tannin	·051
Total extract	·164
Ash	·004

The taste was rather pleasant, and reminded one of ordinary tea; it certainly was more agreeable in every way than some of the cheap Chinese teas, and as it could be imported into this country at a very low rate it might supplant inferior teas if its use could in any way be popularised.

Coffee.

The use of coffee seems to have somewhat declined of late years, the reason without doubt being the unfair treatment the berry has from first to last received. It has been adulterated more than any other substance; it has been mixed with all sorts of things; great companies have been started with the avowed object of manufacturing and selling a substitute for coffee; and, lastly, few people have known how to make an infusion, so as to bring out its virtues. We are, therefore, much pleased to see the efforts made by the coffee planters and merchants to instruct the public in the Exhibition. There are not only model coffee-houses and stalls, but exhibits in which improved methods of roasting and preparing the coffee berry are to be seen in daily operation.

Beare, Gosnell and Co., in the Western Gallery (No. 1,245), show machinery for making and roasting coffee, and also an ingenious machine for roasting small quantities at the breakfast table. They rightly say that the whole secret of making good coffee is to use only the freshly roasted and freshly ground berry.

A sample of their coffee (1*s.* 6*d.* per pound) infused with boiling water so as to equal a 5 per cent. solution, gave the following results:—

	In 100 c. c. of infusion. Grm.
Theine	·032
Caffeo-tannic acid	·160
Total extract	·945
Ash	·180

Since the full flavour of coffee can only be obtained by grinding and infusing the freshly roasted berry, numerous attempts have been made, with more or less success, to concentrate the infusion of good coffee into an essence. We have recently examined an essence of coffee from the exhibit of Mr. Thos. Curr (No. 77), in which a fair amount of success has been obtained. The extract contains

	Per cent.
Water	37·0
Organic extract (ash free) ..	60·1
Ash	2·9
Nitrogen	·49

This extract makes a good cup of coffee, but, as might be expected, a little of the delicate aroma is lost.

GENERAL CORRESPONDENCE.

HYDRO- AND PYO-SALPINX.

[To the Editor of the Medical Times.]

SIR,—Mr. Lawson Tait's letter on the above subject in your issue of May 17th has only just come under my notice. In my remarks at the Obstetrical Society, November 7th, 1883, which Mr. Tait refers to, I did not say cases of hydro- and pyo-salpinx were never found in the *post-mortem* room of Guy's Hospital, but that they were so rare that I myself had never seen a case. In his reply to my remarks, Mr. Tait stated (*vide British Medical Journal*, December 7th, 1883) that "cases of pyo-salpinx were not seen in hospital *post-mortem* rooms, because they commonly died from peritonitis too quickly to come into hospital." It is curious that now in his letter Mr. Tait virtually admits that they do not die too quickly to get into hospital *post-mortem* rooms, but that they are not more frequently met with he explains away by saying they are not properly looked for by the pathologists. Mr. Tait asserted also at the Obstetrical Society that four or five, it might be even eight or ten, of the sixty-five cases he had operated on had been under treatment at Guy's Hospital. With the view of obtaining the medical reports of these cases from the records at Guy's, I wrote to Mr. Tait for the names of the patients he had referred to. I extract the following from his reply, dated November 10th, 1883:—

"But one thing I will not do—and that probably is essential for the fulfilment of your intention—I will not give any clue to the identification of cases. I will give you the history and symptoms recorded, and will let you have the preparations of the tubes removed; but my past experience of permitting this class of cases to be identified has been so unpleasant for the patients that I shall not willingly make such a mistake again."

In a postscript Mr. Tait mentions one case about whom he states identification does not matter. She was a woman with three aliases, and I have not been able to find that she was ever under treatment at Guy's Hospital under any one of the three names given to me by Mr. Tait. What I maintain is that cases of hydro- and pyo-salpinx are not very common, and when they do occur, treatment by rest, local applications, and internal remedies is often sufficient to effect a cure without using the knife. I have just had a case under my own care in Guy's Hospital cured by this plan.

I am, Sir, yours &c.,

P. HORROCKS.

St. Thomas's Street, S.E.
May 26th, 1884.

AN EXPENSIVE PRESCRIPTION.—It is scarcely credible, says the *Allgemeine Wien. Zeit.* (May 6th), but it is quite true, that in Vienna, the "seat of the most renowned faculty in Europe," a young physician has prescribed gold—the inutility of which in the treatment of disease has been acknowledged for the last 200 years—for the relief of an obstinate nervous affection. The prescription for 40 or 50 pills costs 12 florins, so that their prolonged continuance will need the purse of a Rothschild. Thus far the patient finds that they lie very heavy at his stomach, and his health is rather worse than better.

INVENTIONS AND IMPROVEMENTS.

THE OBSTETRIC VADE-MECUM.

Messrs. Coxeter, of Grafton Street East, Tottenham Court Road, have introduced, on the suggestion of Dr. Charles Read, a handy bag for midwifery and cases of abortion, intended especially for the general practitioner. The peculiarity of this new device is that it contains every

appliance required for the conservative treatment of obstetric difficulties, while omitting all those of a destructive nature. The bag does not contain, nor is it intended to contain, the heavy and unwieldy instruments needed for craniotomy, cephalotripsy, and embryulcia, and it is thus possible for it to be eminently portable. We hope that no practitioner is so over-ready with his fœticide appliances, as to use them, when it would be possible to do without them. But it may be pointed out that in town-practice the delay involved in sending for them, in the rare cases in which they are needed, would seldom be prejudicial to the mother, while in country practice the practitioner would probably have them at hand in his trap. As for consulting obstetricians, even Dr. Read, we imagine, would hardly advise them to make his Vade-Mecum their sole companion when called to a case of difficulty. We may say, in conclusion, that we have carefully gone through the contents of the bag, and can suggest no addition; and, indeed, when it is considered that they include everything recommended in Dr. Barnes' "System," any such suggestion might almost seem to savour of impertinence.

PICHARD AND CURRY'S DOUBLE ADJUSTABLE TRIAL FRAME.

(Suggested by Dr. Tosswill, of Exeter).

The principal advantages claimed for this frame are its extreme lightness, and the great facility which it affords for working out cases of astigmatism, whilst the mechanism is of the simplest description. It consists essentially of two flattened graduated rings, behind which are semi-circles for the reception of the spherical lenses. In front of each broad graduated ring is a narrow movable one, to which is attached a steel semi-circle for the reception of the cylindrical lenses. Each movable ring has a small rod-like handle, which projects beyond the graduated ring, and by means of these handles the surgeon can alter the position of the cylindrical lenses to any extent he pleases, without touching the lenses or removing the frame from the patient's face. The position of the cylindrical axes can be read off at any time by means of the graduated rings. Both graduated rings are attached by steel stems to a divided bar, one ring being fixed and the other movable; whilst the nose-piece is made to move both vertically and laterally, so as not only to be adjusted to the exact height of the nose, but also to the exact centre between the two rings. By means of the graduated divided bar, the inter-pupillary space may be accurately determined.

MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen were admitted licentiates, on May 29th, 1884:—

Arthur Cecil Deare, 40, Bassein Park Road, W.; William Raoul De Morinni, St. Bartholomew's Hospital, E.C.; Percy Edmund Maitland, 12, Albert Street, N.W.

Royal College of Surgeons of England. — The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 29th ultimo, and when eligible will be admitted to the pass examination for the Fellowship, viz.:—

Messrs. Frederic J. Smith, student of the London Hospital; William Permewan and Paul W. Fraser, of University College Hospital; Albert Careless, of King's College Hospital; John A. Smith, of St. Bartholomew's Hospital; George Rowell and John W. Washbourn, of Guy's Hospital; John Cahill, of St. George's Hospital; and Henry Tonks, of the London Hospital.

Nine candidates having failed to acquit themselves to the satisfaction of the Board of Examiners were referred to their Anatomical and Physiological studies for six months. Ninety candidates presented themselves for the examination just completed, as compared with 86 at the corresponding period last year; of this number 48 were referred for six months' additional studies.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 29th, 1884:—

Charles Joseph Arkle, 18, Portland Terrace, Regent's Park, N.W.; Henry Samuel Cook, Acock's Green, near Birmingham; Andrew Watson Kerr, 29, Prospect Street, Belfast; Charles Patrick Maguire, 1, Compton Street, W.C.; Joseph Hugh McMullan, Belfast; George Samuel Sims, St. Thomas's Hospital; Joseph Eagland Walker, 158, Stanhope Street, N.W.; William Windley, 27, Disraeli Road, Putney.

Royal College of Surgeons in Ireland.—The College of Surgeons held their meeting on the 29th ultimo, pursuant to the provisions of the Supplemental Charter, to elect officers for the ensuing year, when the following gentlemen were elected:—Presidency: Edward Halloran Bennett. Vice-Presidency: Anthony H. Corley. Secretaryship of the College: William Colles. Council: William Colles, Sir George H. Porter, James H. Wharton, William A. Elliott, George H. Kidd, T. Jolliffe Tufnell, Edward Hamilton, Robert M'Donnell, J. Kellock Barton, Edward D. Mapother, Archibald H. Jacob, Philip Crampton Smyly, William Stokes, W. Thornley Stoker, William Stoker, William I. Wheeler, Samuel Chaplin, William Carte, Charles A. Cameron, Henry Fitzgibbon.

University of St. Andrews.—The extension of the museum and the erection of biological laboratories having become urgent, because of the requirements of modern science teaching, the authorities of the University have resolved to approach Government with a view to secure these very desirable objects. There are few situations in any country better adapted on the whole for the combination of a biological station with laboratories than St. Andrews. The proximity of the city to the sea—with the fine stretch of sand on which so many rare specimens are thrown by storms, or gently stranded by ordinary tides—in juxtaposition with the University and its valuable library and museum, afford facilities for zoological research such as are rarely to be met with. More than twenty years ago, Dr. Mackintosh, the present Professor of Natural History, brought this under notice in various lectures. In the beginning of 1875, the subject was again prominently referred to, and amongst others, Dr. Dohrn, of the celebrated zoological station at Naples, cordially concurred. He indeed alluded to the University as, by "its position near the sea, inviting more than any other to the now all-important study of marine zoology." Finally, in March, 1883, an effort was made to obtain a portion of a considerable sum of money handed over by the Committee of the Edinburgh Fisheries Exhibition to the Scottish Meteorological Society, with a view to founding such a station at St. Andrews. The authorities of the University of St.

Andrews believe that this extension would result in great good to science and the public; and they feel assured that their efforts will be warmly supported.

Naval Medical Department.—The following promotions and appointments have been made:—Inspector-General of Hospitals and Fleets J. N. Dick, to Haslar Hospital. Staff-Surgeon H. C. Woods, M.D., has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet. Fleet Surgeon E. H. Evans has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets. Fleet Surgeons —G. Mair, M.D., to the *Durham;* Samuel Bamfield, to the *Sultan;* Staff Surgeon—Richard V. McCarthy, to the *Serapis;* Surgeons — Percy W. Bassett-Smith, to the *Triton;* Denis W. Donovan, to the *Monarch;* Hugh W. McNamara, to the *Helicon;* Henry B. Collins, to the *Woodlark.*

Charitable Bequests.—Mr. George William Nugent has left the following legacies:—200*l.* each to the Seamen's Hospital, late the 'Dreadnought,' Greenwich; the London Hospital, Mile End; St. Mark's Hospital for Fistula, City Road; the Royal Free Hospital, Gray's Inn Road; the Free Hospital, Commercial Street, Spitalfields; the Western General Dispensary, Marylebone Road; St. Mary's Hospital, Paddington; the Hospital for Sick Children, Great Ormond Street; the Female Lock Hospital and Asylum, Harrow Road; the Middlesex Hospital, Berners Street; the Hospital of St. John of Jerusalem, Great Ormond Street; and St. Raphael Hospital, Sydney Street, Fulham Road. The late Mr. John Smith, Aberdeen, has bequeathed 200*l.* each to the Royal Infirmary, Convalescent Hospital, and General Dispensary in that city.

The City Coroner.—At a court of Common Council held a few days since, the Officers and Clerks Committee brought up a report relating to the vacant office of City Coroner, recommending that as heretofore the court should appoint one person to be Coroner of the City of London, and the town and borough of Southwark; that it was not expedient to confine the qualifications of candidates either to the legal, medical, or any other profession; that the gentleman appointed should undertake to discharge personally all the duties of the office, except when prevented by illness or other reasonable cause, and that he should be required to provide an office within the City. The total remuneration for both offices was at present 1,055*l.* per annum, but that remuneration was subject to increase or decrease, on revision, by the Justices of the City of London and the county of Surrey respectively, in accordance with the provisions of the statute. The report was agreed to, and the Town Clerk said the Lord Mayor had arranged that the election of the City Coroner should take place at the next meeting of the court on June 12th.

Hospital for Consumption, Brompton.—The annual court of governors was held on May 29th. From the report it appeared that there had been 1,537 in-patients admitted in 1883, compared with 1,033 in 1882. Of 1,763 altogether under treatment, 1,243 had left, many greatly benefited, 209 had died, and 311 remained in the hospital on the 31st of December last; 13,341 new out-patient cases had received advice and medicine in 1883. The receipts had been—Annual subscriptions, 6,840*l.* 17*s.* 6*d.*; donations, 4,336*l.* 6*s.*; Church collections and Hospital Sunday and Saturday Funds, 1,800*l.* 7*s.* 5*d.*; incidental receipts, 971*l.* 7*s.* 11*d.*; legacies, 9,318*l.* 3*s.* 6*d.*; rents, 1,133*l.* 14*s.* 5*d.*; dividends, 1,892*l.* 14*s.* 1*d.*—total, 29,393*l.* 10*s.* 10*d.* Expenditure, 24,882*l.* 6*s.* 1*d.*; do. in respect of new building, 5,404*l.* 8*s.* 10*d.*—total, 30,286*l.* 14*s.* 11*d.* The committee desired to call attention to the financial position of the charity. There were now 331 beds in the two buildings, and to keep these occupied 24,000*l.* a year or more would be needed. Towards this the only fixed income was about 2,850*l.* from rents and dividends, the latter source of income being, however, reduced by every sale of stock from the limited capital, these sales having already become needful on account of the great increase in the expenditure since the opening of the new building. The hospital was, therefore, not rich, as so many supposed it to be; but on the contrary, it was only by means of increased subscriptions and liberal donations, with the help of legacies, that this great work could be carried on, and the necessity for closing some of the wards could be averted.

County Infirmaries in Ireland.—At a meeting of the Statistical and Social Enquiry Society of Ireland, held on Tuesday, May 20th, Dr. Hercules McDonnell, Surgeon to the Dundalk Infirmary, read an interesting paper on the subject of the "County Infirmaries of Ireland." Each county infirmary exists as a separate unit, controlled by its own board of governors, and answerable only to the grand jury of its own county. They were originally established by Act of the Irish Parliament in 1765, to afford medical and surgical relief to the poor. The cases admitted are in all essentials of the same class as those treated in our metropolitan hospitals. Their means of support are mainly derived from presentments levied as county cess. The 27 county hospitals had in 1881 1,580 beds available and in use, giving an average to each of 58½; 12,953 patients were treated as interns, giving an average to each institution of 479. The gross expenditure amounted to 29,264*l.* 18*s.* 9*d.*, or an average cost per patient of 2*l.* 5*s.* 4*d.*, and per bed 19*l.* 10*s.* 5½*d.* The actual cost of the infirmaries to the cess-payer amounts to one halfpenny per 1*l.* of his valuation. For this amount he obtains the advantages of having an hospital replete with every surgical and medical appliance, and maintained in a state of efficiency, which compares most favourably with our metropolitan hospitals. The rooted repugnance which exists to entering a workhouse hospital does not obtain here. No pauperising element enters into the question, nor is anyone disfranchised for accepting such relief.

Experiments on Animals.—At the recent meeting of the American Medical Association, the following resolution, proposed by Dr. Horatio C. Wood, of Philadelphia, was adopted unanimously—"Whereas it appears that an effort is being made to restrict by legislative action the practice of investigation in medical science by experiments on animals; and whereas, in the opinion of this Association, such restriction is not needed for the guidance of medical men in their investigations, and would be an injury and hindrance to the pursuit of knowledge and the improvement of the medical art; it is therefore resolved that a standing committee of seven be appointed by the President of the American Medical Association, to be known as the Committee on Experimental Investigation, charged with the duty of opposing, by all legitimate means, any interference with the progress of medical science by unwise or ill-considered legislation." The Committee appointed consists of Drs. Horatio Wood, W. Pepper, James Tyson, of Philadelphia; Christopher Johnston, of Maryland; J. C. Dalton and Austin Flint, jun., of New York; and J. S. Billings, of the United States Army.

Hospital Saturday and Sunday in New York.—*The New York Medical Journal* reports that "the sum collected for Hospital Saturday and Sunday in 1883 amounted to $43,062.74, or more than $12,000 in excess of the collection of the preceding year, and only $1,000 less than the largest collection ever made, viz., that in 1880, which included a special gift of $5,000. In the light of these facts and of the commercial depression that marked the close of the year, the time when the collection was made, the Association seems abundantly justified in regarding the result of its labours for the year as decidedly encouraging. But it is not only in the matter of the gross sum collected that an inference is to be drawn implying that the people of New York are not flagging in true interest. Looking over the list of sources from which the contributions were derived, we notice a great many that have never figured before. On the other hand, it is quite rare to find a blank opposite the name of any former contributing organisation. The Association may also derive satisfaction from the small proportion of 'designated' contributions, being those accompanied by a specification on the part of the contributor of the hospital to which he prefers his gift to go. This indicates a degree of confidence in the Association's plan of dividing the money that could not be felt except for good reasons."

NON-RESTRAINT IN AMERICAN ASYLUMS.—When we recollect the opposition so long offered to the introduction of the non-restraint system into the asylums of the United States, it is very gratifying to learn that this is soon likely to be a thing of the past. The *New York Medical Record* of May 17th, after alluding to the adoption of the system by asylum after asylum, observes, "The charge has been made that those who have given up mechanical restraint have supplied its place with drugs; but this charge is refuted by the elaborate investigation of the late Dr. Wildbur, who showed that in the asylums, both in Great Britain and the United States, with non-restraint a less amount of sedative drugs was used. In fine, the opinions of American asylum superintendents upon the subjects of non-restraint and occupation have undergone a surprising change in the last five years."

ABDOMINAL SURGERY.—At the meeting of the Canada Medical Association in Montreal, an address in Abdominal Surgery will be given by Mr. Lawson Tait.

AT the last meeting of the Court of Common Council, the Lord Mayor presiding, two hundred guineas were voted in aid of the funds of the Royal Free Hospital.

APPOINTMENTS.

ACLAND, T. D., M.B.—Assistant Physician to the Hospital for Consumption and Diseases of the Chest, *vice* D. King, M.B., resigned.

BARLING, G., M.B.—Honorary Assistant Surgeon to the Birmingham and Midland Counties Orthopædic and Spinal Hospital, *vice* E. L. Freer, M.R.C.S., resigned.

CATHCART, W., M.B., F.R.C.S.E., Assistant Physician to Edinburgh Royal Infirmary.

GRANT, H. L., M.B.—Assistant Medical Officer to the Buckingham County Asylum, Stone, near Aylesbury.

JEFFERISS, WALTER ROBERT SPENCE, L.R.C.P. and L.R.C.S. Edin., M.B. Univ. Edin.—Medical Officer to the Second District, Alston-with-Garrigill parish, *vice* Dr. Alfred Pickworth, resigned.

JESSOP, C. M., M.R.C.P.—Physician to the St. Pancras and Northern Dispensary.

LOVERIDGE, A. W., M.R.C.S.—House Surgeon and Secretary to the West Norfolk and Lynn Hospital, *vice* S. H. Lindeman, M.R.C.S., resigned.

MACAULAY, SAMUEL, M.D. and M.C.Q.U. Ire., L.M.K. & Q.C. Ire., L.S.A. Lond.—Medical Officer to the Sixth District, Maidstone Union, *vice* Mr. J. W. Bury, resigned.

MCCULLOCH, ALLEN, M.B. and M.C. Glas.—Medical Officer to the Tarporley District, Nantwich Union, *vice* Dr. Potts, resigned.

MURRAY-ROBERTSON, T., M.B., M. Ch. Edin.—House Surgeon to the Durham County Hospital, *vice* C. H. Milburn, M.B., C.M., resigned.

ORWIN, ARTHUR, W., M.D.—Surgeon to the Central London Throat and Ear Hospital.

POWELL, J. A., M.B.—House Surgeon to the Worcester General Infirmary, *vice* M. B. Shirley, L.R.C.P., resigned.

STUART, WILLIAM, M.B. and M.C. Aberdeen.—Medical Officer to South District, Stratton Union, *vice* John Henry Tuke, resigned.

VACANCIES.

BLOFIELD UNION.—Medical Officer to the Acle District, in succession to Mr. W. H. Cufaude, deceased. Area, 24,151 acres. Population, 5,031. Salary, £70 per annum.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £130 per annum, with prospect of increase, residence, and coals, and gas. Candidates must be duly qualified. Applications, stating age, previous experience, with testimonials, to be sent to the Honorary Secretary, on or before June 12th.

CUMBERLAND INFIRMARY, CARLISLE.—House Surgeon. Board and lodging provided. Applications and testimonials to be sent to the Secretary (from whom can be obtained particulars of duties and qualifications), on or before June 10th. The appointment will be made on June 25th.

DEWSBURY UNION.—Medical Officer to the Heckmondwike District, in succession to Mr. James Turton, resigned. Area, 697 acres. Population, 9,283. Salary, £20 per annum.

EAST SUSSEX, HASTINGS, AND ST. LEONARDS' INFIRMARY.—Assistant Physician. Candidates must be duly registered Doctors or Bachelors of Medicine of some University of Great Britain or Ireland, or Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications, with testimonials, to be sent to the Secretary, not later than 10 o'clock on the morning of June 10th, the day of election.

FLINTSHIRE DISPENSARY.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, &c. Candidates names must appear upon the Medical Register as being possessed of a medical and surgical qualification, and they must produce evidence of good moral character. Private practice strictly prohibited. Applications, with testimonials, to be sent to the Secretary, on or before June 11th. The election to take place on June 18th.

QUEEN'S COLLEGE BIRMINGHAM.—Professorship of Anatomy. Salary £262 10s. per annum. Applications with testimonials, to be sent to the Secretary, Joseph Lewis, 21, Paradise Street, Birmingham (from whom further particulars can be obtained), on or before June 30th.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS, E.C.—Physician. Applications, with qualifications and testimonials, to be sent to the Secretary, on or before June 9th. The election will take place on June 10th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Chair of Physiology. (*For particulars see Advertisement.*)

ST. MARY'S HOSPITAL, W.—Medical Superintendent. Salary £150 per annum, with board and residence in the Hospital. Candidates must be doubly qualified and registered under the Act, and must have filled the office of Resident Medical Officer at some General Hospital. Application to be sent to the Secretary, on or before June 10th.

DEATHS.

ALDRIDGE, J. P., M.D. and J.P., at Shirley House, Dorchester, on May 22nd, aged 71.

CUFAUDE, W. H., M.R.C.S., L.S.A., at Acle, Norfolk, on May 24th.

FINCH, F. C., M.D, late of Blackheath, Kent, at Pau, Basses Pyrénées, France, on May 28th, aged 70.

HALL, JOHN, M.D., at Woodley, Ruddington, near Nottingham, on June 2nd, in his 42nd year.

RULE, G. F. H., M.R.C.S., at 26, Elgin Crescent, W., June 4th, aged 40.

TWEEDIE, ALEXANDER, M.D., F.R.S., late of Brook Street, Grosvenor Square, at Bute Lodge, Twickenham, on May 30th, in his 90th year.

WALTER, JAMES KING, Surgeon-Major, retired list, Indian Army, at Mansfield House, South Hampstead, on May 28th.

NOTES, QUERIES, AND REPLIES.

Fellowship Examinations.—At the half-yearly final examination for the Fellowship of the Royal College of Surgeons, which was commenced on the 29th ult., when twenty-eight candidates presented themselves, the following questions on Pathology, Therapeutics, and Surgery were submitted to them, which they were required to answer between 10 and 2 o'clock, viz.:—1. Describe the course, diagnosis, and pathology of the Malignant Diseases of the Testicle. State the treatment. 2. Describe the processes by which an Aneurism may be cured spontaneously, and the surgical methods by which a cure can be brought about. 3. Describe the immediate and remote effects which may follow an Injury to the Spinal Cord in its several regions. 4. Discuss the differential diagnosis and surgical treatment of Ovarian Tumours.

The list of successful candidates cannot be published until confirmed by the Council at its next meeting.

An Elephantine Dose.—One of Barnum's secular elephants, "Allah," was attacked while in Cincinnati. Dr. Bowler, V.S., was called in, and relates his experience in the *Journal of Comparative Medicine.* The diagnosis having been made, he administered the following liberal dose:—Lard, 8 lbs.; linseed oil, 1 gallon; tincture of opium, 1 pint; syrup, 1 quart. The lard and oil were first mixed, and the other ingredients then added. The trunk was raised above the head, and the mixture poured down the throat through a large metal tube. The animal recovered.—*New York Medical Record,* May 17th.

COMMUNICATIONS RECEIVED—

THE REGISTRAR-GENERAL, Edinburgh; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; THE SANITARY COMMISSIONER OF THE PUNJAB, Lahore; Mr. M. D. MAKUNA, Pontypridd; THE SECRETARY OF THE ROYAL INSTITUTION, London; Mr. T. M. STONE, Wimbledon; Dr. HENRY BELCHER, Brighton; Dr. WYNN WESTCOTT, London; Dr. SHELLY, Hertford; Dr. DONKIN, London; Mr. M. BECHER, London; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; Dr. YARROW, London; Dr. BAINES, London; OUR VIENNA CORRESPONDENT; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Dr. TOSSWILL, Exeter; THE SECRETARY OF THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY, London; THE SECRETARY OF THE BRITISH MEDICAL ASSOCIATION, London; THE SECRETARY OF THE ROYAL COLLEGE OF PHYSICIANS, London; Dr. JAMES ANDERSON, London; Messrs. A. & R. SCOTT, Glasgow; THE SECRETARY OF THE NORTH LONDON HOSPITAL, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; Dr. COCKLE, London; THE HON. SECRETARIES OF THE ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, London; THE HON. SECRETARIES OF THE EPIDEMIO

LOGICAL SOCIETY OF LONDON; Mr. WYNTER BLYTH, London; Dr. HERMAN, London; Mr. LAWSON TAIT, Birmingham; THE ASSISTANT SECRETARY OF THE ROYAL MICROSCOPICAL SOCIETY OF LONDON; Mr. G. STILLINGFLEET JOHNSON, London; Mr. G. HOPKINS, London.

BOOKS RECEIVED—

Notes on Operations on the Eye, by Ram Kishen, L.M.S.—Bulletins et Mémoirs de la Société Médicale des Hôpitaux de Paris—Clinical Demonstrations on Ophthalmic Subjects, by J. R. Wolfe, M.D., F.R.C.S.—Recherches Expérimentales sur la rage, par M. P. Gibier—Henfrey's Elementary Course of Botany. 4th Edition—Annual Report of the Cincinnati Hospital for 1883—Scarlatina Puerperalis, by Samuel C. Busey, M.D.—Die Verhütung der Augenentzundung der Neugeborenen, von Carl S. F. Credé—Report of the West Riding Pauper Lunatic Asylum for 1883—State Board of Health of New York; Report on the Drainage of the Tonawanda and Oakorchard Swamps; On the Village of Bath; System of Sewerage for the Village of Peckskill; Plan of Sewerage for the Village of Malone; On the Epidemic of Enteric Fever in Port Jervis.—Death and Disease behind the Counter, by Thomas Sutherst.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular — Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynakologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—The Therapeutic Gazette—National Anti-Compulsory Vaccination Reporter—The City Press, May 28th—Ophthalmic Review—The Journal of Nervous and Mental Disease—Canada Medical and Surgical Journal—The Birmingham Medical Review —Archives Générales de Médecine — The Analyst — Edinburgh Medical Journal — The Australian Medical Journal — Friendly Greetings—The Girls' Own Paper—The Sunday at Home—The Leisure Hour—Boys' Own Paper—The Veterinarian—The Glasgow Medical Journal—Centralblatt für Therapie—The Dublin Journal of Medical Science.

APPOINTMENTS FOR THE WEEK.

Friday, June 6 (this day).

Operations at St. George's (ophthalmic operations), 1¼ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Edward Albert Schäfer, F.R.S., "The Analysis of Voluntary Muscular Action."

ROYAL INSTITUTION, 8 p.m.—Mr. Willoughby Smith, "Electric Induction Experiments."

Saturday, June 7.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

ROYAL INSTITUTION, 3 p.m.—Professor Bonney, "Microscopical Geology."

Monday, June 9.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m.—Casual Communications by Messrs. W. St. George Elliott, W. E. Harding, David Hepburn, &c. Mr. Oakley Coles will read a Paper on "The Maintenance of Health amongst the Practitioners of Dental Surgery."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Edward Albert Schäfer, F.R.S., "The Mechanism of Absorption."

Tuesday, June 10.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, 8 p.m.—The following Papers will be read:—A. W. Howitt, Esq., F.G.S., and the Rev. L. Fison, M.A., "The Deme and the Horde;" C. A. Gollmer, Esq., "African Symbolic Language;" S. M. Curl, Esq., M.D., "Phœnician Intercourse with Polynesia."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 p.m. — Mr. Arbuthnot Lane, "Three Forms of Spinal Deformity;" Dr. W. H. Broadbent, "On a Particular Form of Amnesia—Loss of Nouns;" Dr. Sharkey, "Embolism of the Right Middle Cerebral Artery, producing Left Hemiplegia and Hemianæsthesia—Absorption of a large portion of the Right Hemisphere—Death seven years later;" Dr. Matthews Duncan, "On Albuminaria with Parametritis;" Dr. Stephen Mackenzie, "Observations on the Weight of the Thyroid Body."

Wednesday, June 11.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 p.m.—The following Papers will be read:—H. Franklin Parsons, M.D., "Some Observations on the Etiology of Diphtheria;" John Wortabet, M.D., "Epidemiological Notes during the Autumn of 1883 in Beyrout, Syria." Office-bearers for the ensuing year will be nominated.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Professor Sir Henry Thompson will deliver his First Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m.—The following Papers will be read:—Dr. J. Anthony, on "The Camera Lucida;" G. F. Dowdeswell, on "Some Phenomena of the Red Blood Corpuscles of Vertebrates, with reference to the Occurrence of Bacteria normally in Living Animals;" C. D. Ahrens, on "A New Polarizing Prism;" G. F. Dowdeswell, on "The Constancy of Specific Morphological Characters in the Bacteria."

Thursday, June 12.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, June 13.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Professor Sir Henry Thompson will deliver his Second Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

ROYAL INSTITUTION, 8 p.m.—Prof. Dewar, "Researches on Liquefied Gases."

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MEDICAL TIMES
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PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

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(Continued from page 762.)

Hospital Gangrene.

As an associate of scurvy, this has been long the subject of medical observation in India. The writings of Trotter are full of evidence of the fact that, for a considerable time after the introduction of lime-juice had freed the seamen of our Royal Navy from typical scorbutus, the men suffered greatly from sloughing ulcers—produced by slight causes, such as the contact of a drop of hot pitch with the skin—which were evidently of scorbutic origin. As I have already stated, a scorbutic tendency is most extensively prevalent among the native population of India, and most especially in the provinces of Behar and Scinde; and scorbutus has repeatedly attacked our European-Indian forces in sieges, as at Lucknow, and in campaigns, as in the first Burmese war, when fresh vegetables and flesh meat became scarce. The writings of Hennen and other military surgeons show that malignant ulcer, of scorbutic origin, also committed great ravages among our troops in the Peninsular war. And consequently, unless the greatest care be taken to supply prisoners and detached parties of European and native troops with an adequate and sufficiently varied diet, scorbutus in its full development, and even more dangerously in its masked forms — malignant phagedænic ulcer, dysentery, &c.—may be expected to prevail among them. In 1818 Dr. J. Adam observed an outbreak of "an epidemic malignant ulcer, or hospital gangrene," which occurred in a body of native troops belonging to the Nerbudda Field Force. Only one European soldier was attacked, in consequence of the application of a blister to the side. Here the ulceration was moderate and recovery speedy. A boil, or small ulcer, consequent upon a scratch or bruise, would cease to discharge pus; its granulations would become pale and slough rapidly, with an acute burning pain and extreme sensibility of the surrounding parts. Fever and great constitutional distress would set in, and the destruction of parts would extend equally in all directions, passing deeply into the cellular tissue and muscles. The colour of the sphacelated parts was a dusky grey. There was very little discharge. It appeared as if sudden death had seized the parts. Bone would be laid bare; there was great loss of soft parts, which had to be removed by scissors, and there was a tendency to alarming hæmorrhage. The general symptoms at this stage "were such as mark a high degree of the remittent fever of the natives." "In no instance did death ensue." "The disease resembled exactly what has been described to occur in the hospital gangrene of Europe." Dr. Adam observed that, on

this occasion, the native soldiers suffered greatly, while the European troops were almost free from the scourge, because the latter were well fed and clothed, while the former were very wretchedly accommodated and indifferently clad and nourished, not only the poor syces and grass-cutters, but also the higher classes of native soldiers depriving themselves, with a view to saving, of many essentials of comfort, more especially in the field, where they are most required.[14]

In 1824, Mr. J. Leslie witnessed an outbreak of "gangrenous ulcer" in the 65th Regiment of Native Infantry at Prince of Wales's Island.[15] The disease, of which a very careful description is given, was hospital gangrene. There were 281 cases in eight months; of these 40 were fatal. The limb was amputated in nine cases, four of which were fatal. Among the ascertained causes were an extremely meagre diet of rice and vegetables, usually of very inferior quality, insufficient covering, and overcrowding.

In June, 1826, Superintending Surgeon Longstaff reported[16] that "intractable ulcers, of an erysipelatous and sloughing character," had long been numerous in the hospitals at Benares and at others in that division. Common boils, on being laid open or bursting spontaneously, immediately degenerated into phagedænic ulcers. This tendency had existed for more than a twelvemouth.

Mr. J. C. Geddes gave[17] a very graphic account of "malignant ulcer and hospital gangrene," as he observed it, in the early part of 1827, at Prince of Wales's Island, where, as we have stated above, this malady prevailed among the Sepoys in 1824. The disease was most severe and fatal. A common sympathetic bubo often degenerated into a phagedænic ulcer, occupying the whole extent of the groin, spreading to and laying bare the abdominal muscles, and then exposing the peritonæum; extending down the thigh and laying bare the artery, which was seen pulsating, but which displayed extraordinary power of resisting the ulcerative process, lying untouched in a mass of gangrenous matter until the patient sank exhausted. Amputation was freely resorted to. Mr. Geddes and Dr. Grant amputated 35 limbs, besides toes and fingers. Exactly half of those so treated recovered.

Some years later there was great prevalence of phagedænic ulceration of a most severe and obstinate character among our native troops in Arracan, when the constitutions of the men had become broken by Arracan remittent fever. (*Vide supra*, p. 737, vol. ii. for 1883.)

In 1843, the 4th Regiment Madras Native Infantry suffered considerably from sloughing ulcers at Singapore. Ephemeral and quotidian fevers and rheumatism were prevalent. Phagedænic ulcers began to appear in the month of September, and continued to increase up to the end of November, when the cases became less numerous and severe. The worst description of ulcer was generally situated about the lower third of the leg, or on the ankle and foot, and usually proceeded from some slight injury or from the pustules of itch. The expression was anxious, the tongue white and flabby, and the lower limbs frequently somewhat œdematous. Several patients died, "either sinking from the effects of constitutional irritation, or being reduced to a state of excessive debility, were carried off by colliquative diarrhœa after the sloughs had separated."[18]

Kenneth Mackinnon remarked that the hospital gangrene which appeared among the wounded after the battles on the Sutlej, in the first Sikh campaign, offered a fine illustration of the manner in which the atmosphere may be poisoned by overcrowding and foul discharges not carefully removed. "The military surgeon," he said, "should not overlook the fact that the canvas of tents is a substance to which impure effluvia are likely to attach themselves." In the next campaign things were better managed, and the disease did not appear.

At Chittoor (Southern Division of Arcot, Madras Presidency) sloughing ulceration prevailed to a great extent at particular periods, as in the years 1830, 1833, 1837, and 1838. It was supposed to arise from the causes which produce fever. "*The inhabitants of the village were as liable to this form of ulceration as the prisoners, and were affected precisely at the same periods.*" I emphasise this fact, because, when we place it beside the fact which will presently be noticed, that sloughing phagedæna prevailed extensively in the district of Indore, Bombay Presidency, it appears nearly certain that this malady does, to say the least occasionally, assume an epidemic or widely spreading endemic character. In the jail, ulcers formed a large proportion of the admissions. Many of the sores sloughed. In all these cases the general health was more or less disordered, many of the patients had occasional paroxysms of fever, others suffered from diarrhœa, and the tongue was generally thickly coated with yellow fur. In cases where the constitution had been severely injured by repeated attacks of fever, the ulcers, having degenerated into large sores, became covered with a thick slough of a dirty white colour, attached to an irritable bleeding surface, which, on falling off, exposed the muscles, and sometimes laid bare the bones of the leg (the lower extremities only being attacked) to a considerable extent. In these severe cases diarrhœa was generally present.[19]

In and about the year 1833, hospital gangrene was very prevalent among native prisoners in Bengal; the exciting cause being frequently irritation by the ankle-irons, before the leather *mozas* were brought into general use as a protection to the skin. This, as well as the attendant dysentery, was attributed to scurvy. A valuable chapter on this subject will be found in James Hutchinson's "Observations on the General and Medical Management of Indian Jails, &c.," 1845. That and other old records of scurvy and gangrene in Indian jails deserve the fullest attention of medical officers at present serving in the East, seeing that the returns for 1881 show that 405 cases of scorbutus, and 115 of "gangrene and phagedæna," occurred among the jail population in that year. The deaths from scurvy were only 9; those from gangrene and phagedæna, 48, of which 31 out of 45 cases occurred in the Andamans and Nicobars; and that there were, in 1882, 445 cases, with 13 deaths, of scorbutus, and 31 cases of "gangrene and phagedæna," with 13 deaths, among the prisoners—strong evidence that the old evil is always ready to break out afresh. My friend, Dr. Thomas W. Wilson, tells me that, while this disease was one of the chief scourges of Bengal native prisons, the late Dr. Wilkie, I think of Dinagepore, took him into his jail hospital, where, to his utter consternation, he being then inexperienced in Indian disease, upwards of a score of prisoners who had undergone amputation stood in a row, leaning upon crutches. In 1836, Mr. Chapman, of Purmah, wrote to the Medical and Physical Society of Calcutta upon the great prevalence of sloughing ulcers in his jail. The disease was clearly hospital gangrene.[20]

[14] *Cal. Med. and Phys. Trans.*, vol. iii., p. 132.
[15] *Ibid.*, p. 151.
[16] *Ibid.*, p. 418.
[17] *Cal. Med. and Phys. Trans.*, vol. vi., p. 147.
[18] "Madras Medical Topographical Reports, Eastern Settlements," p. 333.
[19] "Madras Medical Topographical Reports, Centre Division," p. 56.
[20] *Ind. Jour. of Med. and Phys. Science*, vol. i., N.S., p. 677.

Kenneth Mackinnon wrote[21] that he once witnessed a very severe invasion of hospital gangrene in the jail hospital at Tirhoot, at a time when the weather was extremely close and sultry after a rainy season, during which the fall of rain had been unusually copious. The hospital was surrounded by stagnant water. The destructive process was not accompanied by much surrounding inflammatory action. It was what he might call an eating away of the textures, with highly fœtid discharge from the sores. The countenance had a sodden look. The conjunctiva tinged, perhaps not with bile, but with diseased blood.

Dr. J. P. Walker reported, in 1856,[22] that hospital gangrene was for some years a terrible pest in the Agra Central Prison, "affecting alike the weak and the strong, the sick and the healthy, the aged and the young, those who had spent years in prison and those but recently imprisoned. In 1853, when the total deaths, from all causes, were as 5·2 per cent. of the average strength, no less than 23·9 per cent., or nearly one-fourth of the whole mortality, was caused by 41 fatal cases of hospital gangrene. Everything was in vain tried as a prophylactic, and as a remedy; hygienic measures on a grand scale, resulting in the most scrupulous cleanliness, were found of no avail. The affected were isolated, and removed to the country for change of air, and the airy upper-storied rooms of the lofty gateways of the royal gardens at Secundra were converted into a hospital. Every plan of treatment —medical, surgical, and dietetic—recommended in standard medical works, and everything that theory suggested, was tried in vain, the pest remained unstayed; and, in a large number of the worst cases, death alone arrested the fearful ravages of the disease, and soothed the agonised tortures of the patients, the very remembrance of which is painful."[23]

In and about February, 1838, it was reported[24] that, at Agra, a scorbutic taint existed among the Sepoys; and that, whenever the skin got broken in any way, a malignant ulcer formed. At the same time, hospital gangrene appeared among the Sepoys at Saugor, and the disease broke out in Brett's Surgical Hospital in Calcutta. When I joined the service ten years later, in 1848, nothing was heard of this disease, either in Sepoy lines or in native jails, *in Lower Bengal*. Doubtless, in that decennium, sanitation had done much for both soldiers and criminals. Nevertheless, our experience of hospital gangrene in India did not then come to an end, as is shown in Dr. J. P. Walker's "Agra Report" cited above, and in the Jail Statistics of 1881 and 1882, which I have quoted.

In 1881, "gangrene and phagedæna" did not occur very frequently in the native army; but, wherever it appeared, the type of the malady was severe. In Bengal, there were four cases with one death; in Bombay, three cases with two deaths; and in Madras, five cases with one death. In 1882, there were 4 cases, of which 2 were fatal, in the Bengal Presidency, and 2 cases (1 fatal) elsewhere.

The old Chandney Native Hospital, Calcutta, was ill-situated in Durrumtollah. Some 45 years ago, sloughing was so destructive there as to lead the authorities to erect the Medical College Hospital, which was originally intended to relieve the other of its medical cases. The new building ought to have been reserved for surgical cases, for the old one continued to be infested with hospital gangrene.

In 1854 Dr. K. Mackinnon alluded to the fact that wounds made in operating there were apt to take on an erysipelatous and sloughing action, especially during the rains. An investigation of the history of this place convinced me that, as far as I could trace back, *hospital gangrene had been endemic in this building*. That is to say—while it frequently happened that compound fractures, amputations, lithotomy cases, &c., all of which were very numerous then, often recovered as well and as rapidly as they could do in any hospital (the only drawback being that the scalp-wounds, which were extremely common, generally took on an erysipelatous character, ranging from a slight evanescent blush of inflammation down to most extensive sphacelus); on the other hand, suddenly, as it would appear from some change of wind or weather, the surgeon, on paying his morning or evening visit, found that nearly every unhealed surface—ulcers, stumps, wounds which, at the last visit, only presented a thin line of healthy granulation—had become overspread with a thick tenacious diphtheria-like exudation, betokening gangrene. Some of the least promising of these cases did remarkably well, but a large proportion were fatal. I obtained from my friend, Dr. Herbert Baillie, the statistics of the gangrene which prevailed there for a period of four years and a half—1855-59. There was a total of 519 surgical operations, in 102 of which the issue was fatal. Gangrene attacked 96 of the 519 persons operated on, and 70, who were attacked with gangrene, died. This table did not include the many cases in which gangrene attacked ulcers and accidental wounds.

In the winter of 1859, I was requested by my friend, the late Dr. Allan Webb, surgeon to the institution, to visit its wards daily for a month, and to report the result for the information of the governors. Dr. Webb informed me that what he considered to be true hospital gangrene had not made its appearance in his ward since the year 1855; but that, since he had held charge, there had been scarcely any time at which he had not found reason to fear that any case of wound or injury, whether slight or severe, or any patient upon whom a surgical operation had been performed, however favourable in appearance all concurrent circumstances might be, was liable suddenly to be attacked with mortification. On my first visit (on the 29th January), I saw 31 cases of wound or ulcer. Seven of these patients had undergone surgical operations. In six of the 31 cases, the wound or ulcer had a more or less unhealthy character. The nature of these unfavourable cases, taken together with what I had learnt from Dr. Webb, prepared me to believe that, while the generality of wounds did well, many were attended with unhealthy inflammation, tending to gangrene, for which the nature and severity of the accidents or operations were insufficient to account. On the evening of the 1st of February, my attention was drawn by Dr. Webb to a sudden and remarkable change for the worse which came over several of the patients suffering from wounds. They became feverish, or had distinct attacks of intermittent or remittent fever, their wounds gaped, were raised and flabby at the edges, or began at once to slough. These portentous changes were at first most observable in certain cases of flap wound. Several deaths followed this outbreak, and several cases of rather extensive gangrene did well, although their recovery was not rapid. The case of a native man who had been operated upon for strangulated hernia particularly struck me; there was a clean firm linear cicatrix which would have been perfect had not one bright red granulation, like a little carnelian button, remained at the middle of its course. Just as the man was about to be discharged, there was an appearance as if the surface of the granulation had been delicately touched with cigar ash, it being coated with a fine greyish-white film. Then most destructive gangrene rapidly set in and spread.

The native hospital and its most insanitary neighbourhood were afterwards improved, but the place was

[21] *Ind. An. Med. Sc.*, No. 3, p. 178.
[22] *Ind. An. of Med. Sc.*, No. 9, p. 83.
[23] The mode of treatment successfully adopted by Dr. Walker will be cited below.
[24] *Ibid.*, N. S., vol. iii., p. 177.

at last condemned and disused, the Mayo Hospital having been built for its patients.

Assistant Surgeon R. N. Roy, published[25] a report of an outbreak of hospital gangrene which occurred in the Allyghur Dispensary in March, 1874. Whenever the hospital accommodation is close and bad in India, and the patients are the subjects of scorbutic or malarious cachexia, hospital gangrene may be anticipated.

We, however, have evidence that disease of this character may suddenly make its appearance and become very prevalent in a district apart from the influence of poor food and overcrowding. Dr. T. Beaumont reported[26] that sloughing phagedæna was almost unknown in Indore until the rainy season of 1871, when a few cases were seen. During the rainy season, and up to the end of 1872, it became so very prevalent that it was feared it was about to become established as an endemic disease. In the five months ending the 31st December, 315 cases came under observation; of these 51 proved fatal. Any part of the body was liable, usually the leg, foot, or ankle. In all cases it attacked some pre-existing breach of surface, as a slight abrasion from an ill-fitting shoe. There was nothing exceptional in the season or food supply.

Prophylaxis and Treatment.

As it has been found in the very large majority of outbreaks of hospital gangrene that some or all of the following causes have been at work: Scorbutus or what amounts to the same thing, poverty, an innutritious staple of diet, such as the new common *dasee* rice of Bengal; a diet not sufficiently full and varied, and wanting in flesh, fish, oil and antiscorbutic fruits and vegetables, over-crowding, especially in hospitals where surgical and medical cases are not separated, insanitary *entourage*, exposure to vicissitudes of temperature, over-work or fatigue, all within the influence of marsh miasma—our chief means of prophylaxis lie clearly before us. With prisoners, abrasion by the leg irons; and with soldiers, chafing by shoes and accoutrements are especially to be avoided, and the, at first, trivial sores thus caused should always be carefully treated. I think that the histories show that recourse to amputation is not to be wholly put aside:—I need scarcely add that I should not have tried it until all other means had been tested and had failed. In the Tirhoot Jail hospital, Kenneth Mackinnon "found no local application do good but the pure undiluted nitric acid, applied on lint, making the parts smoke, and literally burning out the whole diseased surface." So, also, in the Indore outbreak of 1871, Dr. Beaumont found no treatment so successful as the thorough application of nitric acid. My friend, the late Dr. J. Sutherland, used *irrigation* with marked success;[27] and Dr. J. P. Walker places the highest value upon the local application of burnt alum and of an ointment composed of powdered alum (not burnt), catechu, balot (extract of *Berberis lycium*), opium, common bazar soap, and water.[28]

(*To be continued.*)

Solidified Creosote.—In its application to carious teeth, creosote is often inconvenient in consequence of its fluidity producing ill effects upon the mucous membrane of the mouth. This may be obviated by giving to it a gelatinous solidity by adding ten parts of collodion to fifteen of creosote. This, besides being more manageable than liquid creosote, also closes up the orifice in the tooth, preventing the accession of the air to the dental nerve.—*Progrès Médical*, April 19th.

[25] *Indian Medical Gazette* for November, 1874.
[26] *Indian Medical Gazette*, vol. viii, p. 318.
[27] *Ind. An. Med. Sc.*, No. 8, p. 470.
[28] For minute directions as to the preparation of these medicaments, *vide Ind. An. Med. Sc.*, No. 9., pp. 84, 85.

AN EXAMINATION OF THE THEORY OF AËRIAL DISSEMINATION OF SMALL-POX INFECTION.

By MONTAGUE D. MAKUNA,
Late Medical Superintendent of Fulham Small-pox Hospital.

(Concluded from page 766).

The Year 1880.

This was not an eventful year, as the small-pox epidemic was on the decline. There were 475 deaths from it in London, of which 3 were in Kensington, 49 in Fulham, including 48 in Fulham Hospital, and 1 in Chelsea. The Metropolitan Asylums Board Hospitals admitted 1,916 cases, of which 46 were from Fulham, 40 from Kensington, and 17 from Chelsea. Highgate Small-pox Hospital admitted 1 from Fulham O. S. A., and 1 from Kensington O. S. A. The Health Officers reported 51 in Fulham, 51 in Kensington, and 8 in Chelsea as the incidence of the disease.

January.—Fulham Hospital admitted 45 acute cases, viz., 5 from Fulham, 4 from Kensington, 4 from Chelsea, 20 from Islington, 5 from St. Pancras, 2 from Wandsworth, 2 from Marylebone, and 1 each from Paddington, Strand, and St. George's. The known incidence of disease was 6 cases in Fulham, 8 in Kensington, and 4 in Chelsea. The weekly number of cases under treatment during the five weeks ending 31st January, was 24, 32, 31, 36, and 33.

Fulham Cases.—A labourer from 56, Farm Lane, C. C., infected house. (2) A child from 17, Fane Street, ½ mile R., on the 23rd to Fulham Hospital. (3) A female from 19, Chesson Road, ½ mile R., on the 29th. (4) A labourer from 1, Elizabeth Place, ¾ mile R., on the 29th, from a fatal concealed case in Hilmer Street. (5) A labourer from 36, Ancill Street, 1 mile R., on the 1st, from a concealed case. (6) A case treated at Vanstone Place, ½ mile R., reported on the 28th.

Kensington Cases.—(1) A child from 2, Finborough Road, C. C., on the 23rd. She came from Paris on the 16th. (2) A domestic from 33, Coleherne Road, ½ mile R., on the 6th. (3) A domestic from 24, Harcourt Terrace, ½ mile R., on the 13th. She came from Yorkshire only a week before. (4) A newspaper boy from 141, Earl's Court Road, ¾ mile R., on the 27th. By visiting in Child's Place, where there were cases of small-pox. (5 to 7) Three in Child's Place, ¾ mile R., caused by concealed cases; 2 at 14, reported on the 20th and 22nd; and 1 at 13, on the 28th. (8) A boy in Goldborne Road, O. S. A.

Chelsea Cases.—(1 and 2) Two children from 39, Slaidburn Street, ¾ mile R., on the 8th and 24th. (3) One from 94, Arthur Street, 1 mile R., on the 23rd. (4) One from Leader Street, O. S. A.

February.—Fulham Hospital admitted 62 acute cases, viz., 18 from Fulham, 12 from Kensington, 4 from Chelsea, 15 from St. Pancras, 4 from St. George's, 6 from Wandsworth, 2 from Islington, and 1 from St. Giles's. The known incidence of disease was 18 in Fulham, 15 in Kensington, and 4 in Chelsea. The weekly number of cases under treatment was 40, 54, 50, and 53.

Fulham Cases.—(1) A domestic from 14, Farm Lane, C.C., on the 14th. She was sent home ill from the place of her service; she took it from 5, Langston-place, where a wake had been held on a fatal case. (2) A plasterer from 3, Rickett Street, C.C., on the 17th. A concealed case. (3) A charwoman from 6, Rickett Street, C.C., on the 20th. From a concealed case. These cases were discovered by house to house visitation. (4 and 5) Two sisters from 4, Hermitage Villas, ½ mile R., on

the 1st and 16th. (6) A labourer from 17, Fane Street, ½ mile R., on the 4th. Infected house. (7 to 11) A domestic from 5, Rear Gate, ½ mile R., on the 13th. Sent home ill from 8, Seagrove Road, an infected house and a baby farm. She gave it to the lodgers in the house, on the 22nd, 24th and 27th. (12) A tailor from 5, Langston Place, ½ mile R., on the 14th. The house in which a wake was held over a fatal case. (13 and 14) A carpenter from 31, Cornwall Street, ½ mile R., on the 25th. From a house opposite. (15) A fitter from 3, Edward's Cottages, ¾ mile R., on the 15th. By visiting friends in Church Street, Battersea. (16) A labourer from 20, Anselm Road, ¾ mile R., on the 19th. (17) A publican from 13, Star Lane, ¾ mile R., on the 27th. From a concealed case at home. (18) A navvy from 8, Kennett Road, 1 mile R., on the 14th. (19) A private case was treated in Vaunston Place, ½ mile R., reported on the 14th.

Kensington Cases.—(1) A female from 104, Adrian Terrace, C.C., on the 14th. (2) A painter from 36, Ifield Road, C.C., on the 21st. A fatal case occurred in the house in October last. (3) A painter from 5, South Street, C.C., on the 23rd. (4) A sick-visitor from 15, Redcliffe Gardens, ⅛ mile R., on the 3rd. Believed to have caught it at a public concert. (5) A domestic from 20, Coleherne Road, ½ mile R., on the 14th. (6) A carpenter from 18, Kempsford Gardens, ½ mile R., on the 23rd. (7) A labourer from 3, North Row, ¾ mile R., on the 3rd. By visiting infected houses either in Child's Place, or Hilmer Street, Fulham. (8 and 9) A mother and child from 18, Ashley Cottages, ¾ mile R., on the 9th. (10) A domestic from 38, West Cromwell Road, 1 mile R., on the 21st. From the infected clothing of her companion who was a patient in July last. (11 to 13) Two in 13 and one in 14, Child's Place, ¾ mile R. Infected houses. (14) A servant from Industrial School, suffering from measles took the disease in the hospital. (15 and 16) One each from Stamford Street, and Notting Hill Square, O.S.A.

Chelsea Cases.—(1) A labourer from 63, Blantyre Street, ¾ mile R., on the 10th. By visiting his father at 21, Seagrove Road. (2) A dressmaker from 10, Riley Street, ¾ mile R., on the 25th. (3) A domestic from 34, Church Street. Only two days at the address. (4) One from Elm Park Gardens O. S. A.

March.—Fulham Hospital admitted 23 acute cases, viz., 8 from Fulham, 6 from Kensington, 3 from St. George's, 2 from Strand, 1 from St. Giles's, 1 from Wandsworth, 1 from Paddington, and 1 from Westminster. The Medical Officers of Health reported 10 in Fulham, 7 in Kensington, and 1 in Chelsea. The weekly number of cases under treatment was 52, 44, 33 and 25.

Fulham Cases.—(1) A horse dealer from 6, Roxby Place, C. C., on the 6th. From a concealed case. (2) A dressmaker from 5, Little Stamford Street, ½ mile R., on the 2nd. Took it from 5, Rear Gate, where there have been cases. (3 to 6) Four from 19, Chesson Road, ¾ mile R., on the 4th, 5th, and 2 on the 21st. A case from the same house in January. (7) A baker from Richmond Place, ½ mile R., on the 11th. (8) One from 61, May Street, ¾ mile R., on the 27th. (9) A private case treated in Anselm Road, ¾ mile R.

Kensington Cases.—(1) A milkman from 15, Redcliffe Mews, ½ mile R., on the 3rd. (2) A domestic from 24, Eardley Crescent, ½ mile R., on the 5th. (3) A domestic from 5, Redcliffe Square, ½ mile R., on the 21st. (4 to 6) Three from O. S. A., viz., one each from Kensington Place, Stamford Road, and 109, High Street.

April.—Fulham Hospital admitted 27 acute cases, viz., 2 from Fulham, 6 from St. George's, and 3 from St. Giles's. The weekly number of cases under treatment was 18, 18, 17, 16 and 15. The three Fulham cases, including desperate case, occurred in O. S. A. The small-pox epidemic was on the decline in the metropolis during the year, and it followed the same general law in the S. A., for although we admitted 45, 62 and 23 acute cases in January, February and March respectively, it had no influence on the S. A. through air. It cannot be said that there were no susceptible individuals present there, because in the following year, when Mr. Power made his investigations, S. A. was specially infected as in the years 1878 and 1879.

May.—Fulham Hospital admitted 27 acute cases, viz., 2 from Fulham, 3 from Kensington, 1 from Chelsea, 2 from Paddington, 8 from Islington, and 7 from St. Pancras. The weekly number of cases under treatment was 11, 11, 16, and 23. The two Fulham cases were from Clarence Villas, 1 mile R., on the 27th. The Kensington and Chelsea cases were from O. S. A.

June.—Fulham Hospital admitted 26 acute cases, viz., 5 from Fulham, 2 from Kensington, 9 from Islington, 3 from St. George's, 2 from St. Giles's, 2 from Paddington, 2 from Marylebone, and 1 from St. Pancras. The weekly number of cases under treatment was 20, 24, 29, and 26.

Fulham Cases.—(1) One from Dawes Lane, ¾ mile R., on the 4th. (2) One from Model Buildings, 1 mile R., on the 29th. Infected house. (3) One from Grove Terrace, 1 mile R., on the 17th. (4 and 5) Two from Goldhawk Road, and West London Hospital, O. S. A. The two Kensington cases were, a domestic from 7, Bolton Gardens, ½ mile R., on the 12th, and one from Silchester Terrace, O. S.A.

July.—Fulham Hospital admitted 16 acute cases, viz., 3 from Fulham, 2 from Kensington, 8 from Islington, 1 from St. George's, 1 from Paddington, and 1 from St. Pancras. The weekly number of cases under treatment was 19, 15, 17, 17, and 14.

Fulham Cases.—(1) One from 32, Dieppe Street, 1 mile R., on the 3rd. (2) One from 4, Grove Terrace, ¾ mile R., on the 17th. (3) One from Portland Street, O. S. A.

Kensington Cases.—(1) A domestic from 7, Redcliffe Square, ½ mile R., on the 23rd. (2) A pupil teacher from 338, Fulham Road, ½ mile R., on the 12th. (3) A private case at 78, Cromwell Road, 1 mile R., reported on the 17th. He contracted the disease at Folkestone.

August.—Fulham Hospital admitted 10 acute cases, viz., 1 from Fulham, Elizabeth Cottage, ¾ mile R., 1 from Kensington, O. S. A., 4 from Islington, 2 from St. Pancras, 1 from Paddington, and 1 from St. Giles's. A private case was treated at 3, Eardley Crescent, ½ mile R. The weekly number of cases under treatment was 11, 12, 11, and 10.

September.—Fulham Hospital admitted 14 cases, viz., 1 from Fulham, O. S. A., 6 from Kensington, 1 from St. George's, 1 from Paddington, 1 from Marylebone, 2 from Islington, and 2 from St. Pancras. The weekly number of cases under treatment was 12, 12, 14, 18, and 10.

Kensington Cases.—(1) A domestic from 6, Redcliffe Gardens, ½ mile R., was sent home ill to 13, South Place, C. C., on the 30th. The following day she went to St. George's Hospital as an out-door patient, and on the 1st drove down in a cab to the workhouse, from which place she was removed to the hospital. (2 and 3) Two from 13, South Street, C. C., the house where the above case went home ill, one on the 13th, and the other walked to the hospital on the 15th. (4) A domestic from 3, Cathcart Road, ½ mile R., on the 11th. (5) A domestic from 1, Lily Terrace, 1 mile R., on the 8th. She contracted it in Paris, nursing her sister. (7) One from Edenham Street, O. S. A.

October.—Fulham Hospital admitted 3 acute cases, viz., 2 from Kensington, O. S. A., and 1 from Islington.

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The weekly number of cases under treatment was 6, 9, 7, and 7.

November.—Fulham Hospital admitted 5 acute cases, viz., 1 from Fulham, O. S. A., 1 from Kensington (330, Fulham Road, ½ mile R.), 2 from St. George's and 1 from Marylebone. The weekly number of cases under treatment was 4, 3, 4, and 3.

December.—Fulham Hospital admitted 15 acute cases, viz., 10 from Islington, 2 from Holborn, 1 each from St. George's, St. Pancras, and Strand. There were 55 convalescents transferred from other hospitals. A case from Fulham, O. S. A., was sent to Stockwell Hospital. The weekly number of cases under treatment was 1, 1, 44, 38, and 63.

With the close of the year 1880 ends the history of the spread of small-pox in Kensington, Fulham, and Chelsea, between which three districts Fulham Hospital is situated, previous to Mr. Power's investigations. It has not been my intention to comment on his observations during the following three months, viz., January, February, and March, 1881. From my personal investigations during the years 1877–80, I had formed definite ideas how small-pox spreads in a commonplace manner, whatever mode it may be—through exposure of the sick, want of isolation, washing infected clothing in laundries, concealment of cases, mismanagement of hospitals, &c., and this has been abundantly testified in the narration of the history year after year. Those who have carefully perused Mr. Power's Report (Supplement to the "Tenth Annual Report of the Local Government Board, pages 302–358), will agree with me when I say that he bases his theory on assumptions and general statements—mere negation of the knowledge of the spread of the disease. I have clearly demonstrated that the incidence of the disease in Kensington, Fulham, and Chelsea, separately, is quite a different thing from admissions to the Metropolitan Asylums Board Hospitals. Again, the calculation of the incidence in the C. C. and surrounding rings, taking the houses collectively in the three districts in the respective areas at certain times, is erroneous; for I have shown that in those months when the disease was most prevalent in the S. A. of Fulham, it was not so in the S. A. of Kensington, and so on, irrespective of multifarious conditions favouring the spread of the disease narrated at the commencement of this paper.

Before I complete this paper I shall briefly notice Mr. Power's conclusions. At page 322, he states :—"It will now be convenient to sum up the results that have, up to this point, been established in the present inquiry. (1) There has been in each epidemic period an excessive incidence of small-pox on houses in the neighbourhood of the hospital as compared with more distant houses in Chelsea, Fulham, and Kensington. (2) The percentage of houses invaded in the neighbourhood of the hospital has become gradually smaller as the distance of the houses from the hospital has increased. This gradation has been very exact and very constant. (3) Houses upon the chief lines of human intercourse with the hospital have not suffered more than houses lying in other directions from the hospital. (4) In point of time, there has been a very marked relation between the varying use of the hospital and the manifestations of excessive small-pox in the neighbourhood. This relation has not shown itself while the use of the hospital has been for convalescents only. (5) The appearance of excessive small-pox in houses around the hospital has never been delayed until the hospital has become full or nearly full. It has been always most remarkable at the time when admissions to the hospital were beginning to increase rapidly. In the succeeding months of active operations, though the use of the hospital may have gone on increasing, the excess of small-pox upon the neighbourhood has habitually become less marked. (6) On comparison of different epidemics, an almost constant ratio is observed between the amount of the hospital operations and the degree of excess of small-pox on the neighbourhood."

In describing the conditions of the population and the houses in the S. A., I have clearly shown how his first three conclusions can be justified without having recourse to the theory of infection. His statement "that gradation has been very exact and very constant" is founded on inexact figures, varying with unequal admissions to metropolitan hospitals, with concealment of cases, private cases, and admissions to Highgate Hospital. As regards the fourth conclusion, it has been noticed that, with increasing use of the hospital, there has been to a certain extent increasing inter-communication between the hospital and the outer world. But there is one thing to be said, and that is, the existence of the disease was never fully ascertained from the beginning and primary cases isolated. We all know that the period of convalescence is not so infectious as the pre-eruptive and vesicular stages of the disease, as has been demonstrated by Panum, of Copenhagen, and Thomas, of Leipzig, and as has been narrated in my paper on "The Pre-eruptive Stage of Small-pox" (see *Medical Times and Gazette*, May and June, 1882). His fifth and sixth conclusions are meant to add force to his calculations based on unsound premisses. Further on he states :—"At the time of the opening of Fulham Hospital four years ago, the Managers of the Metropolitan Asylums Board were nowise unfamiliar with the accusations to which small-pox hospitals are liable, and they applied their experience with great intelligence and forethought. The hospital buildings are, as has been shown, thoroughly well enclosed and separated from populous parts of the district by wide intervals of open ground. Also, they are remote from traffic routes, so that few persons besides those having business at the hospital need to go near it."

It must be evident to every reader of this paper that Mr. Power's complimentary advocacy of the management of the Fulham Hospital is a grievous failure, and *would* lead one to speculation and philosophy. His description of the current doings of the hospital "from the first regulated with the express purpose of avoiding all needless communication with the outside," is, to say the least, a picture without the original after all, and not applicable to the years 1877–80. His last three conclusions are a sequence of his reasoning from the evidence placed before him, viz. :—"(7) The machinery of the hospital administration, with inclusion of defects in that machinery, does not account for the peculiarity of small-pox incidence within the three parishes of Chelsea, Fulham, and Kensington since the establishment of the hospital. (8) There must have been some condition or conditions operating to produce the observed distribution of small-pox around the hospital that have pertained to the hospital as such, and that have been in excess of the condition of small-pox extension as usually recognised."

"To these propositions it should be seen to be a corollary, that every detail in the machinery of the hospital that is within the province of the hospital administration becomes of more importance to the protection of the neighbourhood than ever before. The apprehension that, outside of conditions over which man has control, there may exist other conditions conducing to the spread of small-pox from a hospital to its neighbourhood should be a reason for increased and not for diminished watchfulness in the management of the hospital, in order that such other conditions may be deprived, as far as human foresight can deprive them, of the opportunity of exerting their influence."

"(9) During the present epidemic period, and most probably during former similar periods, there has

arisen in the atmospheric circumstances of the time peculiar facility for the dissemination in an undamaged state of any matter that may have been given off from the hospital."

Like the judge who asks the gentlemen of the jury to leave out of their mind all they might have known and heard of the accused and to give their verdict in strict accordance with the evidence produced before the Bench, Mr. Power, disregarding all the facts bearing on the history of the epidemic in the districts of Fulham, Kensington, and Chelsea because he could not have access to them; disregarding the variety of the conditions of the population in those districts, which tend to the spread of the disease; taking for granted that admissions to Metropolitan Asylums Board Hospitals represented the incidence of the disease; overlooking the mismanagement of the institution; and disregarding the spread of the disease through concealment, laundries, non-isolation, and other commonplace modes — asks us to believe in his statistics, calculations, and arguments, and join him in enunciating the hypothesis of aërial infection, stamped with the authority of the Local Government Board, as a compromise with the agitators against the metropolitan small-pox hospitals, and thus end the *protracted* litigations of the managers of the hospitals. His conclusions might satisfy, as they have satisfied, the legal mind, but that cannot be considered a solution of the scientific problem. Mere negation of facts is not scientific evidence. I have placed before the readers all the facts I can command, and I ask them whether they are prepared to accept Mr. Power's nine conclusions quoted above. I for one look upon his theory and arguments, speculative as they are, as not applicable to the years 1877–80 and contrary to facts and my experience.

SOME OBSERVATIONS ON THE ÆTIOLOGY OF DIPHTHERIA.[1]

By H. FRANKLIN PARSONS, M.D.

(Abstract).

The author sought to bring together the principal known facts concerning the causation of diphtheria together with some of the hypotheses which have been propounded towards the solution of this hitherto unsolved problem, supplementing them by a few observations of his own.

Diphtheria, though the name is modern, has been known from early times. Until the middle of the present century it had, however, for nearly 100 years, been met with in this country only in the form of sporadic cases and limited outbreaks. Appearing in several parts of the country in 1855, the disease rapidly increased until, in 1859, it caused a mortality of 53 per 100,000. The death-rate then declined, with the exception of a second lesser rise in 1863, to 12 per 100,000 in 1867, about which figure it has kept constant ever since, latterly showing a tendency to rise.

A diagram was exhibited in which the curve of the death-rate from diphtheria during the past 30 years was shown and compared with those from scarlet fever and "fever," both of which, after large fluctuations in the first half of the period, had steadily declined in the second half, doubtless owing to the operation of the Public Health Acts, and the growth of public opinion as to the importance of preventive precautions.

[1] Read at the Epidemiological Society, on June 11, 1884.

The Registrar-General's remarks were quoted as to the probably large number of deaths from diphtheria which are returned under the headings of "croup" and "quinsy." The mortality from diphtheria, like that from scarlet fever, is greatest in the fourth quarter of the year, and between the ages of 1 and 5; but, unlike scarlet fever, it is more fatal to females than to males, and in rural districts than in towns. These points were illustrated by tables. Of the modes in which diphtheria may be supposed to originate, infection from a previous case is perhaps the only one which is certainly established. Examples taken from the author's experience were adduced.

The susceptibility of the disease varies greatly among different people, often being great in particular families. The disease is infectious in an early stage, before its characters are pronounced, and also after apparent recovery. The infection also attaches itself with persistence to houses, and may be conveyed by persons living in an infected air, who have not themselves suffered from the disease. The attendance of children at school is a frequent means by which the disease is spread, and there is reason to believe that it may be propagated from cases of sore throat of a mild character, such as frequently are prevalent at the time of diphtheria outbreaks, but which do not themselves present the typical features of the disease.

The infectious nature of the disease is also shown by the good effects which have followed well-considered and carefully executed measures of isolation and disinfection. Cases were quoted showing the length of the incubation period to be from two to five days. The hypotheses of the conveyance of the infection by the wind and by milk were touched upon.

Granting the infectious nature of diphtheria, and the difficulties in the way of tracking it, arising from latent causes, &c., it must still be admitted that it is frequent—more so than with small-pox or scarlet fever—to meet with outbreaks which cannot be traced to an antecedent case; and hence it is probable that the disease may arise *de novo*.

Diphtheria and scarlet fever are often associated, and the one disease has often appeared to have been contracted from the other.

Instances from the author's experience were given, and the nature of the connection between the two diseases was discussed.

The one disease is not protective against the other, nor is one attack of diphtheria protective against another. Diphtheria, moreover, may arise as an intercurrent affection in the course of other diseases, as measles, enteric fever, and erysipelas.

It would seem, therefore, that diphtheria should be classed in an intermediate position between the specific zymotics and the common inflammatory diseases; like erysipelas and puerperal fever, which may arise otherwise than from specific infection, but which propagate themselves readily by infection under appropriate conditions.

It is known that diphtheria can be imparted to the lower animals, but are there diseases of the lower animals differing in appearance from diphtheria, which may be capable of giving rise to that disease in the human subject? This question, still unsolved, is of especial importance in reference to milk; a number of outbreaks of diphtheria having been observed to follow the distribution of a particular supply of milk, though no opportunity for contamination with specific infection could be traced.

"Garget," suggested by Mr. Power, in reference on the Kilburn epidemic, in 1878, and "foot and mouth disease," were referred to.

Many authorities consider diphtheria to occur most frequently on a wet retentive soil; others that it occurs indifferently on soils of various nature. Some consider

it to prefer low, damp situations ; others, high, bleak, exposed sites. The author had not been able to attribute influence to any particular soil or situation, having met with the disease on clay, sand, limestone, on high chalk downs, and in the fens.

Can diphtheria be caused or propagated by insanitary conditions ? Judging from statistics it cannot, for the death-rate from the disease is higher in healthy rural districts than in the most unhealthy towns ; nor has it fallen, like that of fever, in consequence of the sanitary amelioration of recent years.

On the other hand, in practice it is often found that unsanitary conditions are present in houses in which diphtheria has broken out, and the author had an impression that unsanitary conditions, such as the inhalation of drain air and fœtid effluvia, overcrowding and dampness, were not without influence upon the occurrence and course of the disease.

The cause of the disease had at different times been sought for in various low vegetable organisms, as fungi —especially the oidium albicans. More recently Oertel and other German observers had found a micrococcus abundantly developed in the affected mucous membrane.

It seemed probable that the immediate cause of the disease would ultimately be found to be some low organism, which, while capable of passing its existence outside the human body, and perhaps habitually doing so, could nevertheless, under certain circumstances, take on a parasitic habit, and acquire toxic properties.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

EPITHELIOMA OF THE SIGMOID FLEXURE —SUPPURATION AND PERFORATION OF ABDOMINAL WALL—DEATH—AUTOPSY.

Under the care of Mr. BERKELEY HILL, F.R.C.S.
Surgeon to the Hospital.

(For these notes we are indebted to Mr. Victor Horsley, F.R.C.S., Surgical Registrar.)

Sarah Q., aged 66, was admitted under Mr. Hill, on August 1st, 1883. Patient stated that she had always been a healthy woman until the present illness began, with the exception of complicated confinements. Four months previous to her admission she had experienced some severe cramp-like pains in her abdomen. They came on suddenly while out walking one day ; she was obliged to get home, and after resting in bed for a day or two they entirely passed off, and she remained free from pain for five or six weeks. Then she one day experienced some difficulty in passing her motions. This continued for about a week, and was accompanied with a pain, similar in character and situation to that just mentioned. A doctor was called in, who ordered her "powders" and castor oil ; these opened her bowels, and took the pain away. The patient remained free from pain for three weeks, when she was seized with the old pain and inability to pass her motions, from which she was still suffering at the time of her admission.

State on Admission.—The abdomen is flaccid ; there is a distinct tumour, situated in the abdominal wall, most prominent in the middle line, one-and-a-half inches below the umbilicus, and extending into the right iliac region, and down to the pubes. It is pyriform in shape, and exceedingly tender and dull on percussion in the lower parts, and is hard and tense ; but the upper and more prominent part is smooth, rounded, softish and tympanitic. It can be slightly moved from side to side ; but this causes pain. There is no distension of the sigmoid flexure. The tumour is easily mapped out. It appears to be situated in the abdominal wall, and fluctuation can be felt in it. There is no redness or œdema of the surface ; neither are the veins distended. The patient's general aspect is pale and anæmic. Her temperature is 102° F. Skin moist. Pulse 78. There is no vomiting. Her bowels have acted this day, and twice yesterday. Tongue clean and moist. No evidence of failing strength or prostration. An examination of the chest showed it to be normal. Urine contained a little pus.

August 3rd.—Patient is free from pain. The bowels have acted. Turpentine stupes have been applied to the abdomen. That part of the tumour which was dull on her admission, has now become quite soft, and the fluctuation is very evident ; gurgling can be heard with the stethoscope. There is less tenderness. Pressure on the tumour does not reduce its bulk. The urine is to-day full of pus.

August 4th.—Mr. Hill reduced a piece of gut at the lower part of the swelling ; it went back into the abdomen with the characteristic slip and gurgle. The tumour is now less distinct ; fluctuation is not so evident. Temperature 100° F. The urine still contains a quantity of pus.

August 7th.—The patient remains in about the same condition. The bowels have acted twice after an enema. Her temperature remains at about 100° F. She complains of a sense of tightness across her abdomen. The swelling is not tender on pressure. Urine as before.

August 9th.—There was some pain about the umbilicus.

August 13th.—The patient has had some rigors. There is pain across the abdomen. The urine is less foul, and contains less pus.

August 19th.—Patient has had another rigor. The temperature remains high. The griping pain in the abdomen recurs from time to time. The bowels have acted this day rather freely after a dose of castor oil. The tumour has increased in size ; it is neither tense nor red.

August 21st.—There is a patch of dusky-coloured skin in the centre of the tumour.

August 22nd.—The tumour burst at this reddened spot this morning, while the patient was defæcating, blood-stained fœtid pus being discharged, and afterwards some fæcal matters escaped. This rupture was not associated with either pain or shock.

August 23rd.—Under chloroform, the opening was enlarged, and found to communicate with both the bladder and the cæcum ; a quantity of fæcal-smelling pus was evacuated.

The woman's condition fluctuated between this date and September 12th, when she died of gradual exhaustion.

The autopsy was made by Mr. Horsley, and the following is an abstract :—

The brain was rather wasted, but the membranes and vessels presented no special signs of disease. The muscular structure of the heart was rather soft—large vessels atheromatous. The lower lobes of the lungs were œdematous. In the left upper lobe there was a gangrenous patch close beneath the surface, breaking down and containing foul pus. The liver was fatty and friable. Spleen soft and small. The kidneys were very cirrhotic. In the fundus of the bladder there was a ragged, yellowish, friable, nodular growth, perforated in its centre by an orifice which led in-

directly into the floor of the wound in the abdominal wall. The rest of the bladder was slate-coloured, and showed evidence of chronic congestion. The anterior margin of the growth merged gradually into the mucous membrane, while the posterior margin was separated from the level of the surrounding mucous membrane abruptly. The abdomen when opened contained about four ounces of bile-stained pus, mainly in the right flank. The great omentum was drawn down to the back of the wound to which it was firmly adherent by old adhesions. The transverse colon thus formed a V-shaped loop with its apex just below the umbilicus. The bottom of the wound when laid open was found to lead by two sinuous openings into a ragged cavity, surrounded by very hard, yellowish, nodular masses of new growth. A coil of ileum was firmly adherent to the posterior surface of the wound, and to the ragged walls of this cavity. The sigmoid flexure (which was also adherent to this cavity) and descending colon were considerably distended with scybalæ. The left wall of the cavity formed the anterior wall of an abscess which lay along the line of the left external iliac vein, and contained yellowish pus, but not fæcal. On slitting up the intestines, the large intestine opposite the cavity was found to be firmly adherent to a new growth projecting beneath the mucous membrane, but not ulcerating. The small intestine was firmly attached to the new growth, mainly by its mesenteric border, and ulcerated almost completely through opposite the centre of the cavity.

Remarks.—The general appearance of the tumour on admission, led to the assumption that the case was one of incarcerated hernia, and, as may be seen from the notes, this proved to be partly the case. It is not easy to understand the production of the hernia, except on the assumption that the abscess had begun very chronically around adhesions formed between the growth and the abdominal wall, and that the bowel above the seat of disease had prolapsed into the cavity. The fact that the skin did not become reddened until three days before it burst is strongly in favour of the above explanation, and the temperature at the same time was about 102° F. Probably some of the bowel forming part of the contents of the hernia was already perforated, and certainly the cavity of the abscess was shut off from the general peritonæal cavity by firm adhesions soon after the taxis, on August 4th. At the *post-mortem* it was found that these adhesions were so numerous and involved such numerous and distant portions of bowel that enterectomy would have been impossible. The bladder, when examined on August 23rd, did not seem to be infiltrated with growth as turned out to be the case at the *post-mortem*, but the mucous membrane felt soft and spongy when pressed with the steel sound.

Water as a Diuretic.—Dr. Lauder Brunton (*Practitioner*, May), tells us that it is impossible to explain the elimination of water drunk by a healthy man, by a mere increase in blood pressure, whether general or local. It increases tissue change, but removes the waste products as soon as they are formed. In persons who are accustomed to take too little water, the products of tissue waste, may be formed faster than they are removed, and by accumulating, may lead to disease. Fatigue is to be regarded as the imperfect response of muscles and nerves to stimuli, and such an imperfection in their action may be due either to their imperfect nutrition, or to the imperfect removal of the products of their waste. There are many people who awake in the morning feeling languid and more tired than when they went to bed. Though such persons are often well fed and sleep soundly, and though they get better after walking about a little, yet Dr. Brunton thinks their languor depends on imperfect removal of waste products from the body, and has found that a tumbler of water taken just before going to bed, often prevents this languor.

Medical Times and Gazette.

SATURDAY, JUNE 14, 1884.

There are at present two Government Bills in which our profession is especially interested actually before the House of Commons, namely, the Medical Acts Amendment Bill, and the Burgh Police and Health (Scotland) Bill. The former of these two measures has been sent down from the House of Lords, has been read a first time in the Lower House, and rests at that stage. Whether it shall be advanced any further, and if so, how far, depends entirely upon the amount of real interest taken in it by the Government; and it must be admitted that, judging by past inaction and practical indifference on the part of both the Government and the House of Commons, it seems very probable the Bill will meet with the same fate as did its predecessor of last year.

The Burgh Police and Health (Scotland) Bill was read a second time on Monday last, and was referred to a Select Committee. The Bill, which consists of some 558 clauses, is very largely a measure of consolidation and amendment; but it contains a great number of sanitary clauses, and, amongst these, provisions for making the notification of cases of infectious diseases compulsory upon the medical attendant throughout Scotland. This principle has met with very marked opposition from the profession in England, but has never yet been seriously considered by Government, or by either the House of Lords or the House of Commons. It has, however, been directly condemned by the British Medical Association, and arrangements have been made by the Parliamentary Bills Committee of that body, and the Lord Advocate, who has charge of the Bill, for securing that the whole question shall be fully discussed before the Select Committee. The Association will thus render excellent service to the whole profession; and we may expect to obtain a well considered and weighty decision on a much vexed and vexing question.

Dr. Cameron has obtained a very good place on the business paper of the House of Commons, for July 1st, for bringing forward his motion respecting the outbreak of smallpox in the Metropolis. Meanwhile the Metropolitan Asylums Board are doing their best to meet the necessities of the epidemic. The general ambulance system which has been instituted has worked very well, and has no doubt materially helped to lessen the spread of the disease by providing for the removal of all cases to hospital immediately on notice by telephone or telegraph. Sir E. H. Currie, to whose energy, watchfulness, and admirable good sense in all these matters the public are greatly indebted, has brought forward a further improvement in the method of dealing with fresh cases. At present they are all, on removal from their homes, sent to a district asylum, and thence distributed according to the severity of the attack. Sir Edmund proposes that each district

medical officer shall, on notifying a case to be removed, state its character, so that mild cases may be taken straight to the ships, and the severe ones to the district asylum. This has been objected to, apparently on the ground that the responsibility of differentiating the cases ought not to be thrown upon the district medical officers; but the Board generally felt no doubt as to the competence of those officers, and the re-arrangement of the removal of patients was referred to the General Purposes Committee. The Board have received authority from the Local Government Board to acquire compulsorily, by purchase, lands required at Long Reach, for the acquisition of the Poplar District (Infectious Fevers) Hospital at Upton, and for the formation of a second camp at Darenth.

The Committee appointed to enquire into the operation of the Act for the appointment of a Director of Public Prosecutions have reported that the system has, after more than four years' trial, proved to be an utter failure. Of course they do not express their opinion of it with such brutal frankness as that; but they say that it "requires modification and development;" and then they recommend changes by which the existing system will be entirely swept away. The duties of the Public Prosecutor are to be transferred to the Solicitor to the Treasury, whose title will then be "Director of Public Prosecutions and Solicitor to the Treasury," and he will be the responsible head of a department divided into two distinct branches, each presided over by an assistant solicitor, the one dealing primarily with civil, the other with criminal business; and the Department is to practically conduct as well as to decide upon public prosecutions. The condemned system has certainly disappointed nearly every one, and been responsible for some ghastly failures of justice, while the proposed new system, if well carried out, can scarcely fail to be beneficial; and at the worst we may feel sure that, after the action lately taken by the College of Physicians and the College of Surgeons, we need not fear any repetition of such a public scandal as the Bower and Keates persecution. The Committee of enquiry have shown in their report great anxiety to prove that the system they recommend will cost a few thousand a year less than the old one. They felt no doubt, that such "a material economy" of the resources of this impoverished country would have more weight with the Government than could arguments as to mere increase of efficiency.

At the meeting of the Ophthalmological Society on the 5th of June, two papers, possessing more medical than surgical interest, were read. The first of these, by Drs. Sharkey and Lawford, referred to a case of acute myelitis, in which optic neuritis was an early and prominent symptom; indeed, it made its appearance before any of the symptoms due to the myelitis were complained of. Such cases as this are far from common, and so carefully recorded an instance must be regarded as a distinct gain to our knowledge of this as yet unexplained combination. Mr. Nettleship made an important communication on the subject of amaurosis in infants, but as he was not able to give the details of his cases, it is a little difficult to feel sure that they all belong to one category; undoubtedly some of them were cases of meningitis, a group of cases by no means unknown to those of large experience amongst children, recovery from which, as far as the sight is concerned, is, we should say, the rule when the patient is not left permanently hydrocephalic. But it is probable that all Mr. Nettleship's cases were not of this nature, as he spoke of permanent blindness resulting sometimes, which in our experience would but rarely occur from an uncomplicated basic meningitis.

The report of the Committee on Blindness from Ophthalmia Neonatorum, and the resolutions embodied in that report which were adopted at the same meeting, deserve and demand the most serious attention of all interested in the general well-being of humanity. One fact which we understand came to light in the enquiry, though it does not appear in the report, is the absolute certainty with which blindness from this cause can be prevented, if the treatment be only prompt enough. The representatives of the Obstetrical Society who joined this committee in their labours, ascertained from one of the Lying-in Institutions, that of the last fifty cases of this affection that had occurred in their practice, there was not a single instance of any other result than complete recovery. When we bear in mind that somewhere about 30 per cent. of all the blind in this country have lost their sight from this eminently curable affection, it must be admitted that a very strong case has been made out for the action of the Local Government Board, either in the manner indicated in the report, or by some similar process.

The final meeting of the Session of the Royal Medical and Chirurgical Society was held on Tuesday last, when no fewer than five papers were disposed of, leaving several others on the list, which will have to stand over until the next session. Mr. Arbuthnot Lane brought forward the subject of spinal curvatures, founded on a careful study of specimens in the Guy's Museum, as well as of others recently obtained from the dissecting-room. Then followed two papers, illustrating the subject of cerebral localisation: the first by Dr. Broadbent, on a particular form of amnesia—loss of nouns; the second by Dr. Sharkey (which unfortunately had to be read in abstract), on embolism of the right middle cerebral artery, producing left hemiplegia and hemianæsthesia, with death and autopsy seven years later. Both these papers were of great interest, but owing to the amount of work which had to be got through during the evening very little discussion took place, that which followed on Dr. Sharkey's paper being chiefly an amplification of details not contained in the abstract. Dr. Matthews Duncan then read a short paper on albuminuria with parametritis, the chief object of the author being to show the absence of this complication in perimetric inflammation, and in other abscesses. A brief paper by Dr. Stephen Mackenzie on the weight of the thyroid body in 84 persons dying from various causes, brought the evening's work to a close. The President, in adjourning the Society until

next October, said a few valedictory words, and hoped to meet the Fellows after the vacation in renewed health.

At the Epidemiological Society, on Wednesday, Dr. H. Franklin Parsons read a paper on the "Ætiology of Diphtheria," an abstract of which will be found in another column. As one of Her Majesty's Inspectors he has had many opportunities of enquiring into the origin and propagation of the disease, especially in rural districts, and his experience leads him to believe that direct personal intercourse in the school, the public-house parlour, and the field, plays a more important part than some are disposed to attribute to it. In this we agree with him, but we cannot say the same of the intimate relations which he, although cautiously, puts forward as subsisting between this disease and scarlatina. The fact is, he reposes far more reliance on the causes of death published by the Registrar-General, than we should, knowing how often certificates are filled in by medical men, at best perhaps by no means careful in diagnosis, on the evidence of a single visit or on the report of an unqualified assistant, and we must confess to having but little better an opinion of the crude mass of "facts" accumulated by the Collective Investigation Committee of the British Medical Association. The discussion carried on by Dr. Squire, Dr. Thorne Thorne, and one or two others, was poor. Dr. Thorne, however, in a few well chosen words, vindicated the independent and specific character of scarlatina, contrasting it with diphtheria, which he considered as still in a process of differentiation, and, like erysipelas and puerperal fever, not having acquired a definite individuality. Dr. Wortabet, of Beyrout, had sent a paper on the "Epidemic Diseases of Syria," but there was not time to read it. We shall revert to Dr. Parsons' excellent and judicial summary of all that is really known of diphtheria on a future occasion.

The series of conferences which are to be held at the Health Exhibition opened on Wednesday in last week, the first three, held under the auspices of the Mansion House Council, being very properly devoted to the subject of the season, the London poor and their dwellings. Mr. G. B. Longstaff read a most interesting and elaborate paper bristling with statistics on "The Population of London and its Migrations." He maintained that everything ought to be done to discourage immigration into large towns. A paper by Miss Gertrude Toynbee followed, containing a plea for making the dwellings of the poor more homelike; and another by the Rev. A. Mearns dealt with the physical and moral results of overcrowding. The first conference closed with one of the speakers suggesting that before the discussion was closed Lazarus should be given an opportunity of speaking on the subject as well as Dives. The chairman promised that Lazarus should be heard. The second conference, held on the 5th, began with papers by Mr. James Hole and Miss Lidgett, the former dealing with suburban dwellings and cheap railway fares, and the latter with the influence of ladies working amongst the poor. Mr. H. W. Harrod then read a paper, in which he proposed that 2,500,000*l.* should be raised as a building fund, half to be lent by the State at 3 or 3½ per cent. With this he calculated that provision could be made for nearly 50,000 persons, whose payments for rent would allow of a dividend of 4 per cent. being paid on almost the whole capital. The Archbishop of Canterbury, who presided at this conference, made an admirable speech, concluding with the self-evident but frequently ignored truth that the poor are of the same flesh and blood as ourselves.

At the third conference, held on Friday last and presided over by Cardinal Manning, Mr. Shirley Murphy read a paper on the difficulty of sanitary administration in the metropolis. The sanitary authorities, he said, as at present constituted, existed rather for the removal of nuisances than for the prevention of disease. Thus, there was no sanitary authority to deal with the size, ventilation, and arrangement of rooms in the construction of buildings, even when these were altogether unsuited for the requirements either of health or decency. It was only after the house was built, and the inhabitants had suffered ill-health or loss of life, that the State gave the sanitary authorities power to act. The reason why so little thought had been given to the health of London had arisen from the numerous difficulties connected with its government. At present no sanitary administration deserving the name could be said to exist in the greatest city in the world. The 39 local sanitary authorities had no jurisdiction over many subjects of vital importance to the public health, and the authorities upon whom these duties devolved were not primarily concerned in the prevention of disease. Mr. Murphy's thoughtful paper was followed by others of less importance, and by a speech from Dr. Alfred Carpenter, who urged the advisability of separating the repression of disease in London from the relief of destitution. The speech with which Cardinal Manning closed the conference was well-informed and statesmanlike — the more statesmanlike perhaps in making no attempt to be startlingly original. The fourth conference was held on Monday, under the auspices of the Society of Medical Officers of Health, the Sanitary Institute, and the Parkes Museum. A fairly full report of this meeting will be found in another column.

Wednesday's conference, held under the auspices of the same societies, was devoted to industrial diseases, and there was a large attendance of medical men to hear Dr. Bristowe's paper on that subject. Dr. Bristowe took the widest possible view of industrial diseases, gathering under that category such widely diverse affections as grocers' itch, wool-sorters' disease, clergyman's sore throat, and writers' cramp; besides, of course, the many forms of metallic poisoning, more commonly recognised as the penalties of unhealthy trades. He said at the outset of his paper that the investigation of the causes of disease was a subject which would ever engage the choicest intellects in the profession of medicine, and the character of the speakers who subsequently engaged in the discussion of the

paper went some way to support his contention. The Conference was followed by a sparkling lecture in praise of wine, by Dr. Thudichum.

We are glad to see that the Epidemiological Society is to hold a conference at the International Health Exhibition, on the afternoons of July 24th, July 25th, and July 26th, from 2 p.m to 5 p.m. The President, Dr. Norman Chevers, will open the conference with an address on Health in India, and the following subjects have been selected for discussion:—Prevention of Epidemics; Change in type of Epidemic Disease; Influence of Climate on Epidemic Disease; Behaviour of Typhus in England during the present Century. Papers must not occupy more than twenty minutes, and each speaker taking part in the discussions not more than ten minutes.

At the meeting of the Society for the Study and Cure of Inebriety, on Monday, Dr. W. B. Carpenter read a paper on the Ætiology of Inebriety. Every sensation, he said, must have a physical antecedent, and the mental craving for alcohol was the product of a physical condition. This was evidenced by the craving for a fresh dose of alcohol on recovering from the depression induced by preceding excessive doses, the mental condition being this expression of the physical condition. Another evidence was the development of the craving after excessive hæmorrhage, especially in the puerperal state. In such cases, the diseased condition having arisen from a temporary disturbance and not yet being permanent, a cure might be hoped for. The difference between temporary loss of nervous power and permanent depravation of nutrition of the nervous system was clearly seen in the results of treatment. Bodily fatigue was a frequent antecedent cause of inebriety, the diminution of heart power and the consequent depression often calling for alcohol or some other nervine stimulant. It was clear that alcoholic heredity might act as the antecedent physical cause, the alcohol habit in the parents depraving the parental nervous system and then similarly depraving the nervous system of the offspring. Nothing was so certain to induce the drink crave as the habitual use of alcohol by persons susceptible to its action, and when once the nervous system had taken on that depraved form this remained as a diseased condition. Alcohol was a powerful paralyser of the will, and whatever moralists might say, once the diseased condition of alcoholic inebriety had become confirmed moral means were apt to fail, and the diseased state must be recognised and treated. Such were some of the physical causes of inebriety. The moral causes were such as nervous shock and depression from loss of property or friends. The depression from the moral cause was physical, and developed a longing for a nervine stimulant. In the early stage of inebriety, a moral impression could be met and overcome by a moral impression, but in the confirmed stage of inebriety, where there was a permanent depravation of nervous nutrition, the treatment of the diseased physical state must be resorted to. The paper was followed by a brief discussion which was adjourned till Tuesday afternoon, July 1st.

A most successful meeting was held on Tuesday, at the Mansion House, with the view of securing public support for the foundation of a convalescent home hospital by the Home Hospitals Association. The successful career of Fitzroy House, and the cordial support it has received from the medical profession, warrant one in expecting a similar success for the new convalescent hospital, which is quite as much if not more wanted. Sir Risdon Bennett, in one of the best speeches delivered at the meeting, pointed out the two-fold danger of the present system of sending convalescents to seaside lodgings, which are often as harmful to the patient as the patient is harmful to them. Another important point suggested by Sir Risdon Bennett, was that there should be inland convalescent hospitals as well as seaside ones. The first requirement of a convalescent home for infectious cases is, that it should be far away from holiday haunts, so that the patients may be able to expose themselves the livelong day to air and sunlight without the likelihood of mixing with healthy people. Such a requirement is more likely to be found inland, within easy reach of London—a prime necessity—than at the seaside. The association should be strong enough to be able to disregard the popular tradition, which prescribes sea-air for the scarlet fever patient when convalescent with the same insistence that it once prescribed a pile of bedclothes for him when the rash was out.

Besides the International Medical Congress at Copenhagen in August, the International Congress for Hygiene and Demography will assemble for the fifth time, from the 21st to the 27th of the same month, at the Hague. Judging from the programme, which has been published at great length in the French Medical Journals, many papers of the highest interest are likely to be discussed, among them, one by Dr. Pasteur, on "The Attenuation of Virus; on "Temperature within the House," by M. Emile Trélat; on "Water Supply," by Dr. Crocq, of Brussels; and "Science the Enemy of Disease," by Professor Corfield. The first section will be devoted to general and international hygiene; the second, to that of towns and rural districts; the third, to personal, and the fourth to professional hygiene. Information may be obtained from Professor Overbeck de Meijer, of Utrecht, the general secretary.

For some months past, writes a Glasgow Correspondent, there have been lively meetings of the Fellows of the Faculty of Physicians and Surgeons, at which the scheme of amalgamation with the Edinburgh Colleges, and the granting along with them of a complete licence in medicine and surgery have been considered. The scheme submitted has been finally adopted by the colleges concerned, and comes into operation in October. The attempt to produce a combination of the Faculty with the Royal College of Surgeons, with the object of forming a Royal College of Surgeons of Scotland, of which the Fellowship should be obtained only by examination, has not been successful. At the last monthly meeting of the Faculty it was announced that the negotiations had been broken off because the

representatives of the Edinburgh College insisted upon all the examinations being held in Edinburgh. The Faculty have now to consider the nature of the examination to be instituted for the Fellowship, of which the syllabus was submitted five months ago. Very little progress has been made towards the adoption of the various clauses, the principal ground of opposition being the too severe character of the examination. It is said that there is a probability of the scheme being sent back to the Council for further consideration.

The spirit of reform seems to be still rampant at the Glasgow Royal Infirmary. It is only five months since the rules and regulations "as revised by the managers," regarding the administration of anæsthetics, were issued to the members of the staff. It might have been supposed by anyone not acquainted with this hospital and its management, that a period of rest would follow. But since this time, as we have already announced, the number of physicians has been reduced from five to four, and a surgeon has been appointed to take charge of the Burn, Erysipelas, and Lock Wards. As compensation for the disagreeable and dangerous cases to which he must attend, the managers have attached a "salary," or honorarium, to the position, the amount being one half of that received by the other surgeons! Further changes are threatened, for having reformed the House Staff, the managers are considering the question of dispensary organization. In the midst of all this work it must be unsatisfactory to the managers to feel that the older members of the Hospital Staff are tiring of this incessant change and worry. At the quarterly meeting in August, a surgeon and a physician have to be elected to take the place of Dr. James Morton and Dr. J. D. Maclaren. The former's term of office expires: the latter does not seek re-election. There will be many candidates for both vacancies, and canvassing has already begun.

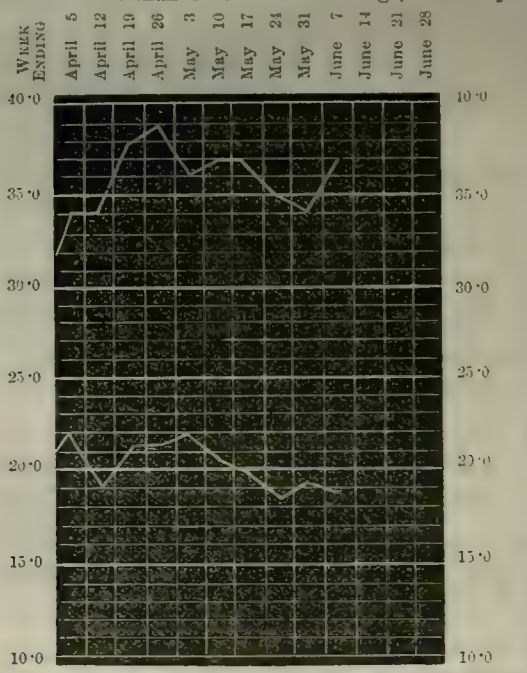
The important post of Secretary to Council in the Royal College of Surgeons in Ireland, vacant through the death of Dr. James Stannus Hughes, has been filled by the appointment of Dr. Archibald H. Jacob, whose ripe experience, unquestioned ability, and literary talent cannot fail to justify the choice of the members of Council who voted for him. Dr. Jacob's appointment will leave a seat vacant on the Council, and there can be little doubt that it will be filled by the election of Dr. Rawdon Macnamara, who obtained the next largest number of votes to those secured by the last on the list of successful candidates for the office of Councillor at the annual election, which took place on the first Monday in June. Should Dr. Macnamara be selected at the forthcoming election to fill the vacant seat upon the Council, the awkward *contretemps*, by which the representative of the College upon the General Medical Council ceased to be a member of the Governing Body of the College, will be satisfactorily set at rest.

The death of Dr. James Stannus Hughes may possibly lead to an amalgamation of the School of Surgery of the Royal College of Surgeons in Ireland with the Carmichael College of Medicine, Dublin. One of the chief stumbling-blocks hitherto in the way of this much-to-be-desired result was the fact that the chair of Surgery in both Schools was divided. In the School of Surgery, Dr. Hughes and Mr. William Stokes were Joint-Professors of Surgery. In the Carmichael College the duties of the corresponding chair were discharged by Dr. John Kellock Barton and Dr. A. H. Corley. It so happens that Dr. Barton's resignation as a Lecturer was handed in shortly before Dr. Hughes's death, so that in the event of Dr. Corley's coming forward and being elected as Professor Stokes's colleague, all difficulty would be removed as to the amalgamation of the Surgical Chair, one of the most important in the two Schools. If the union between these important Schools should become *un fait accompli*, the benefit to the Dublin School will be inestimable.

The action of the two Dublin Colleges with respect to the Medical Acts Amendment Bill is significant in point of contrast. The Royal College of Surgeons, at the statutory annual meeting of the Fellows, held on the Saturday preceding the first Monday in June, took up a position of uncompromising hostility to the Bill as at present framed. At that meeting the following resolution was adopted:—"That this College thoroughly disapproves of the proposed Medical Bill as it now stands before Parliament, and hereby recommends its incoming Council to oppose it by every constitutional means at their command, unless its provisions be amended in such a manner as the Council may consider to maintain the interest of the College." The King and Queen's College of Physicians, on the contrary, have petitioned the House of Commons to amend the Bill in certain important particulars. Of these the first is the question of representation on the Medical Board of Ireland. As the Bill now stands, Clause 9 proposes to grant *four* representatives on the Board to each of the Universities—the University of Dublin and the Royal University of Ireland, and only *three* representatives to each of the Corporations, the King and Queen's College of Physicians and the Royal College of Surgeons. The Colleges are by this arrangement hopelessly out-numbered, and are in danger of losing any representation whatever on the new Medical Council. Consequently, the College of Physicians have put forward a powerfully-worded and weighty line of argument in favour of an equality of representation on the Board. Other amendments proposed by the College of Physicians are:—(1) The transference of the framing of examination rules from the Medical Boards to the Medical Council; (2) The disposal of the Surplus Funds of the Medical Boards so as to secure the maintenance of the Corporations in full efficiency; and (3) A modification of the privileges proposed to be accorded to undergraduate candidates for the final examinations under the Bill. We cannot help thinking that in this instance the policy of the College of Physicians is wiser than that of the sister College.

If the number of deaths from zymotic diseases in London last week had kept to the ten years' average instead of being 55 above it, the general death-rate

would not have been more than 17·2. As it is, it was 18·9, the total number of deaths being 14 below the average. As the deaths from respiratory diseases were only 5 below the average, there must have been a considerable deficiency of deaths under other headings to counterbalance the excess of 55 caused by zymotic diseases. On looking through the tables it will be found that this deficiency is in great part furnished under the heading of "old age," which was certified as causing only 15 deaths as compared with an average of 45·5. Considering that the mean temperature of the week was more than 5° below the average, this escape



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first ten weeks of the present quarter.

of old age is a little remarkable. Of the zymotic disease small-pox, measles, and whooping-cough were the most fatal, causing between them 213 deaths, or nearly three-fourths of the whole zymotic mortality. In the 28 great English towns, last week's death-rate was 19·6 per 1,000; while in the eight great Scotch towns it was 23·3 per 1,000. The zymotic death-rate in the former was 3·0, and in the latter 4·3.

By the Army Circular of May 1st, 1884, the War Office Authorities sanction the formation of ambulance classes for ambulance drill and instruction in first aid to the wounded, throughout the whole Army, Regular, Militia and Volunteer. The training of officers and men is to be carried out under orders of general officers commanding and principal medical officers of districts. Commanding officers are to afford medical officers undertaking the duty every facility for the formation and instruction of classes, and are to detail a competent non-commissioned officer to assist the medical officer in the drill, and to take charge of equipment and appliances. Details are given as to the number of drills and the inspection of the classes when instructed. Certificates of proficiency will be given only to Militia and Volunteer corps in which two men of the rank and file per company are told off as recognized stretcher bearers of the corps who will, as now, wear the Geneva badge on the right arm. But to secure efficiency and the retention of the right to wear the badge, the recognized stretcher bearers must attend four drills annually.

It is interesting to observe that the authorities look upon the ambulance movement with so much favour as to extend its instruction to the Regular Army and Militia. Originating among the Volunteers, thanks to the untiring energy of Lieutenant Maclure of the London Scottish, the ambulance drills are being generally adopted by most Volunteer surgeons in their respective corps, and their bearer companies are now recognized as a regular part of their regiments. A further development of the movement is the formation of the Volunteer Medical Association which will, if accepted by the War Office, represent the Army Medical Staff of the Volunteers. With respect to this last, its claims for recognition are under the consideration of the authorities, and it promises, if accepted, to render the Volunteer Army complete in its medical arrangements, leaving the Commissariat and Transport still unknown.

Volunteer Medical Officers have now a recognized position in their regiments and definite duties and drills to superintend and men to command and it is to be hoped that they will now accept their position with favour and drill their men in ambulance and stretcher work, thus taking their place among their working brother officers instead of being, as is the case in many regiments, merely ornamental appendages. In several metropolitan and provincial Volunteer regiments, the bearers are intelligent, well instructed and well drilled and considering their few opportunities for practical work they are wonderfully efficient and in all cases are zealous in their duties. We look upon this military ambulance work as a great advance and we trust that the Medical Officers of our Volunteer army will not neglect their opportunity.

It is stated that M. Parize, a French *savant*, has discovered swarms of bacteria in the very centre of a common house-brick. These all-pervading creatures had already been found in plaster walls and in wood floors, and doubtless before long they will be sought for and perhaps discovered in iron rails, iron not being, so far as we know, a disinfectant in its uncombined state.

Professor Gosselin, the acknowledged head of French surgery, since the death of Nélaton, has, by reason of advancing years and impaired health, found it necessary to resign his chair in the Paris Faculty, the labour of teaching and especially of examining, which is carried on on so large a scale at Paris, proving too severe a tax upon him.

The Committee of the Bower and Keates' Fund met at Sir William Jenner's residence on May the 30th.

It was reported that the second civil action had been decided in favour of the defendants,—the jury being so strongly of opinion that there was no case against Messrs. Bower and Keates that they did not desire to hear the witnesses for the defence; that notwithstanding this, Messrs. Bower and Keates' Solicitor had been served with notice of motion for a new trial, on the grounds of "non reception of material evidence, misdirection," &c. The Secretaries read a letter from Dr. Bower giving a detailed statement of the expenses that had been incurred in the defence, amounting to 1,006*l.*, and the Committee unanimously agreed to pay over on account 750*l.* out of the fund towards meeting the expenses.

We see in the papers an announcement of a *Matinée* at the Royal Avenue Theatre on Thursday, June 26th, at 2.30 p.m., in aid of the funds of the East London Hospital for Children. Besides its good object of giving much-wanted help to the Charity, this undertaking has a special interest of its own, the play that is to be performed being written, we understand, by a London doctor, and founded upon incidents of hospital life, with which he is intimately acquainted. "Sister Grace," the title *rôle* in this new and original drama, will be played by a well-known actress, who will be supported by a company of considerable strength. It is much to be hoped that the double interest in this entertainment will ensure a full house. Tickets can be procured, and any enquiries made for seats, &c., at the Theatre; and also of Mr. J. Scott Battams, the Resident Medical Officer at the Hospital, Shadwell.

A serious epidemic of typhoid fever has broken out at St. Albans, and the Local Government Board have commissioned Mr. Shirley Murphy, Medical Officer of Health for St. Pancras, to act for them in the investigation of the outbreak. More than 100 cases have already occurred, and Mr. R. C. Lloyd, one of the principal medical practitioners of the neighbourhood, has fallen a victim to the disease. The fever is believed to have been spread through the agency of milk.

It is reported from Cairo that the regretable dispute which has arisen in Egypt between Sir Benson Maxwell and Dr. Crookshank, of the Egyptian Prisons' Department, is likely to terminate in favour of the latter. Sir Benson Maxwell's interference with the Prisons' department has been reprobated by his superior officer, and he has been warned that his threats to prosecute Dr. Crookshank must cease.

The usual annual report made by the Home Office under the Vivisection Act, has just been issued. It states that during the year 1883, 44 persons held licences; and of these 32 performed experiments and 12 performed none. The total number of experiments of all kinds during the year was about 535. Of these, 256 were done under the restrictions of the licence alone; 55 without anæsthetics; 122 under certificates dispensing with the obligation to kill. Four or five experiments on dogs and cats were performed. The writer of the report is at great pains to prove that the suffering inflicted on animals under the Act was wholly insignificant. What he does not say is, that so long as the restrictions of the Act are maintained, it may be expected that the advance made in England in the direction of relieving human and animal suffering will be equally insignificant, compared with what it otherwise might be.

The following are candidates for the Council of the College of Surgeons at the Election in July next:—Mr. Thomas Smith (re-election), Mr. Lawson, Mr. Durham, Mr. Cowell, Mr. Pemberton, Mr. Berkeley Hill, Mr. Barwell, Mr. Allingham, and Mr. Gant. There are five vacancies, and we should like to see the first five candidates we have named successful. Mr. Berkeley Hill has, no doubt, a strong claim, but the Medical School to which he belongs is already fully represented on the Council.

BREAKING-UP.

With this week the academical year in that University of advanced medical teaching, constituted by our various societies, comes practically to a close, and the students will have a time for leisure and thought, before joining in those holiday exercises and contests in Belfast, Copenhagen and Montreal, to which many of them will no doubt be drawn. They have had a very useful and industrious session, the classes have been well attended, and the general progress has been satisfactory. It is true that there has not been any set disputation which can rival in magnitude or importance the debate on syphilis at the Pathological Society a few years ago, or that on diphtheria and croup at the Royal Medical and Chirurgical Society more recently; but it is very questionable whether these academical discussions do so much to extend or to crystallize knowledge, as might be at first sight expected of them. At any rate it will be generally admitted that it would be unwise of our advanced students to allow themselves to be too often tempted away from their ordinary unobtrusive labours to take part in these grand sham-fights. The past session, nevertheless, has witnessed some debates of decided interest. Surgeon-General Hunter's paper, on the "Outbreak of Cholera in Egypt," was followed by a discussion, which, from the number and experience of the speakers, must be admitted to be of value and importance. It is difficult to say that any definite advance has been made in our knowledge by it at present, as such diametrically opposed views were expressed on the mode of propagation of the disease, but independence of thought is always healthy, especially when preceded by and based upon a practical acquaintance with the subject. If Koch be right, then Sir Guyer Hunter and the large number of Indian doctors who think with him—and they include some of the ablest men in the service—have been working on the wrong tack, for according to present beliefs, insanitary conditions alone will not suffice for the production or evolution of a specific organism. The discussion on the cold water treatment of typhoid fever, at the Medical Society, brought out forcibly the proverbial differing of doctors, and showed once more how difficult and dangerous a thing it is to handle statistics. The evidence was not on the whole

strong enough to encourage the use of the bath as a routine treatment. Pneumonia formed the subject of debates at Liverpool and Birmingham, with especial reference to its ætiology, and its infectious character. The Irish Academy of Medicine, in their Surgical Section, discussed the radical cure of hernia at some length, and the same subject was also debated at Liverpool, the majority of speakers in both cases being distinctly in favour of operative interference of some sort or other. More recently the Glasgow Pathological and Clinical Society have discussed albuminuria in all its bearings, chemical, pathological and clinical.

Amongst the dissertations on surgical subjects, those on the treatment of fractured patella, by Sir Joseph Lister, at the Medical Society, and by Messrs. Heath and G. R. Turner, at the Clinical Society, are to be noted. It is clear, from these papers and from the remarks made upon them, that much better results are looked for and obtained than was the case ten years ago. Mr. Hutchinson departed somewhat from the beaten track in advising high amputation for gangrene, and Mr. Clutton added another to the list of triumphs of abdominal surgery, in his successful case of intestinal obstruction due to a diverticulum. Mr. Lawson Tait's communication on hydro- and pyo-salpinx to the Obstetrical Society, on which a dropping fire of discussion is still being kept up in these columns, deserves mention, as well as Dr. Fowler's paper on the same subject from a pathological standpoint, communicated to the Medical Society. At this Society too was read Sir Andrew Clark's paper on catheter fever, by which he incurred the opposition and criticism of nearly all the leading surgeons of London. The subject has since been under consideration at Glasgow, where, if we remember rightly, it met with a more favourable reception.

Turning next to medicine, it seems almost unnecessary to say that the Clinical Society have had an evening at myxœdema, for this is now an annual occurrence with them. Diseases of the nervous system always claim a large share of the time of our student teachers, and in this respect the past session has not differed from its predecessors. Dr. Ferrier, as Marshall Hall prizeman, gave an account of recent work in neurology at the Royal Medical and Chirurgical Society. Amongst the other communications on this subject, we may refer to Dr. Bastian's cases of hæmorrhage into the brain, and Dr. Althaus' case of syphilitic tumour of the meninges, both read before the Clinical Society, to Dr. Pye-Smith's case of tumour of the optic thalamus at the Pathological Society, to a paper by Dr. Sharkey on homonymous hemianopia at the Ophthalmological Society, and to a paper by Dr. Gowers on spasm of the ocular muscles, at the same Society. To these we must add the paper by Mr. Durham on trephining the lower jaw for neuralgia, and one by Mr. Chavasse on neurectomy of the second division of the fifth nerve for the same complaint.

Diseases of the circulatory system have been illustrated by Dr. Samuel West's papers on "Purulent Pericarditis," and the "Circulation through the Coronary Arteries," at the Pathological Society, and by papers on arteritis, by Dr. Hadden and Mr. Gould, at the Clinical Society; while aneurysms have received a fair amount of attention through papers by Mr. R. W. Parker, at the Royal Medical and Chirurgical Society, and by Drs. Turner and Kidd, at the Pathological Society. A paper on the "Ætiology of Tuberculosis," by Dr. Dawson Williams, at one of the earlier meetings of the Pathological Society, afforded Dr. Wilson Fox the opportunity of renouncing his former views, and of expressing his acceptance of the proposition that tubercle can only be set up by tubercle. Some interesting examples of tubercular disease of the tongue were shown by Messrs. Barker and Godlee, at successive meetings of the same Society. In conclusion, we ought not to omit mention of the valuable papers on bone disease in wild animals which Mr. J. B. Sutton has contributed to the Pathological Society from time to time, as the result of his unrivalled field of observation at the Zoological Society's Gardens.

All these exercises will have prepared our students, both young and old, and kept them in good fettle for the grand international contest at Copenhagen. There they will meet friendly antagonists trained in the studies and laboratories of Germany (with the help of methods which we in England have had to renounce) to a super-subtle refinement of intellect which they cannot hope to rival; they will have to match their powers of clinical insight with that lucid and logical form of mind which can see, or feign to see, order in every chaos. But though they have brought to their work less industry perhaps than the German, and less clearness of thought than the Gaul, we may be sure that they will fully maintain in the contest that reputation for robust common sense, which has always distinguished the British School of Medicine.

MILK *VERSUS* MEAT IN THE NURSERY.

Milk is, doubtless, of all articles of diet the most valuable and the most abused—abused, that is, in the sense of being violated as to quality. For all practical purposes the milk-supply of our own, as of most civilized countries, is derived exclusively from the cow; for the well-meant efforts of the British Goat Society have not yet attained that measure of success which they deserve, and which would justify us in reckoning goat's milk as a common article of consumption amongst that large class to whom the "poor man's cow" is unfortunately an unknown or an unappreciated blessing. The true story of the treatment and distribution of our milk is a strange and a somewhat disheartening one. In itself a nutritious, satisfying, all-sufficing food, milk is at once the hope and the despair of the modern food reformer. The inhabitants of large cities must not expect to obtain it both good and cheap; they are fortunate if it can be bought pure, fresh, and at a reasonable rate. On the other hand, there are large "country districts" in England where milk is rarely or never drunk by the peasant classes. These anomalies and disappointments are dependent on the source whence the milk is derived, as well as on the vicissitudes to which it is subjected in virtue of its position as a perishable article of commerce. Its natural quality and composition differ considerably according to the breed of the animal which yields it; and if the public, or individuals, prefer and demand milk of a particular appearance, the dairyman

or the purveyor is tempted to secure this by artificial means: and in such a case adulteration may be said to be initiated and fostered by the caprice, or ignorance, or want of reasonableness of the consumer.

Normal physiological processes in the cow produce corresponding changes in the mammary secretion. For some days after calving the milk acts as a drastic purgative upon the young child, as on the calf; and every two or three weeks, at the periods of recurrent œstral excitement, the milk is distinctly affected in character for a few days, after which it is again furnished of its usual quality, but in somewhat lessened quantity. And although the average quality of the daily yield of a large herd of cows may vary but slightly, it must be remembered that the milk of but two or three animals goes into each can, and that it is exceptional for the whole milking from all of them to be mixed together before it is placed in the cans and sent out for distribution. The quality and kind of food supplied to the animal produce effects which are often sufficiently noticeable in the taste and appearance of the milk and the butter. Brewers' grains, which are largely used by cow-keepers—especially by those in towns—increase the yield of milk, but make it thin and white. Some years ago a cow-keeper in a university town stated that he had given up the use of grains because, although they greatly increased the flow of milk, yet when his cows were fed on good hay and roots the milk not only kept better, but would "carry more than twice as much water." General disease, bad condition, and local disease and injuries of the udder are other important factors in determining the quality of the milk produced. But supposing the animal to be in perfect health and condition, and that every precaution has been used to ensure cleanliness during the milking, several other conditions must be observed if the consumer is to obtain the best possible value for his money. Not the least important of these is the maintenance of a proper temperature.

When drawn from the udder, milk has a temperature of about 100° F.; that most conducive to its preservation in good condition is about 50° F. A higher temperature, as that of the air in warm summer weather, or a colder, as during the frosts of winter—but especially sudden and repeated variations—are prejudicial. It is obvious that this implies elaborate and intelligently supervised arrangements for iceing or for heating during transit, to which most of the railway-borne milk, contracted for from small and scattered country farms, is not, and cannot be subjected. It is of course equally necessary that "churning" be prevented during the journey, and this is obviated by filling each can quite full up to the bung or stopper. Another essential of good milk is a rapid and regular distribution of the supply. Under favourable circumstances, milk will doubtless keep "fresh" for a period of seventy hours, or even longer; but it is not benefited by the process, and there can be little doubt that its deterioration has been in progress for some time before it turns distinctly sour. But if the evening's milking is kept until early morning before starting on a long railway journey to the city—a journey performed without any special precaution for regularly maintaining a favourable temperature—the limit of its endurance will have been well-nigh reached by the time it is delivered to the consumer on the morning of the following day; and this result will not be affected by the fact of its having been mixed by the city milkman with some portion of later arrival than itself. It is the custom in some dairies in large towns, to add a small quantity of borax to the milk which they receive; this serves to increase its keeping qualities, and appears to be in no degree harmful; it may easily be imitated by the country housekeeper with decided advantage in hot weather.

Seeing, then, the difficulties which attend, and the precautions which must be taken to ensure an initial supply of pure milk of good quality—having regard to the actual cost of its production, and to the difficulties which attend its collection, storage, transit and distribution in good condition; and allowing a minimum profit to the farmer, to the contractor, and to the retailer,—it is clear that good pure milk, although always a cheap food, can never be an inexpensive article of diet. In other words, what is true of other things is equally true of milk—if it is to be genuine and of first-rate quality, a fair price will have to be paid for it.

That, in this case especially, it is real economy to pay a good price for good value, will not be denied; it is only a matter of regret that the consumption of milk amongst our juvenile population is not greater than it is, and that its purchase is not always regulated by the principle which we have thought well to emphasize. The value of milk *versus* meat, as the staple of young children's food, is strikingly brought out on perusing some statistics lately published by the authorities of the Orphan's Home and Asylum, in New York. Children are admitted from three to eight years of age, and are kept in the institution until twelve years old. The dietary for children under eight years of age, comprises milk and cereals, with vegetables and fruit in suitably varied combinations, but meat and fish are both rigidly excluded. Children over eight years old have meat three or four times a week with their dinner, and at those meals milk is omitted. Under these conditions, the record for the past twenty-five years shows a remarkably low death-rate and an unusual freedom from disease of all kinds. These happy results are doubtless due in large measure to the superior sanitary arrangements adopted there; but the noticeably small number of cases of gastro-intestinal derangements which are recorded year by year, can only be explained in reference to the admirably devised bill of fare—plain, nutritious, bountiful, and yet unstimulating—which is so well adapted to the age and wants of the inmates. The year 1865 was the only one during which the children under eight had a meat diet; and in that year—the total number of inmates being 139—it is significant that there occurred 98 cases of gastric disorder (as against 25 only in the previous year with 124 inmates), and a total of five deaths, this number being exactly *one-fourth* of the total deaths recorded during the whole of the 25 years, 1859–82. In comparing the case of such children with that of others, it must not be forgotten that the majority of them are the descendants of those whose condition in life was so unfavourable to health,

that they are placed in the Home "already impregnated with the seeds of disease, sown by vice and violation of all sanitary laws." Such a diet cannot but be serviceable to the children of the present age, when adult life is carried on at high pressure, and disturbances of the nervous system are so rife. Not a few men and women may be said to owe their good health and success in life—if not life itself—to such a factor in the regimen of their early years. There is one more point which is too easily ignored to allow of its being passed over in silence. Unfortunate as the inmates of such an Orphan's Home may be in the loss of parental love and care, they are happy in being spared the ingestion of unwholesome and (for their age) indigestible food; and, without being cynical, we may say that, for the child of tender age, there is an inestimable advantage in the absence of the "indulgent parent" who would thoughtlessly tempt it with morsels of meat and other dainties quite unsuited to the capabilities of a digestive system which is still in the earlier stages of its physiological development. Such unkind petting is far too common amongst nurses as well as parents; but the tit-bit from Mamma's plate deserves a condemnation as severe as the anathemas which are justly launched against the "sip from Papa's glass." Such acts have no true kindness in them: they may afford a selfish indulgence to a thoughtless parent, but for the child they are cruelty, or worse.

CLINICAL PAPERS.

No. XII.—The Radical Cure of Hernia.

Within the whole range of operative surgery no more striking instance of return to ancient procedure is offered, than in the case of recent attempts to obtain the radical cure of hernia. The practice followed by the "Rupture Cutters" of the Middle Ages of removal of the entire hernial sac, has in a modified form under the influences of modern experience and antiseptic methods, regained the foremost place as the best operation in cases in which a radical cure is contemplated.

The following paper will deal briefly with the principle of, the different methods of performing, and the indications for, the operation; also with the immediate and ultimate prognosis in cases in which it has been performed.

The principle of the modern operation is a combination of those on which two of the older methods were based, viz., the obliteration of the sac, and efficient closure of the neck by the firm organisation of inflammatory products deposited as a result of the operation. The aid of a plug of pre-existing connective tissue, an important element in the methods of Wood and Wützer, is entirely dispensed with.

For the sake of simplicity the modes of operation may be placed under the following two heads.

1. Dissection out of the entire sac, with ligature of the neck.

2. Dissection out of the entire sac, and suture of the margins of the ring.

One of these two plans, with some modifications not worthy of consideration as distinct operations, is suitable for every case of rupture, and we will at once proceed to the consideration of their adaptation to the special forms.

The first method may be employed for the cure of any variety of hernia, but in inguinal and umbilical or ventral herniæ, where a definite fibrous ring exists, the margins of which are capable of approximation, the addition of sutures carried across this ring, as laid down in the second method, is always to be recommended.

In inguinal hernia the sac is exposed and laid open, existing adhesions are freed, and the contents are returned, or in the case of omentum usually removed, as in an ordinary case of kelotomy. The entire sac is then freed from its connections and removed, care being taken to cut through the neck at its extreme limit above, to ensure which, in ruptures that have only been recently developed, it may be advisable to lay open the still existing inguinal canal. This thorough removal of the neck of the sac is a most important point in regard to possible future re-development of the hernia; recurrence being the more likely, should a depression be left at the site of the old opening as a determining starting-point. Where the sac is of very large size or of the pre-peritonæal variety, the removal of an inch or more of the neck may be advantageously substituted for complete extirpation, since the latter often involves a considerable amount of immediate and some danger of recurrent hæmorrhage from the scrotal vessels, and in the case of a pre-peritonæal sac, dangerous interference with the peritonæum. When the sac is left, it should be drained from end to end to ensure its granulating up from the bottom. The sac or its neck having been removed, sutures are carried across the ring and its edges drawn together; they should have a firm hold, but care must be taken to avoid the epigastric artery. The stitches should be of silk or stout catgut cut short, and although their permanent efficacy is doubtful, they are unquestionably of immediate use if the patient has a cough, and of ultimate benefit as a means of provoking the deposition of a sufficient amount of inflammatory products in the neighbourhood of the ring, the all-important factor in the process of cure which antiseptic precautions rather tend to prevent than to favour. In this variety also arises the question of removal of the testis under certain conditions, *e.g.*, its situation in the inguinal canal, or an extremely intimate connection between the neck of the sac and the elements of the spermatic cord. In the former case, we are mainly influenced by the state of development of the organ: if it appear atrophied and useless, it should be removed, but if it be of fair size it, together with the cord, should be freed and lowered into the scrotum, so as not to interfere with the subsequent application of a truss. In the second case, where the sac has been forced down among the elements of the cord, some of these have in recorded cases been unavoidably divided, with the result of atrophy or gangrene of the organ; hence, if the *vas deferens*, or the spermatic vessels, have been accidentally cut during the operation, the testicle should be removed.

In crural or obturator hernia, the surroundings of the ring preclude the use of sutures; and here we must content ourselves with the first method, the neck either being ligatured *en masse*, or, preferably, in two halves. The sac should be drawn upon so as to ensure a high division of the neck, and then the latter is transfixed with a doubly armed aneurysm needle. The ligatures are tied on each side and the sac removed. This proceeding very materially diminishes the size of the crural opening, and yet allows temporary drainage from the peritonæal cavity, in many cases a decided advantage. The close proximity of the femoral vein has not in any recorded case given rise to trouble.

As to the propriety of employing drainage, in all cases where there is ascites, or where the state of the bowel is doubtful, a tube should be left so inserted as to drain the abdominal cavity; usually the tube should reach up to the ring only.

In considering the indications for the operation, a distinction must be made between strangulated and non-strangulated ruptures. Of the former, it may shortly be said that every case is suitable for the operation in which the patient and the strangulated bowel are in fair condition. The objections as to the enforced prolongation of the herniotomy, and the danger of cooling down a peritonæal surface, are, in ordinary cases, more than sufficiently counterbalanced by the advantages gained. The only contra-indications are such feebleness of the patient that the least prolongation of the operation might be fatal, or such a condition of bowel as to lead one to suppose the supervention of gangrene probable.

In the choice of cases of non-strangulated hernia, the exercise of a far greater amount of discretion is demanded, since here the operation is one of expediency, a serious one *per se*, in place of being a mere technical detail slightly lengthening an ordinary herniotomy. The principal points to be taken into consideration are the following :—

1. The age of the patient. As will be seen below, the operation should not be undertaken at either of the extremes of life. At both there is extreme difficulty in keeping the wound aseptic; old people are very liable to lung complication accompanied by cough, while in children it is difficult to ensure the necessary quiet.

2. The general health, as in the case of all operations of expediency, must be carefully gone into; a tendency to cough is naturally unfavourable.

3. The nature of the hernia. Many ruptures owe their origin to some radical defect in the conformation of the patient; as, for instance, general weakness of the abdominal walls, especially in the neighbourhood of the usual hernial openings, an excess of subperitonæal tissue with loosely attached or distensible parietal peritonæum, and perhaps abnormally long mesentery. Information on these points should be sought in careful examination of the patient, and enquiry as to the rapidity of development of the hernia, and evidence of such defects should carry considerable negative weight when the question of operation arises. Congenital herniæ, on the other hand, being unlikely to depend on any of these weaknesses of conformation, but simply arising from accidental patency of the inguinal canal, are *cæteris paribus* favourable cases for operative intervention.

The above points having been determined, the indications for operation are shortly :—(1) Excessive size, the hernia being beyond the control of a truss, and interfering materially with the patient's avocation; (2) Large size, with irreducibility, since if the operation accomplish nothing further, the hernia may at least be converted into a reducible one; (3) Irreducibility with troublesome intestinal symptoms, such as the vomiting sometimes observed in irreducible omental hernia; (4) Rupture in young patients, in whom its existence interferes with entrance into one of the public services, or into a public institution. Much care is necessary in the choice of cases coming under this heading, the state of the general health and the disposition being important considerations. The operation should not be performed on children below six years of age.

Lastly, as to the immediate and ultimate prognosis; here, as in the matter of indications, a hard-and-fast line must be drawn between cases of strangulated and non-strangulated hernia. The results quoted are derived from the statistics of Leisrink. The cases are of mixed nationality, but the results seem very much in accord with those observed by the writer of this article in a limited number of cases operated on in a London hospital.

First, as to strangulated hernia, Leisrink has collected 188 cases with 33 deaths, a percentage mortality of $17\frac{4}{3}$, which compares very favourably with that obtained in simple herniotomy. Recurrence is stated to have occurred in fifteen instances ($8\frac{1}{5}$ per cent.), and in 51 cases ($27\frac{7}{5}$ per cent.) no information was to hand on this point. These numbers appear to prove that the radical cure procedure in no way increases the danger of herniotomy; while, on the other hand, the necessity of opening the sac in all cases, entirely abolishing the dangers of "reduction *en masse*," or the reposition of strangulated or gangrenous gut—accidents occasionally met with in the days of extra-peritonæal operation—together with the disposition to early operation engendered by the advantages to be gained, would seem likely to still further improve its results.

Secondly, as to the results in non-strangulated hernia. Leisrink has collected 202 cases with fifteen deaths ($7\frac{2}{5}$ per cent.) In a smaller series of cases, not included in the above number, communicated to Leisrink by Dr. Benno Schmidt, we have 55 cases with 11 deaths (20 per cent.)

In cases coming into this category, we tread on new ground, since a radical cure, being the whole object of the operation, and not a secondary advantage gained in addition to the relief of strangulation, recurrence means absolute failure, and death, the loss of a patient who might otherwise have lived an indefinite period. It is, therefore, needful to carefully note the cause of death in Leisrink's cases. (In Benno Schmidt's we have no details.) Nine cases ($4\frac{1}{3}$ per cent.) of the whole number died from septic infection, a source of danger which should theoretically be *nil*, and in any case the percentage is too high. Of the remaining six, two died of embolism, one cerebral, the other pulmonary; one from an intercurrent attack of pneumonia eighteen days after the operation, and when the wound was

healed; and two others from internal hæmorrhage. Of these six deaths little can be said, as, with the exception of the two cases of hæmorrhage, the causes were such as may follow any operation of expediency. The two cases of hæmorrhage point to the necessity of care in the arrest of bleeding from the scrotal vessels (the writer of this article has known a case in which death occurred from the same cause, the blood flowing into the peritonæal cavity and into the large antiseptic dressing); and they considerably strengthen the reasons for excising the neck only rather than the whole sac in large herniæ. The non-occurrence of peritonitis is a striking fact, it is only noted three times in the whole number of cases. The percentage mortality may also be lowered to 5·9 by the elimination of cases below ten and above sixty years of age, an argument for the exclusion of cases beyond those limits.

Then, as to the question of recurrence. The total percentage reaches $33\frac{1}{3}$; for inguinal hernia $32\frac{1}{3}$, for crural 38, for umbilical and ventral $37\frac{1}{2}$. These numbers seem to correspond as to relative success in the different varieties with what has been observed in London hospitals; the only debatable point is the relative success in inguinal and crural herniæ, while the success in cases of umbilical hernia is striking when the high mortality of operations on strangulated ones is remembered. As in the question of recovery, so here it is evident that a too favourable prognosis should not be given. The only redeeming point as to this high percentage of recurrence lies in the fact that in a large number of cases the hernia could be retained by a truss, when that had been impossible before the operation. In the case of children under ten years of age the statistics are far from encouraging as to either point, in nineteen cases the percentage mortality was $10\frac{5}{6}$ (against $7\frac{1}{2}$ in adults), and of recurrences 21. This number of cases is, however, much too small to allow a definite judgment to be made, and it only remains to reiterate a hope, already expressed in this journal, that in the course of the present year a sufficient number of cases may be published by English surgeons to allow definite opinions to be formed, both as to the indications and as to the all-important point not touched upon, viz., the length of time for which a truss must be worn subsequently.

REVIEWS AND NOTICES OF BOOKS.

THE REGISTRAR-GENERAL'S REPORT FOR 1882.[1]

For any one who has a love of statistics there is no more fascinating or suggestive volume published than that which yearly issues from the General Register Office. The nation's internal history—its marriages and its child-bearings, its illiteracy, its carelessness and folly, its diseases and its accidents, its loss of life and its surrender of life—are all so vividly exposed in this Annual Blue Book, that the man must have the imagination of a broomstick who can see nothing in it but mere figures. The Registrar-General does his best to make it interesting, and in his introductory report points out many of the questions of vital importance suggested by a consideration of the succeeding tables. Few men, however, we fear, even in our own profession, quite realize the amount and value of the work done at Somerset House, and fewer still take an intelligent interest in it. And yet the compulsory collective investigation, which has been carried on at Somerset House for over forty years, is one of the most important works that the State is engaged in; and as the years and decades glide by may be expected to furnish us with ever more and more trustworthy guidance in matters affecting the social welfare. To take only a single instance of the sort of help that may in the future be expected from the General Register Office, in the course of last year the Registrar-General was asked by the Educational Department whether the statistics of his office showed any deterioration of health in the children of school age. He was asked, in fact, whether the belief as to the deleterious effects of educational over-pressure had any more substantial ground than the *ipse dixits* of the doctors, and the reports of scattered cases. And with the assistance of Dr. Ogle, he was able to show that while the general death-rate of children between the ages of 5 and 15 had fallen from 6·3 per 1,000 in the years 1861–70 to 5·1 in the years 1871–80, and the zymotic death-rate had fallen from 2·9 to 2·1, that from nervous diseases had remained stationary at 0·5. There has been a further fall, he also shows, in the two former categories in the years 1881 and 1882, but no fall in the category of nervous diseases. So far then the statistics, which, we may add, have been further elaborated by Dr. Rabagliati in last week's *Spectator*, tend to support the theory that there is a real injury to children from over-schooling; but the Registrar-General is compelled to add the caution that we must be very guarded in drawing conclusions from these figures; for "the causes of death to which children succumb are far from being stated in medical certificates with such care and precision as would justify us in attaching much practical importance to slight fluctuations under one or another heading."

This, indeed, has been the complaint in many succeeding annual reports, and though Sir Brydges Henniker admits a progressive improvement in accurate diagnosis and specification of causes of death, he finds it necessary to again appeal, as he did last year, to medical practitioners to use still greater care and precision in filling up death certificates. Every one will admit that this appeal is justified, and most will deplore that it should be necessary. In the year under consideration, for instance, the cause of death was simply stated as "dropsy" in as many as 1,852 certificates, and it must at once occur to the medical reader that where the diagnosis was of such a very amateur character, the treatment can hardly have been of a much higher order. Much of this inexact certification may, no doubt, have been due to carelessness, or to a deficient recognition of responsibility; but a layman would be warranted in assuming that some at least of these 1,852 cases would not have appeared any the sooner on the death register if they had been altogether deprived of the

[1] Forty-fifth Annual Report of the Registrar-General of Births, Deaths and Marriages in England. (Abstracts of 1882). London, Printed by Eyre and Spottiswoode.

advice of their medical attendants. In other cases the theory of carelessness is less tenable. In 453 cases, for example, the cause of death was certified as pyæmia or septicæmia, without further specification. The Registrar-General took the trouble in all these cases to send out letters of enquiry requesting further detail, and he succeeded in eliciting the information that 123 of these cases were connected with parturition, while 170 were due to diseases and injuries. The same process was gone through in the case of 432 deaths of women of child-bearing age, certified as due to peritonitis, and it was ascertained that in 179 the peritonitis was connected with parturition. The whole result of these letters of enquiry was to add no less than 428 deaths to those assigned to puerperal fever or to other incidents of childbirth, and to obtain a puerperal mortality of 5·09 per 1,000 children born, instead of the lower figure of 4·61, at which the carelessness and reticence of medical practitioners, if uncross-examined, would have left it. In connection with this subject the Registrar-General points out that there has been during the last two years a marked increase in the mortality from puerperal fever, with, at the same time, an increase in the mortality from erysipelas. "This coincidence" he adds "deserves careful consideration on the part of those engaged in midwifery practice." The increase is disappointing. The conscience of the members of the profession as to their share in the production of puerperal septicæmia has been so deeply moved of late years, and the teachings of both the carbolic and the cleanly schools have been so widely impressed, that we should naturally expect to find a diminution rather than an increase in the cases of puerperal infection. Sir Brydges Henniker's figures show either that the utility of antiseptic precautions in midwifery practice is overrated—possibly they make men bold to do things which they would not have done but for the fancied security derived from them—or else that the Listerian doctrine has not yet penetrated very far down in the profession. A well-known London accoucheur once said in our hearing that antisepticism had abolished all anxiety from midwifery practice. We doubt very much whether some at least of the unfortunate practitioners who recorded the 2,564 deaths from puerperal fever in 1882 would speak with so light a heart.

There are other points in which the want of precision in medical certificates of death interferes with the usefulness and trustworthiness of the Somerset House statistics. Some of the vagueness is no doubt due to the fact that science has not yet made up her mind on certain points, and cannot give authoritative teaching upon them. The average medical mind, for instance, is quite a chaos with regard to the proper nomenclature of cases of pellicular sore-throat, and the Registrar-General complains that it is not uncommon to find all the fatal cases of throat disease in some one medical man's practice in a small area returned as cases of diphtheria, while all those in the same area in a second man's practice are returned as ulcerated sore-throat or simply as sore throat. Hence all comparative statistics as to the prevalence and fatality of diphtheria are entirely untrustworthy. In the case of other diseases in which there is now a fair amount of precision in diagnosis, the vagueness of past records prevents us from drawing any reliable comparison. Thus we find in one of the most interesting tables in the present volume (Table 31, p. lx.), that since the years 1858–60, the mean annual mortality from cancer per 1,000,000 persons living has increased from 335·7 to 532, that from diabetes from 25·7 to 47, and that from diseases of the urinary system from 218 to 394. Such a bald statement would be a little startling were it not borne in mind that in the meantime the mortality from ill-defined and not specified cases has fallen from 2,290 per 1,000,000 to 1,154, and that some at least of this decrease must have contributed to swell the increase under the head of diseases so frequently overlooked as those we have mentioned. Another heading under which there has been a marked and progressive increase of mortality during the last quarter of a century, has been that of "premature birth," the statistics of which have risen from 379·0 in 1858–60 to 473·4 in 1876–80, the rate of 1882 being 471. The mortality from congenital malformation has also risen from 57·7 in 1858–60 to 85 in 1882. Now it is pointed out by the Registrar-General that much of this augmented infantile mortality *may be* connected with the marked increase in the employment of women in industrial occupations. That he cannot say *must be* instead of *may be*, is due to the fact that the certification of the causes of death in the case of infants has always been extremely vague, and that the apparently increased mortality from premature birth and congenital malformation may be really due to the transference of deaths from one cause to another. We think we have said enough to show how much the return for the work and money spent on the Registrar-General's Office depends on the careful and conscientious co-operation of the medical practitioner, how greatly it has been injured by careless certification, and how incumbent it is on all of us conscientiously to give what help we can towards making the Somerset House reports as trustworthy as possible. There are many other points suggested by the present volume which are well worthy of mention, had we space enough. But we must refer the reader to the book itself, which, with its predecessors, ought to be carefully studied by every medical reader.

ABSTRACTS AND EXTRACTS.

PHARMACOLOGY AND THERAPEUTICS.

The Excretion of Mercury.—A series of experiments undertaken by Dr. Schuster, of Aix la Chapelle, to determine the exact mode in which the excretion of mercury takes place after its continued medicinal employment, was published by him in 1881. He found that after treatment by inunction, the mercury was slowly but regularly excreted for as long a period as six months, being traceable both in the fæces and in the urine. In the latter, however, he occasionally failed to find any traces of it, although after a short interval it would appear again as freely as before. A fresh series of investigations recently recorded by him in the *Centralblatt für die Medicinischen Wissenschaften* (No. 16, 1884) have proved that this apparent irregularity of excretion was in reality due to the method of investigation, which he subsequently found to be in-

sufficient to detect known quantities of mercury which had been added to healthy urine. An improved chemical process employed by Dr. Schridde, capable of detecting one-tenth of a milligramme in a litre of urine, has proved that the excretion of mercury goes on continuously, with the urine as well as with the fæces, and by its means Dr. Schuster is still in a position to prove that this excretion does not continue for more than six months after the discontinuance of the use of the drug.

The Treatment of Lupus.—Believing that lupus is just as much a manifestation of scrofula as phthisis, or bone or gland disease, Mr. J. W. Taylor (*Birmingham Medical Review*) makes certain suggestions in accordance with that belief for the treatment of this disorder. The residence should be in a warm and dry climate, the house should be well ventilated, but free from draughts, out-door exercise should never be taken when the weather is cold and wet. The food should be good and varied. Cod-liver oil, when it can be taken, is strongly recommended, and Parrish's food has proved very useful. For local treatment Mr. Taylor recommends scraping with the curette in preference to caustics or scarification. It is best to attack a small part at a time, and remove the disease thoroughly; this treatment is best adapted to those cases where the new growth and ulceration proceed equally; when the latter is in excess, the disease generally gets well without any local remedy; when the former is in excess, free removal is the best treatment.

Iodide of Sodium *versus* Iodide of Potassium.—Not long ago we had occasion to advert to the use of the bromide of sodium, in lieu of its potassic congener; and now Dr. Berg, in the *Archives of Medicine*, April, 1884, enters a plea in favour of the iodide of sodium. Both from theoretical considerations and practical experience, he urges its substitution for the potassium salt, making the following claims for it: (1) It can be used therapeutically for almost all, certainly the chief, purposes for which the potassium salt is used, and, he believes, with similar beneficial effects. (2) It is more assimilable by the digestive organs locally and by the general system. (3) Many of the local and general undesirable effects produced by the potassium salt do not follow the use of sodium iodide. Dr. Berg therefore appeals to those having extensive opportunities to give it a fair trial.

Protracted Lethargy after large doses of Bromide of Sodium.—In the *Boston Medical and Surgical Journal*, March 13th, Dr. E. G. Cutler reports the case of a patient who, in trying to carry out an advertised "cure" for the morphia habit, had taken, according to directions, *sixty* grains of sodic bromide three times a day for the first day; three doses of seventy grains each on the second day; three of eighty grains on the third day—and so on, until, when one hundred and twenty grains had been taken thrice a day, the cure was to be complete. This programme was carefully followed out for a whole week, on the last day of which he could scarcely be made to swallow the prescribed doses. In four days later his lethargy was complete: no reflex action of any kind could be excited: nothing could be swallowed: respiration was slow and shallow: temperature slightly sub-normal: urine was secreted (but not voided) at the rate of about one ounce a day. The treatment comprised —enemata of milk, beef tea, with small doses of alcohol, of strychnia, and of nitre, and general faradization. On the fifteenth day the conjunctiva was found to be sensitive to touch: on the seventeenth he could be made to swallow, but only slowly, and after much persuasion: on the twentieth day he began to waken, and urine was, for the first time, voided without the aid of the catheter. The power of movement returned in the legs before the arms, and such complicated actions as feeding himself, buttoning the collar and the like, could not be performed for more than a fortnight after he had become thoroughly awake. No cutaneous eruption was observed. The patient was temporarily broken of his morphia craving, but ultimately resumed the habit. Similar cases, in one of which two and a-half ounces of the bromide were taken, and one which ended fatally, are also referred to.

Nitrate of Silver in Spinal Irritation.—Dr. Betz (*Memorabilien*, January,) strongly recommends this as a means of relieving the attendant pain, whatever may be the primary cause of this. A solution of 1 part of nitrate of silver to 100 of alcohol is thoroughly applied twice a-day not only to the painful parts, but also for some distance beyond these, and, when necessary, along the whole spinal column. The liquid penetrates quickly, and soon dries up, producing an agreeably cool sensation, and very seldom gives rise to any irritation of the skin. This painting the parts will have to be continued for weeks, or even months, especially if there is any disease of the spine itself present.

Surgical Employment of Iodoform.—At a discussion on this subject at the Riga Medical Society, Dr. Miram observed that iodoform did not merit the renown it had obtained as a panacea in all surgical maladies; for while its striking antiseptic qualities and handiness were acknowledged, its employment had its shady side, as when it gave rise to poisoning, to prevention of immediate union, and to the formation of iodoform abscesses. It required adaptation, in fact, to individual cases. In ophthalmology, Dr. Stavenhagen had found it useful in phlyctenæ, conjunctival ulceration, and affection of the lachrymal sac; but had been disappointed with it in pannus and blenorrhagic affections. Several speakers gave but a very qualified approval of its employment.—*St. Petersburger Medicinische Wochenschrift*, May 10.

Sulphate of Iron in Hemorrhoids and Proctocele.—Dr. Wimpelberg recommends an ointment, containing twelve grains of the subsulphate to the ounce, to be applied night and morning. In cases of proctocele, he uses the persalt internally, in doses of two grains, three times a-day, in conjunction with the local use of the ointment.—*New York Medical Journal*, April 12th, 1884.

The Treatment of Whooping-cough.—The *Midland Medical Miscellany*, of April 1st, contains an interesting paper on the treatment of whooping-cough, by Dr. Dolan, whose Fothergillian Essay on Pertussis is probably familiar to our readers. The whole of the remedies in common use, as recently compared in a paper by Professor Heubner, are considered, and tabulated as to results. Belladonna for general results, and salicylic acid, in the form of spray (½ to ½ per cent.), for immediate relief, are credited with the best average of efficacy. Dr. Dolan deduces, with some force, from this conclusion (the salicylic acid having, in his belief, merely a germicidal action) a support to the theory advanced in his previous essay of the fungoid origin of pertussis. The special form of microbe, rejoicing in the name of the bacillus pertussis, and believed to be pathognomonic of the disease, has been described and shown by Professor Berger. Dr. Dolan observes, however, that we must "recognise, as in phthisis, that the finding of the bacillus is only the first link, experiments must determine the connection between the organism and the disease." So obviously and readily contagious is pertussis, that such experiments, when performed, ought soon to furnish a definite conclusion.

Iodoform in Erysipelas.—There would seem to be no limit to the uses to which iodoform may be put in restoring the human form divine to its pristine vigour. In the May number of the *Practitioner*, Mr. Clark Burman commends it for erysipelas. He used a solution of one part of iodoform in ten parts of collodion, and found that after a single application of this the pain and heat were relieved, and that the tendency to spread ceased. This good result could not be attributed to the internal treatment adopted, nor to the collodion, because Sir James Paget expressly states that it does not check the spread of the disease.

REPORTS OF SOCIETIES.

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JUNE 5TH, 1884.

JONATHAN HUTCHINSON, Esq., F.R.S., President, in the Chair.

The Prevention of Blindness from Ophthalmia Neonatorum.

THE SECRETARY read the following report by the Committee appointed to investigate this subject:—

In answer to a very large number of enquiries from private persons, ophthalmic and lying-in hospitals, and from Institutions for the Blind, we have received 23 statistical replies, all of them from Institutions for the Blind.

Four of these, viz.: those of the Belfast Deaf, Dumb and Blind Institution, the London Society for Teaching the Blind to Read, the Blind School at York, and the Blind Institution at Hull are decidedly superior, being tolerably explicit. Moreover, the answers appear to us from other evidence to be trustworthy. In the first (Belfast), 30 per cent. of the persons concerned owe their blindness to Ophthalmia Neonatorum. In the second (the London Society, &c.), 20 per cent. are certainly blind from this disease, but from the extremely frequent occurrence of "congenital cataract" and "cause unknown" in cases of blindness from birth, we are of opinion that at least another 10 per cent. should be added, thus making again 30 per cent. In the third (the Yorkshire School), 41 per cent. are blind from this cause. And in the fourth, that at Hull, five cases out of fourteen personally examined by Dr. Rockliffe, 35 per cent., are with certainty attributable to the same disease.

The statistics of the other Institutions are so inexplicit as to be of little direct value, but their figures, so far as they go, point to about the same results. It will be observed that these numbers agree substantially with those of foreign investigators, notably those of Reinhard, who, on investigation of 22 German Blind Asylums, found 658 blind from this disease among a total of 2,165, = 30½ per cent.

The Committee also recommend the adoption by the Ophthalmological Society of the following resolutions, which they have slightly modified from those originally suggested by Dr. David McKeown.

(1) That the purulent ophthalmia of newborn infants being the cause of a vast amount of blindness, mainly because of the ignorance of the public regarding its dangerous character and the consequent neglect to apply for timely medical aid, it is desirable to instruct those in charge of newborn children by a card, in substance as follows:—

Instructions Regarding Newborn Infants.

If the child's eyelids become red and swollen, or begin to run with matter, within a few days after birth, it is to be taken without a day's delay to a doctor. The disease is very dangerous, and, if not at once treated, may destroy the sight of both eyes.

This to be distributed through the medium of the Poor-law and Birth Registration organisations of the United Kingdom. In England the Relieving Officer, and in Scotland the Inspector of the Poor should, in every case of labour under the Poor-law system, read to and leave with the person obtaining the order for medical aid, or the persons in charge of the patient, a copy of the card. In Ireland the card should be attached to the order for medical aid in such cases, and the person who gives the order and card should, before doing so, read the card to the applicant. The Registrar of births should read and hand to each person registering a birth a copy of the card.

(2) That the advocacy and aid of the medical press be solicited in drawing general attention, and especially that of the authors of text books on midwifery, of the lecturers on the same subject for students and midwives, and of the various institutions which train, and charitable institutions which employ midwives, to this important subject.

(3) That a copy of the first resolution be forwarded to the respective Presidents of the Local Government Boards of England and Ireland, and of the Board of Supervision in Scotland, and such other persons, if any, as may be necessary, and that a deputation be appointed to wait upon the said Presidents and other persons, if necessary, and urge upon them the official adoption of the views therein expressed, and to take such other steps as they consider necessary.

Signed, FREDK. MASON,
Chairman of the Committee.

This report having been adopted, the following members of the Society were appointed to take charge of the report, in accordance with Resolution 3, viz., Sir William Bowman, Bart., F.R.S.; Mr. Jonathan Hutchinson, F.R.S.; Mr. Brudenell Carter, Mr. Tweedy, Dr. David McKeown and the Secretaries.

On the motion of the President, a vote of thanks was accorded by acclamation to the Committee who had drawn up this report, and to the representatives of the Obstetrical Society who had given valuable aid to that Committee.

Exhibition of Cases, Specimens, &c.

Dr. P. H. MULES exhibited a coloured drawing of a typical example of miliary tubercle of the choroid, as seen with the ophthalmoscope, as well as microscopical sections of the tubercles. The patient was a girl, aged 10, who died of acute miliary tuberculosis fourteen days after the apparent commencement of her illness. After death, miliary tubercles were found in the lungs, kidneys, liver, spleen, and cerebral meninges, as well as in the choroid. The drawing shown was made two days before death; there was double optic neuritis, and surrounding the disc in each eye were eight or ten circular nodules, yellowish white at the centre, and passing gradually at the periphery into the colour of the natural choroid. The surface of several of the choroidal tubercles was traversed by a retinal vessel. The tubercles had been examined for bacilli, but none were found. Dr. Mules thought that the ophthalmoscopic appearances, taken alone, were hardly sufficiently diagnostic of tubercle to separate it from other choroidal affections, notably the very early stage of choroiditis disseminata, but, taken in connection with other symptoms, they afforded valuable confirmatory evidence.

Mr. TARGETT showed, for Dr. Brailey, a man, aged 56, who exhibited in a remarkable manner the phenomena of the case described by Messrs. Gunn and Anderson at the last meeting of the Society. He had on the right side paralysis of the external rectus, with dilatation and immobility of the pupil. He gave a clear history of uniocular diplopia on this side, but only in the outer half of the field of vision. Now that the optic discs had become atrophic, this symptom was no longer noticeable. Perception of red and green was wanting. The right knee-reflex was much weaker than the left. Without any local cause he had nocturnal incontinence of urine. He had none of the usual symptoms of locomotor ataxy. He was probably suffering from constitutional syphilis.

Mr. ADAMS FROST exhibited, for Mr. Waren Tay, a case of serous cyst of the iris, in a man, aged 28. Twenty-four years ago the eye had been injured by a fork, and the development of the cyst dated from that time. Ten years ago an iridectomy was performed. The cyst occupied the upper and inner quadrant of the anterior chamber, extending quite up to its periphery, and reaching about halfway across the pupil. The lower part of its posterior surface was lined by a layer of uveal pigment. The cyst itself was sufficiently transparent for a fundus-reflex to be obtained through it in several places. The pathology of the affection was discussed, and the papers by Mr. Hulke (*Ophthalmic Hospital Reports*, vol. vi.), and M. Wecker (*Gräfe-Saemisch Handbuch*, vol. iv., p. 540) referred to. As bearing on the question of treatment, it was mentioned that, in one of Mr. Hulke's cases, the increased size of the cyst gave rise to sympathetic irritation in the other eye, which subsided on excision of the cyst. In other cases, on the other hand, its excision had been followed by loss of the eye from suppuration. As the cyst in this case was in contact with the cornea and lens, and extended quite up to the periphery

of the anterior chamber, its removal would probably be a matter of difficulty and danger.

Messrs. CRITCHETT and JULER exhibited a living case of disseminated choroiditis occurring in a woman, aged 46. There was a distinct history of syphilis, acquired five years ago. The case was chiefly interesting on account of the great number of large and small yellowish-white patches distributed over the fundus, including the yellow-spot region of the right eye. The left eye had become totally blind three years ago, presumably from the same cause. Very little pigment was to be seen, and the visual acuteness and visual field of the right eye were normal.

The PRESIDENT observed that the form of choroiditis was very unusual, owing to the small size and large number of the white patches. He recalled one case which he had seen, where the patches were similar but not quite so numerous. It occurred in a young lady, aged 15, whose father had suffered from syphilis. There was no other trace of hereditary taint, but the patient recovered rapidly under anti-syphilitic treatment.

Messrs. CRITCHETT and JULER also showed a boy, aged 14, who had sustained a severe wound of the scalp on February 7th. Four days after this accident the eyes became convergent, and he suffered from double vision. There was no loss of consciousness at any time. He made an excellent recovery from the scalp injury, but the squint remained. The convergence was at first attributed to paralysis, but on examination the patient was found to be hypermetropic (5 D). Both the primary and the secondary deviations were equal. The left field of fixation was normal, and the right only indicated a deficiency in the power of the external rectus. The squint was therefore considered to be chiefly concomitant.

In reply to Mr. NETTLESHIP, Mr. JULER said that there had been diplopia, showing that the squint was recent.

The same gentlemen also showed a boy suffering from lamellar cataract, on whom iridectomy had been performed in one eye, and iridodesis in the other.

Messrs. COWELL and JULER exhibited a glycerine jelly preparation and microscopic sections of a case of sarcoma of the choroid occurring in a woman, aged 37. The case was shown at the meeting of the Society in March last, when the tumour could be seen with the ophthalmoscope in the upper and outer quadrant of the fundus. After the March meeting, the whole of the retina became detached, and the eye was excised. Up to the present time there had been no recurrence of the disease.

Acute Optic Neuritis associated with Acute Myelitis.

Dr. SHAKESBY read a paper, prepared jointly by himself and Dr. J. B. Lawford, on this subject. The patient, a girl, aged 17, was admitted into the Royal London Ophthalmic Hospital, under the care of Mr. Streatfeild, on November 26rd, 1883. There was nothing noteworthy in the patient's previous history, and there were no grounds for suspecting syphilis. Her vision began to fail without evident cause on November 9th, and by November 13th she was quite blind. She had neither headache, sickness, paralysis, nor fits, but simply loss of sight. She was a fairly healthy-looking girl, but on examination severe double optic neuritis was found, and she had no perception of light. Thirty-three days after her vision failed she began to complain of paralysis, with loss of sensation, first in the left leg, then in the right. Anæsthesia gradually spread up the trunk and involved the arms, and she had incontinence of the evacuations. During the latter part of her illness she was under Dr. Bristowe's care, in St. Thomas's Hospital. Cystitis came on, she passed offensive purulent urine, and the temperature reached 105° Fahr. Finally she died of peritonitis 62 days from the time when her vision first failed and 29 days after the first appearance of paralysis. At the necropsy, peritonitis, cystitis, and suppurative nephritis were found. To the naked eye, the brain and its membranes and the cerebral sinuses appeared healthy, but there was softening and great congestion of the cervical region of the spinal cord over a space two or three inches in length. The rest of the spinal cord and its membranes seemed healthy. Microscopic examination revealed the presence of acute inflammation in the softened cervical region, in the columns of Goll above it, and in the lumbar enlargement, as well as in the optic nerves, discs, chiasma, and tracts. There was slight inflammation of the meninges about the chiasma, and on the under surface of the frontal lobes. The interest of the case, in the opinion of the authors, lay in the association of acute optic neuritis with acute inflammation of the spinal cord. It had long been known that slight changes occasionally occurred in the fundus of the eye in cases of injury to the spinal column and cord. But it was only comparatively recently that attention had been called to the association of acute optic neuritis with myelitis, independently of injury. Clifford Allbutt, Sequin, Noyes, Steffen, and Erb had noticed its occurrence, and more recently Dreschfeld and Chisholm. The conclusion which Dr. Gowers and Dr. Dreschfeld drew with regard to these cases was, that the optic neuritis and the myelitis were associated phenomena due to a common cause, but that neither depended directly on the other. The case detailed supported this view, for the optic neuritis preceded the myelitis by a month, and there was no evidence at the *post-mortem* examination of any anatomical connection between them. Clinically, such cases were of great importance, as they simulated disease of brain; and their occurrence, however rare, detracted somewhat from the significance of acute optic neuritis as a sign of intracranial disease.

Mr. MULES was able to recall one of the cases referred to, as it had been under his own care at one time. The patient had been taken into the hospital under the impression that it was an example of neuritis due to intracranial disease; subsequently, when incontinence of urine and evacuations began to be troublesome, the patient was transferred to the care of Dr. Dreschfeld.

Recovery from Amaurosis in Infants.

Mr. NETTLESHIP read a paper founded on a number of cases of temporary blindness, or partial amaurosis, observed in infants. He dwelt especially on the question of prognosis, and pointed out that there was a fairly well defined group of cases where the amaurosis was not recovered from; sight was absent or defective from birth, several children of the same parents were often affected, and the parents were often akin. Some of the patients were idiotic, others stupid or weak, others quite intelligent; the optic discs were either healthy or atrophied; in the milder cases, where sight was partly retained, there was often total colour-blindness; in cases of absolute blindness, the pupils still re-acted to light, which appeared to show that the centre of pupillary action in or near the corpora quadrigemina remained intact, although higher centres were absent or atrophic. In cases of amaurosis, in which recovery was probable, the history was of great assistance: it was generally stated that the child could see well for some months, or even years after birth, and then it lost its sight during an illness with cerebral symptoms, often diagnosed as meningitis; the optic discs, in the great majority of cases, were either healthy, or showed merely some slight doubtful pallor; frequently the power of walking, standing, or even sitting, was lost during the same illness. The blindness appeared to last from one to six months, and recovery took place slowly. He thought that in all these cases intracranial inflammation certainly took place, and perhaps spinal mischief as well. The mode by which blindness was produced must remain in doubt until ophthalmoscopic exa-

INTERNATIONAL HEALTH EXHIBITION.

CONFERENCE ON PUBLIC HEALTH.

Monday, June 6th.

Dr. T. J. Dimmock in the Chair.

Dr. Dixon read a paper on "The Compulsory Notification of the Movements of Persons Suffering from Infectious Disease."

Dr. Dixon said that the object of the paper was to show that the present system of compulsory notification of infectious disease was inadequate, and to suggest a remedy. The present system was defective in that it did not provide for the notification of cases of infectious disease occurring in persons who were not permanently resident in the district in which they were living at the time they were taken ill. Persons who were visiting or staying in a district, or who were passing through it, were frequently taken ill with infectious disease, and the fact was not known to the local authority. Such persons were a source of danger to the inhabitants of the district in which they were living at the time they were taken ill, and also to the inhabitants of the districts through which they passed on their journey. Cases of infectious disease occurring in persons who were not permanently resident in the district in which they were living at the time they were taken ill were frequently not notified to the local authority, and the fact was not known to the local authority. Such persons were a source of danger to the inhabitants of the district in which they were living at the time they were taken ill, and also to the inhabitants of the districts through which they passed on their journey. Cases of infectious disease occurring in persons who were not permanently resident in the district in which they were living at the time they were taken ill were frequently not notified to the local authority, and the fact was not known to the local authority. Such persons were a source of danger to the inhabitants of the district in which they were living at the time they were taken ill, and also to the inhabitants of the districts through which they passed on their journey. Cases of infectious disease occurring in persons who were not permanently resident in the district in which they were living at the time they were taken ill were frequently not notified to the local authority, and the fact was not known to the local authority. Such persons were a source of danger to the inhabitants of the district in which they were living at the time they were taken ill, and also to the inhabitants of the districts through which they passed on their journey. Cases of infectious disease occurring in persons who were not permanently resident in the district in which they were living at the time they were taken ill were frequently not notified to the local authority, and the fact was not known to the local authority. Such persons were a source of danger to the inhabitants of the district in which they were living at the time they were taken ill, and also to the inhabitants of the districts through which they passed on their journey.

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which was in most places carried out on the same plan as when dust was a marketable commodity. Circumstances had entirely changed, and the Sanitary Authorities should everywhere be their own scavengers, and not trust to the contractors. The neglect by the dust-men of those streets where the people were too poor to fee them for removing it, was a great hardship. Combined drainage of several houses was a source of great inconvenience and danger, since the stoppage of the drain in one house affected others at the same time.

Dr. ALFRED CARPENTER urged the inspection of sanitary arrangements not only at the time of building, but periodically afterwards, and also the employment of all means, especially of gas for cooking, by which the accumulation of dust and consequently the cost of its removal might be diminished.

Capt. GALTON considered that in all new streets a passage giving access to the rear of the dwellings would greatly facilitate the removal of dust, besides giving greater opportunity for the circulation of air, and he regretted that this had been ignored in re-building over old properties. To this defective circulation of the air, he attributed the well known higher death-rate observed in densely peopled localities. And yet, in a block being erected by the Metropolitan Railway Company in the Minories, a closed central court was to be divided by a cross block into two wells of sunless stagnant air!

Dr. Bartlett, Dr. Bernays, Dr. Slater, Mr. Robbins, and other gentlemen also took part in the debate, Dr. BERNAYS insisting that water for drinking should always be drawn from the main. The water supplied by the companies was really as good as could be reasonably demanded, by far the greatest amount of pollution occurring in the storage.

OBITUARY.

PROFESSOR SAMUEL D. GROSS.

To the notice of the death of this celebrated surgeon which we have already given, we may add a few particulars of a career which has been so active and so influential in the United States. It is true that his works have never attained in this country the authoritative position which they hold in the United States, but all must admire his fertile industry, and the admirable use which he made of the opportunities of a long and active life. Quite independently of his reputation as a skilful surgeon, his high principles and ready eloquence raised him to the position of the representative of American Medicine, and in that position he was received and honoured whenever he visited Europe.

Born at Easton, Pennsylvania, in 1805, Samuel D. Gross had the good fortune to become one of the pupils of Prof. McClellan, of Philadelphia, who was greatly interested in the foundation of Jefferson Medical College, at which Gross graduated, and in which he was hereafter to become celebrated as a teacher for twenty-six years. Before this came to pass, however, he filled posts of importance at Ohio, Louisville, Cincinnati, and New York, always pushing, wherever the centre of professional activity, either by publishing his own works or the translations of others, and by the encouragement or foundation of various medical institutions. At Cincinnati he delivered the first course of lectures on pathological anatomy ever heard in America, and his "Elements of Pathological Anatomy" was the first systematic work on the subject that appeared there. Soon after returning to Philadelphia, the first edition of his "System of Surgery" appeared; this has since gone through five other editions, and will be the work through which his name will remain one of authority. He produced various other works of less importance, as his treatises on "Diseases of the Urinary Organs," "Wounds of the Intestines," "Foreign Bodies in the Air Passages," &c., and his contributions to the medical periodical press have been very numerous. His eminence as a surgeon and as a representative man was freely acknowledged in this country, wherein he has received honours from both our universities, and just before his death from that of Edinburgh, and the principal medical societies. After a laborious career as teacher of surgery, extending over forty-two years, he resigned his chair at Jefferson College in 1882. "As a teacher, a lecturer, and an operator," the *Philadelphia Medical News* observes, "Dr. Gross was greatly admired. He was an untiring student, systematic and economical of his time, and while punctually fulfilling his engagements as professor and practitioner, he was enabled to keep himself thoroughly informed in medical and general literature. His extensive knowledge of disease, added to a great faculty in diagnosis, enabled him to grasp at a glance the salient features of a case. He was never satisfied unless his work was thoroughly done, and felt that in every case he had a triple duty to perform—first, and above all, to his patient, secondly to his pupils, and lastly to himself. He was always a warm advocate of a higher grade of education, and a more thorough course of instruction for the students. Whether as surgeon, author, or lecturer, the stamp of his individuality has been indelibly impressed upon the history of science in America. He was never content simply to keep pace with the stride of scientific research, but has often been the pioneer to open up unexplored regions. With him science and humanity have gone hand-in-hand, and, as a result, the technical and general literature of the country has been enriched by his works, and humanity made happier by the greatness of his heart."

Dr. Gross died on May 6th, in the 78th year of his age having during the preceding three months exhibited failing strength, which was attended with derangement of his digestive power, and consequent death from exhaustion. At the autopsy there was found marked gastric catarrh, with irregular thickening of the mucous membrane, fatty heart, and a large cyst of the kidney. The brain weighed 48 ozs.; its convolutions were numerous, and its sulci deep. His remains were cremated at Washington, Pennsylvania, and then brought back to Philadelphia, under the escort of the family and friends of the deceased. The ashes, weighing about 7 lbs., were hermetically sealed in a tin box and placed in the coffin in which the body had been carried. On reaching Philadelphia, they were enclosed in a marble urn, unornamented and without any inscription, and placed in the Woodland Cemetery. The Jefferson Medical College intends establishing a Gross Professorship of Pathological Anatomy, and the American Medical Association will erect a statue to his memory.

GENERAL CORRESPONDENCE.

THE SANITARY CONDITION OF NICE.

[To the Editor of the Medical Times.]

SIR,—It may, I think, be of interest to your readers and to all those who are in any way concerned for the prosperity of the health stations on the Riviera, to be furnished with an accurate account of the epidemic of typhoid fever at Nice, in the autumn of last year. To the exaggerated reports which appeared in many newspapers, both in England and the Continent, it was in great measure due that the visitors to Nice and along the whole of the Riviera last season were far fewer than usual.

It is to be regretted that the Medical Society of Nice did not at once make known the results of the enquiry they instituted, since that would, I think, have done much to quiet the general anxiety on the subject. They have now, however, published them in their organ, the *Nice Médical*, and I ask for space to print the report in a condensed form, at the same time that I forward to you a copy of the original. On November 23rd, 1883, a sub-committee was nominated to draw up a set of questions, which were sent to all the medical men practising in the city, to which 63 returned replies. Eight stated that they had observed a greater number of cases of typhoid fever than usual in the previous autumn, and 16 others added that they had, during the same time, seen several instances of fever of a remittent type, similar to, though not identical with, typhoid.

In the town itself 156 cases of true typhoid had been noted in private practice, 73 in the Civil Hospital, and 38 in the Military Hospital; or altogether 265. In addition to these, 43 cases of remittent fever had been observed in general practice in the town. A few only of these cases had occurred in June, July and August, but the greater number in September and October. The disease reached its maximum of prevalence in October; it still continued, though with lessened frequency in the first half of November, but diminished with great rapidity in the second half of that month. Out of the 156 cases, 84 occurred in persons in comfortable circumstances, 20 among the working-classes, hospital cases, of course, excluded. Of the 156, 116 took place among the resident population, or among strangers resident in Nice for more than six months, and 12 among persons who had dwelt there for a shorter time. The cases were pretty equally distributed throughout the whole city; the barracks, on the Place St. Dominique, being the only spot that could be regarded as a focus of the disease.

The general sanitary condition of the dwellings in which fever cases occurred, is stated in 132 out of the 156 cases, and is said to have been good in 65 instances, apparently good in 6, tolerable in 38, and positively bad in 23. In 18 of these last cases, the bad condition of the privies, or water-closets, is especially noticed. The majority of cases were isolated; but once 3 cases occurred in the same family, 2 in five, and 2 four times in the same house, though not in the same family. With reference to the general character of the fever among the cases occurring in the town, it was benign in 53, moderate in 9, severe in 24, and dangerous in 31 out of 120 in which this point is referred to. The mortality in the town was about 16 out of 156, or 10 per cent.; 10 in 73 in the Civil Hospital, or 13 per cent.; and 3 in 38 in the Military Hospital, or 8 per cent.; or in other words, the total mortality was 29 in 265, or 11 per cent. If one assumes the number of cases not reported by the few medical men who made no report to have been 35, we arrive at a total of 300 cases, and a mortality of about 33; neither a large number nor a high mortality for a city whose population, exclusive of visitors, is between 70 and 75,000. It will, moreover, be observed that the epidemic began at a time when those who resort to Nice in quest either of health or of amusement, had already quitted it, and that it had almost ceased before the return of the greater number; for at the time of the publication of the report on December 7th, only 6 cases had occurred in the town since the 14th of November, and none at all in the Military Hospital.

At Nice, as often happens elsewhere, good has come out of evil. The conviction has forced itself on almost all, that perfect frankness is invariably the best policy, and that the endeavour to conceal a known evil issues only in gross exaggeration of its extent.

It has further awakened the authorities of the city to a perception of the need for immediate action, in order to improve in all respects the sanitary condition of the town. The eminent engineer M. Durand-Claye has been called in to advise as to the thorough drainage of the town, an enterprise the difficulty of which will be at once appreciated by all who bear in mind that the Mediterranean is a tideless sea.

A special sub-commission of the municipality has been formed, under the name of "*Commission d'Hygiène et de Publicite*," to study all questions connected with the sanitary state of Nice, and the publication of its vital statistics. The creation of a *Bureau d'Hygiène* has been resolved on, such as exists at Havre, Rheims, Nancy, and other towns in France, and which answers to the Sanitary Authority in England, and controls the work done here by the Medical Officer of Health and his subordinates.

It must not be forgotten that sanitary science, and boards and officers of health were unknown in this country fifty years ago. We must not then criticise too severely the imperfect projects of our neighbours, nor wonder that the steps of those to whom a road is altogether new should sometimes falter. But more than this, we are bound, at least to my thinking, to do our best to help every effort, and not, when in quest of health or of pleasure we go to regions where both are proffered with a lavish hand, act as though we owed nothing in return, and murmuring at ignorance we do nothing to enlighten, and complaining of defects we do not seek to remedy, waste in idle dissipation or ignoble sloth the wealth and time and talents lent to us for others as well as for ourselves.

I am, Sir, yours, &c.

C. WEST.

Bolton Row, W., June 6th, 1884.

HYDRO- AND PYO-SALPINX.

[To the Editor of the Medical Times.]

SIR,—In reply to Dr. Horrocks, permit me to say that two classes of cases are evidently mixed up in his mind, those in which rupture takes place and proves fatal by general peritonitis (and this I fancy must be confined to pyo-salpinx), and those cases in which rupture does not occur, but where the sufferers go on year after year unrelieved, wandering about from hospital to hospital. I gave him a case of that sort, and gave him names of men who had had the patient under care, and if he has not been able to identify her it is no fault of mine.

I said at the Obstetrical Society, and I say again, that it is extremely probable that few of the cases of rupture followed by acute peritonitis are got into hospital. I had no idea that the disease was so prevalent or so fatal that in one hospital, the Middlesex, fifteen such cases could be found, with one-half of them fatal, in three years. Therefore, I said in my letter that I had clearly under-estimated the fatality of the disease. We can form no idea yet, perhaps we never shall, as to the proportion between the total number of cases of the disease and those in which fatal rupture occurs, but it is perfectly certain that the total number of cases wandering about the world is very large. At the discussion on the subject at the London International Medical Congress, Sir Spencer Wells expressed the opinion that they must all go to Birmingham. Though there is more truth in this than he intended, it is perfectly clear that they exist abundantly in New York, Liverpool, and elsewhere, when they are properly looked for, and they cannot be rare at Guy's Hospital. I believe they constitute about two per cent. of the total number of out-patients at a special hospital, and I have not the slightest doubt but that there are fifteen or twenty such cases attending the out-patient department of Guy's Hospital under Dr. Horrocks' care at the present time. Dr. Horrocks claims to have found one at last and to have cured it without the knife. He may be perfectly correct, but he must forgive me if I doubt him. When he has had more experience in these matters, he will be less certain of his diagnostic powers. For my own part, I am never sure of my diagnosis until I have the diseased appendages outside. I have now had a very large experience of cases that have not got well without operation, but I have not had a shadow of reason to believe that I have ever seen a case get well in any other way. I do not deny that they may, they possibly do in large numbers, but I have seen none, and the physical conditions of the disease certainly make such a result look very improbable. At any rate, when a woman has, in her opinion, and the opinion of her medical advisers, suffered sufficiently from what Dr. Horrocks calls "local applications and internal remedies" at the unavailing hands of the physicians, she had better be turned over to the surgeon for the removal of her diseased appendages, and if she has the history and record of symptoms which I have over and over again indicated, the chances are four out of five that she has occluded and distended tubes, curable by nothing short of surgical interference. Dr. Horrocks clearly has either forgotten or has never read the statement I have often made, that all these cases, without exception, have been long under either my own care or the care of others, and that the "local applications and internal remedies" have proved useless—often they have proved disastrous.

I am, Sir, &c.,

LAWSON TAIT.

Birmingham, June 9th, 1884.

THE ETHICAL COMMITTEE OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—Towards the end of last year a complaint was made by a medical officer of one of the smaller hospitals of London as regards the conduct towards him of two of his colleagues. The matter was referred to the Arbitration of the Ethical Committee of our branch, and after bestowing on it much time and care, an award was arrived at which was subsequently considered and confirmed by the Council of our branch, and signed by me as Chairman of the Committee and as President of the branch.

This award was communicated to the three parties specially interested, and it was hoped that the result would be that all past differences would be forgotten, and that for the future complete forbearance would be shown by the several parties concerned towards each other.

I extremely regret to find that this award has been recently—after a lapse of five months from the time it was made—reprinted and extensively circulated, not only in England but in Scotland, without any word of explanation as to who issued it; and my name being attached to it, the circular has the appearance of being forwarded by myself, and with the sanction of the Council.

I am in consequence obliged to state that the reprinting of the award has been done, and the circulation of it has been made, entirely without my sanction or knowledge, and without the sanction or knowledge of the Council; and at the meeting of the latter yesterday, I was unanimously requested to state that it was never intended that the award should be used in such a manner as it has been, and that the reprinting and circulation of it have the complete disapprobation of the Council.

I am, Sir, faithfully yours,
CHARLES J. HARE, M.D.,
President of the Metropolitan Counties Branch of the British Medical Association, and Chairman of the Ethical Committee of the Branch.

Berkeley House, Manchester Square, W.,
June 7th, 1884.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE ordinary meeting of the Council was held on Thursday last. The election of Conservator of the Hunterian Museum (in succession to Professor Flower) was postponed until Thursday next. The Examiners in Medicine and Midwifery were re-elected. A vote of thanks to the President for representing the College at the Tercentenary Festival of the Edinburgh University was passed. The nomination of candidates to the various professorships was next proceeded with: Mr. Wood and Mr. Lund in Surgery; Professor Schäfer as Arris and Gale Lecturer on Physiology: Messrs. W. K. Parker, Brailey, Hill, and Treves to the various lectureships in connection with the Museum. The proposal for scheduling the physiological subjects for examination was referred to the Nomination Committee to report upon.

Mr. Heath gave notice of motion "That an extraordinary meeting of Council be held to consider the mode of electing the President, and the alterations to be made in the method of proceeding in that election."

A letter was read from Dr. Edwin Morris, suggesting, among other things, that alterations in the charters which do not give equal electoral rights to Fellows and Members would not be generally acceptable; that the President be elected from among the general body of Fellows and Members by the Council. It was decided that the letter be acknowledged, and that the writer be thanked.

The Council then adjourned.

ASSOCIATION OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

AN influential meeting of Fellows of the Royal College of Surgeons was held on Thursday afternoon, at the Rooms of the Medical Society. Mr. Paul Swain (Plymouth) was voted into the chair. He remarked that the immediate cause of the formation of the Association was the rejection by the Council of the College of Surgeons of the resolutions which were passed on March[29th last. He felt that the old Association, after the statement made by Mr. Wheelhouse at the College on that occasion, had practically ceased to exist. It appeared to him, therefore, needful to start a new Association, and up to the present time, no less than 200 Fellows had joined. The reasons why such an Association should be formed were twofold. First, to extend and maintain the rights of the Fellows; secondly to promote necessary reforms. With regard to the first, he considered it advisable that they should have the right to discuss the annual report, if not to elect the President. At any rate, the President should no longer be elected by rotation. There were many matters requiring reform, *e.g.*, at the present moment all the Members of the Court of Examiners were on the Council. This was an unfair preponderance, and five should be elected from outside that body. They should not be eligible for re-election at the end of five years. With regard to the members, he thought they had certain corporate rights which should be recognised, and he advocated their admission to meetings, with the right of speaking at them.

Mr. Tweedy moved, and Mr. Allingham seconded, "That a Society be formed to promote the general interests of the Fellows, and to consider all matters relating to the constitution, government, and administration of the College, whether in its corporate, examining, academical, or political capacity, and that this Society be called 'The Association of the Fellows of the Royal College of Surgeons of England.'"

This resolution was passed unanimously. Office bearers were then appointed—President, Mr. G. D. Pollock; Treasurer, Mr. Willett; Hon. Secretaries, Mr. Morgan and Mr. Bruce-Clarke, and a large committee was elected.

Mr. Pollock now took the chair, and the formal business of the meeting was entered upon.

It consisted chiefly in considering and re-affirming the following resolutions, which were passed at the meeting of Fellows and Members at the College of Surgeons in March last:—

(1) "That in the opinion of this Association it will materially conduce to the welfare of the College that the Fellows and Members should be invested with a larger share of its management."

(2) "That it is desirable that no alteration in the constitution or relations of the College shall be effected without the consent of the Fellows and Members convened to discuss such alteration."

(3) "That there shall be an annual meeting of the Fellows and Members, at which the annual report of the Council shall be presented, discussed, and if approved, adopted."

It was then moved by Mr. John Morgan, and seconded by Mr. Swain, "That a request be forwarded to the Council of the Royal College of Surgeons of England to receive a deputation from this Association, and that a Sub-Committee be formed to represent the opinions of this Association to the Council of the College, and to take such steps as may seem desirable to further the objects of this Association."

It was unanimously decided that each associate should contribute five shillings towards the expenses of organization.

UNIVERSITY OF CAMBRIDGE.—First examination for M.B. Degree. The following have been examined and approved:—

Arkwright, Trinity; Armitage, Trinity; Barker, Catharine's; Barnard, King's; Barton, Caius; W. H. Beaumont, Down; Bickersteth, Trinity; Blaikie, Caius; Blaker, Cavendish; Bond, John's; Bowen, King's; Bradley, Caius; Brooke, Pembroke; E. Browning, Clare; Bulstrode, Emmanuel; Burd,

Caius; Carey, Emmanuel; Carter, Pembroke; Cautley, King's; Cocksedge, Caius; Colclough, Caius; E. Hunt Cook, John's; Cooper, Caius; Copeland, King's; Fox, Trinity; Cresswell, Cavendish; Crisp, Caius; G. H. S. Daniell, Caius; Danials, Trinity; De Jersey, Pembroke; Dickenson, Caius; Dickenson, Down; Dickson, Jesus; Douty, King's; W. H. Dumergue, Corpus; Duncan, Caius; A. C. Dupp, Corpus; England, Caius; Evelyn, Caius; Ferguson, Caius; Fitzgerald, Caius; M. G. Foster, Trinity; H. A. Francis, John's; Gervis, Trinity; Goodman, John's; Hamer, Christ's; Hardwicke, non-coll; Harrison, John's; Heberden, Jesus; Hewer, non-coll.; Heley, Pembroke; Holden, Caius; Hopkinson, Emmanuel; Hounsell, Caius; Howard, Trinity; E. L. Jones, non-coll.; H. R. Jones, John's; W. Kayess, Caius; Kent, Caius; Kidd, Trinity; King, Cavendish; Lambert, Pembroke; C. W. Leaf, Trinity; Ledlie, Christ's; Light, Clare; Lipscombe, Caius; G. T. Lloyd, John's; Luard, Catherine; H. H. Maclure, Pembroke; M'Conkey, Caius; Macdonald, Jesus; Macpherson, Trinity; Major-Brown, Downham; W. Malden, Trinity; Manby, Catherine; Manners, Pembroke; A. L. Marshall, Clare; May, Trinity; Michell, Caius; Miley, Trinity; Morrice, Trinity; Newton, Pembroke; Neilsen, Caius; Ogilvie, King's; Olive, John's; Panting, King's; Parker, Catharine's; G. H. Pearce, Cavendish; Penny, Queens'; Pearson, Trinity; C. S. Pollock, Trinity; Prowse, non-coll.; Punch, John's; Redmayne, Trinity; Renfry, Christ's; R. J. Roberts, non-coll; Rowe, Pembroke; Rutherford, Trinity; G. R. Sauaders, Caius; F. W. Saunders, Trinity; Savory, Cavendish; Scott, Caius; Servaes, King's; Shore, John's; Sibley, Pembroke; Skelding, Caius; Smyth, King's; Sprigge, Caius; M. H. Spencer, Trinity; D. P. S. Stephens, Selwyn; Tatham, Clare; E. Taylor, Pembroke; Van, Caius; Weber, Trinity; Webster, Caius; F. Westcott, Peterhouse; Whitby, Emmanuel; Wilde, Clare; Williams, A. H. John's; Roll Wingfield, Christ's; Wynne, Catharine's; Yeoman, Pembroke.

ROYAL COLLEGE OF SURGEONS.—The following members of the College having undergone the necessary examinations for the Fellowship, at meetings of the Court of Examiners, on the 29th, 30th, and 31st ultimo, were reported to have acquitted themselves to the satisfaction of the Court, and at a meeting of the Council yesterday, the 12th instant, were admitted Fellows of the College, viz.:—

Messrs. George Pearce, M.D., St. Andrews, Leicester, diploma of membership dated April 25th, 1862, and J. S. Kaeser, M.D. Bâle, Queen Anne Street, W., April 14th, 1882, students of St. Thomas' Hospital; Thomas Thyne, M.D. Edinb., Twickenham, July 28th, 1863, of the Edinburgh School; Henry Briggs, M.B. Edinb., Liverpool, July 24th, 1877, of the Liverpool School of Medicine; J. W. Sanders, L.R.C.S. Lond., Bethnal Green, November 17th, 1878; R. Howell Perks, L.R.C.S. Lond., Hampstead, July 24th, 1881, and L. Albert Dunn, M.B. Lond., Brighton, April 20th, 1882, of Guy's Hospital; W. George Evans, L.R.C.S. Lond., Colchester Street, S.W., May 20th, 1880, and E. Hermus Holthouse, M.B. Cantab., Helidon, Northampton, January 21st, 1881, of King's College Hospital; G. C. Robins Bull, L.R.C.P. Lond., Dover, July 21st, 1880, of St. Mary's Hospital; C. Egerton Jennings, L.R.C.P. Lond., Malmesbury, April 19th, 1881, of the London Hospital; Charles Stonham, Gower Street, W.C., November 17th, 1881, of University College Hospital; J. Macdonald Rogers, L.S.A. Berners Street, W., January 26th, 1883, and J. Bland Sutton, L.R.C.P. Lond., Gower Street, W.C., April 4th, 1882, of the Middlesex Hospital; R. L. Knaggs, B. A. Cantab., and L.R.C.P. Lond., Putney, November 14th, 1883, and Walter Fowler, M.A. Cantab., Old Burlington Street, November 15th, 1883, of the Cambridge School; Sinclair White, M.D. Dub., Sheffield, of the Galway School of Medicine, and J. Follett Bullar, M.B. Cantab., Southampton, July 30th, 1880, of St. Bartholomew's Hospital.

Three other candidates were reported to have passed their examinations to the satisfaction of the Court, and on their attaining the legal age of 25, will receive their diploma. Seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months. Twenty-eight were examined as compared with eighteen at the corresponding period of last year. At the same meeting:—

Mr. W. J. Collins, M.D. Lond., Albert Terrace, N.W., July 28th, 1880, of St. Bartholomew's Hospital;

who passed in November last, having since attained the legal age of 25, was also admitted a Fellow of the College.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 5th, 1884:—

Lewis Brown, 28, Chorley Old Road, Bolton, Lancashire; James Russell Watson, 31, Moore Street, Chelsea.

The following gentlemen also on the same day passed their primary professional examination:—

Philip Henry Hensley, King's College; Frederick William Berry South, Guy's Hospital.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—The following have been admitted Licentiates:—

Edmund Barry Denby, Dublin; Thos. Brown Cross, Scarborough; George Samuel Pollard, Norfolk; Thos. Benjamin Luscombe, Teddington; Edward Tongue Yeates, Balbriggan; Wm. Chas. Glasier Collins, London; James Newton, Manchester; Henry John Clarendon Godfrey, London; Roger David Delahaye Williams, Swansea; Gerald Cæsar Hawkins, Teignmouth; George Philip Longman, Southampton; Arthur Richard Rackham, Old Calton, Norfolk; Sydney Robert Lidiard, Hull.

ROYAL COLLEGE OF PHYSICIANS.—Dr. Hare Philipson, Newcastle-upon-Tyne, Professor of Medicine in the University of Durham, has been appointed to deliver the Bradshawe lecture, at the Royal College of Physicians, London, on August 18th.

NETLEY HOSPITAL.—It is stated that the drainage works in the neighbourhood of Netley Hospital have been discovered to be in such an unsatisfactory condition that a War Office inquiry is to be held.

LONDON HOSPITAL.—The Governors have decided to spend 8,000*l.* in building a new wing to the present Nurses' Home, to accommodate 100 nurses. The Baroness de Rothschild has given 10,000*l.* towards the funds of the hospital.

KING'S COLLEGE HOSPITAL.—This hospital is again in serious pecuniary difficulty. During the last six years the Committee have had to sell 48,000*l.* of stock in order to pay their way. Their last available stock will shortly have to be disposed of, and unless there is a large accession of funds, some of the wards will have to be closed.

THE ADULTERATION OF FOOD AND DRUGS.—A circular has just been issued by the Local Government Board, calling upon the various sanitary authorities throughout the country to take more efficient steps to enforce the provisions of the Sale of Food and Drugs Act, 1875.

NAVAL MEDICAL DEPARTMENT.—The following appointments have been made at the Admiralty:—John E. Penn, Surgeon, to the *Woodlark*; Henry J. Madders, M.D., Surgeon, to the *Duke of Wellington*; John L. Thomas, Surgeon, to the *Hector*; Francis M. Puddicombe, Surgeon, to the *Neptune*; Henry J. Gordon, Surgeon, to the *Shannon*; John H. Thomas, Surgeon, to the *Excellent*; James L. Smith, M.B., Surgeon, to the *Asia*; Frederick J. Lilly, Surgeon, to the *Indus*; George F. Dean, Surgeon, to the *Royal Adelaide*; George Welch, Surgeon, to the *Pembroke*.

INDIAN MEDICAL DEPARTMENT.—Bengal Medical Establishment: To be Deputy-Surgeon-General, Brigade Surgeon Alexander John Cowie. To be Brigade Surgeons, Surgeons Major William Roche Rice, M.D.; Henry Cayley; James Champion Penny, M.D. Surgeons to be Surgeons-Major, Alexander Crombie, M.D.; William Reed Murphy; Charles Henry Joubert; Edgar Geer Russell; John Scully, Geoffrey Craythorne Hall; Gopal Chunder Roy, M.D.; Adam Scott Reid; William Andrew Durnford Fasken, M.D.; Edward Lawrie; Joseph Wilson, M.D.; Edward Mulvany; John Manook Zorab; Russick Lall Dutt, M.D.; Girdharlál Ratantál Daphtary, M.D.; John Thomas Brownrigg Bookey; Alexander McGregor; James Young; Joshua Duke; Bankabehari Gupta; John McConaghey, M.D.; Edward Palmer; Alfred Henry Williams; Robert Andrew King Holmes, M.D.; John Edward Charnock Ferris. Madras Medical Establishment: Surgeons to be Surgeons-Major, Arthur Mudge Branfoot; Christopher John McNally, M.D.; William Edward Johnson, M.D.; Stanley Lockyer Dobie; George Frederick Bevan; Andrew Francis Dobson; Charles Little, M.D.; Thomas Mayne; John Crofton Lawrenson.

THE QUEEN'S COLLEGES (IRELAND) COMMISSION.—Having concluded their labours in the case of the Queen's College, Belfast, the Commissioner, Mr. R. P. Carton, Q.C., Chairman; Dr. George Johnstone Stoney, F.R.S.; the Rev. Gerald Molloy, D.D.; Dr. Jack, and Deputy-Surgeon-General John Marston—proceeded to Cork at the end of last week, and have since been engaged in holding an inquiry in the Examination Hall of the Queen's College near that city.

PROXY VOTING AT THE ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the Annual Meeting of the Fellows held on Saturday, May 31st, the following resolution was passed:—Resolved, "That it is to be regretted that the resolution of the College, passed without a division on the 4th June, 1883, recommending that the Fellows shall in future have the right of voting *in absentiâ*, by means of voting papers, for

the President, Vice-President, and Members of Council, has not been put into force; and that the incoming Council be requested to take immediate steps to have such alterations made in the Charter of the Royal College of Surgeons of Ireland as will enable the provincial and other Fellows of this College to vote at the election of the President, Vice-President, and Council by voting papers or otherwise."

THE ROYAL UNIVERSITY OF IRELAND.—At a largely attended meeting of the Senate of the Royal University of Ireland, held on Thursday, May 29th, the following were elected Fellows in the Department of the Natural Sciences:—Robert O. Cunningham, M.D., F.L.S., Professor of Natural History, Queen's College, Belfast; George Sigerson, M.D., F.L.S., Professor of Botany and Zoology, University College, Stephen's Green. The following examiners were re-appointed for one year:—In Medicine—Stephen M. M'Swiney, M.D. In Midwifery—John A. Byrne, M.D.; H. MacNaughton Jones, M.D. In Medical Jurisprudence—E. W. Davy, M.D. In Materia Medica—F. J. B. Quinlan, M.D.; J. Seaton Reid, M.D. The Senate also appointed Dr. Michael M'Hugh, one of the Examiners in Medical Jurisprudence, in succession to the late Dr. Matthias O'Keefe, of Cork. The Senate decided with regard to the Dr. Henry Hutchinson Stewart Scholarships, that one scholarship of the annual value of 50*l.*, tenable for three years, should be offered in the autumn of 1885 for competition among medical graduates of not more than two years' standing, for proficiency in mental diseases; and that a second medical scholarship of the annual value of 10*l.*, tenable for three years, should also be offered in the autumn of 1885, for competition in the subjects of the second examination in medicine. In order to be eligible, candidates must present themselves after the lapse of not more than one academical year from the time of passing the first examination in medicine.

THE IRISH MEDICAL ASSOCIATION.—The annual general meeting of this Incorporated Society, was held on Monday, the 2nd inst., at the Royal College of Surgeons in Ireland. Dr. Archibald H. Jacob, as President, occupied the chair. Dr. Chapman (hon. sec.), read the annual report of the Council, which alluded to the Medical Act Amendment Bill, the Union Officers' Superannuation Bill, the Labourers' (Ireland) Act, and the remuneration to which Medical Officers of Health were entitled for their services in connection therewith, the notification of infectious diseases, the payment of substitutes for prison surgeons during their temporary absence from duty on Crown or official business, and the exclusion of dispensary medical officers from the Commission of the Peace in Ireland, recently brought under the notice of the House of Commons by Mr. Sexton, M.P. Resolutions were adopted dealing with these various topics, and a very successful meeting was brought to a close by the taking of the second chair by the incoming President of the Association, Dr. W. D. Hemphill, of Clonmel. The annual dinner of the members took place in the evening, in the Albert Hall of the Royal College of Surgeons, Stephen's Green.

THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The forty-second annual meeting of this Society was held on Monday, June 2nd, in the Hall of the King and Queen's College of Physicians, Kildare Street, Dublin. Dr. William Moore, President of the College, took the chair at 4 p.m. Dr. J. W. Moore (hon. sec.) read the report of the Central Committee, which stated that the Society continued in a fairly satisfactory condition, and had during the past year been able to assist a very large number of applicants, although the amounts granted were necessarily very small. During the year ending May 31st, 1884, the sums that passed through the treasurer's hands amounted to 2,535*l.* Of this 1,104*l.* had been added to the funded property of the Society, in accordance with the wish of the donors. The sum of 1,230*l.* had been distributed, leaving a balance of 201*l.* in the treasurer's hands to meet the working expenses, &c. Of the sum distributed, 205*l.* was to medical men, 930*l.* to widows, and 95*l.* to orphans. Dr. Thomson (hon. treasurer) stated that the total assets of the Society for the past year amounted to 2,821*l.* 14*s.* 5*d.* The funded capital now amounted to 6,140*l.* 9*s.* 9*d.*, in stock of the Bank of Ireland, representing 20,640*l.*

INTERNATIONAL HEALTH EXHIBITION.—The Library Sub-Committee, of which Mr. J. L. Clifford Smith is secretary, have now held eleven meetings, and as a result of their labours they have succeeded in bringing together a valuable collection of books, periodicals, and government reports of many nations, bearing on the groups of the two great divisions, Health and Education, into which the Exhibition is divided. The number of books at present received is about 6,000, and these are now being catalogued by Mr. Carl A. Thimm, the librarian appointed by the Executive Council. It is proposed that the Library and Reading Room, which under certain regulations will be free to all visitors to the Exhibition, shall be opened on Monday, the 16th instant.

VOLUNTEER AMBULANCE WORK.—Sir Andrew Clark, M.D., presided, on the 5th instant, at a largely attended meeting of the students of the London Hospital, held for the purpose of forming a Volunteer Ambulance Company. Surgeon-Major Evatt gave an address, in which he pointed out that the only way to make the Army Medical Service efficient was to form a special corps of men experienced in medical science, and to do this they must have recourse to the medical students. It was unanimously resolved that a company entitled the "London Hospital Volunteer Ambulance Company" be formed, the members to be students of the hospital.

THE JAFFRAY SUBURBAN HOSPITAL, BIRMINGHAM.—The memorial stone of a new suburban hospital for chronic cases, presented to this town by Mr. John Jaffray, was laid on the 4th instant, at Erdington, near Birmingham, by Lord Leigh. The hospital building, designed by Mr. Yeoville Thomason, is in the Queen Anne style, and is built of red brick, with terra-cotta mouldings, string courses, cornices, and window archings. It will afford immediate accommodation for 50 patients, with a capacity for 50 more by adding wings to the rear. The hospital is two stories high, and the entrance is by a central porch facing a curvilinear carriage-drive and lawn. Upon the ground-floor there is an entrance-hall 17 feet by 13 feet, and beyond it, running right and left, a spacious main corridor leading to the wings.

CARDINAL MANNING ON PROVIDENT DISPENSARIES.—At the Annual Meeting of the Camden Provident Dispensary, held on Monday, Cardinal Manning, who occupied the chair, said that he was thoroughly convinced that the Provident Dispensary movement was a most wise, salutary, and solid one. It was founded upon a principle which has been well tested by experience and so certain in its results that he believed it ought to be applied far more widely than it yet had been—it was, in fact, nothing more than the principle of insurance, applied, not to life and property, but to the vicissitudes of human health and human sickness. There were three classes of persons in London. One was that class of persons who could and who ought to pay doctors' fees and doctors' bills; another was that class of persons who, through poverty, were quite unable to pay doctors' bills. But there was another class, which came between the two others, and this class of persons could just manage to pay the doctor, but with great privation to themselves. For this intermediate class the Provident Dispensary was established.

THE CONTAGIOUS DISEASES ACTS.—On Monday a deputation, representing all the towns in which the Contagious Diseases Acts were in force, waited upon Sir William Harcourt to present a memorial requesting that the provisions of the Acts which were withdrawn last year should again be put in operation. The memorial stated that the withdrawal of the metropolitan police had been followed by an increase of vice and disorder in the streets. Sir William Harcourt said, in reply, he was aware that to a great extent the opposition to the Acts had come from places that had not had experience of their working, while those places where the Acts had been in operation were in favour of their continuance. The Government had

endeavoured to make some provision for retaining the indirect advantages which had been derived under the Acts, and had introduced a Bill into the House of Lords which, if passed, would afford some means of restraining vice, and would directly arm the police with powers for the maintenance of decency and order in the streets.

WHEATLEY MEMORIAL FUND.—It is proposed to close this Fund at the end of the present month; the Treasurer will therefore be glad to receive all subscriptions before that date.

THE ANTI-VIVISECTION QUESTION IN AMERICA.—At the annual meeting of the Medical Society of the State of Philadelphia (*Philadelphia Medical News*, May 17th), Dr. Wen Mitchell, as chairman of a committee to which an appeal by the American Anti-Vivisection Society had been referred for consideration, mentioned its report. This pointed out the bad effects which the interference of a similar English society had produced by securing legislation hostile to scientific investigation. The law in England had put an end to physiological research. One eminent physician there, who has been investigating snake-poison there, has been obliged to give up his enquiries, and this in face of the fact that from 25,000 to 30,000 people are killed every year in India by snake-bites. The Indian Government has actually sent snake-poison to Philadelphia, and money also, to secure investigation, not being able to have such researches made in England. He appealed to all the members that efforts would be made to pass a law, and each of them ought to see that such a bill is defeated, and not have our great medical schools crippled as they are in England. At one of the meetings of the American Medical Association, resolutions were passed in favour of "Experimental Medicine," one which was unanimously adopted being in these words: "That in view of the attempts that have been, or may be, obstructed by restrictive legislation, in the progress of experimental medicine, this Association desires to express its earnest conviction that experimentation on animals is a most useful source of knowledge in medical science; that its direction and supervision can be properly entrusted only to members of the medical profession, and that its restriction or prohibition by law would inevitably retard the advancement of medical science, and the improvement of the medical art." There is a peculiar fitness in these resolutions at a meeting where one of the principal papers, that on "Gunshot Wounds," was based almost entirely on experimental work.

MORTALITY STATISTICS OF NEW YORK, FOR 1883.—Dr. Nagle communicates the following return to the *Medical Record* for April 26th. The deaths during 1883 amounted to 34,011, representing an annual death rate of 25·81 per 1,000 of the population, which was estimated in the middle of the year at 1,317,691. Of the 34,011 deaths, 9,011 were ascribed to zymotic diseases, 7,575 to constitutional diseases, 13,049 to local diseases, and 2,150 to developmental diseases, while 1,326 were due to violence. The deaths from some of the most prominent causes, are as follows: small-pox, 12; measles, 716; scarlatina, 744; diphtheria, 1,009; membranous croup, 644; whooping-cough, 327; erysipelas, 125; typhus fever, 15; typhoid fever 471; cerebro-spinal fever, 223; puerperal diseases, 416; diarrhœa in children under five years old, 2,897; diarrhœa (all ages), 3,398; inanition and want of breast-milk, 229; alcoholism, 222; cancer, 678; phthisis, 5,200; bronchitis, 1,435; pneumonia, 3,409; heart disease, 1,693; scrofula and marasmus, 831; hydrocephalus, meningitis, and encephalitis, 1,309; infantile convulsions, 514; sunstroke, 83; diseases of liver, 350; diseases of brain and nervous system, 2,810; diseases of kidney, 1,854; suicides, 161; drowning, 245; surgical operations, 39; deaths of persons of 70 years and upwards, 2,345; of children under one year, 8,671; under two years, 11,325, and under five years, 13,856. The total number of deaths taking place during the year in institutions, was 6,955; in tenement houses, 18,359, and in private houses, 7,770.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination of Local Surveyors and Inspectors of Nuisances held on the 5th and 6th instant, 23 candidates presented themselves. The Institute's Certificate of Competency to discharge the duties of Local Surveyors was awarded to W. H. Radford, J. B. Wilson, C. Gilby, W. Tattersall; and to discharge the duties of Inspectors of Nuisances, to R. Gibbs, G. W. Joblings, Kenneth Cameron, T. S. Ainge, T. Turner, R. Jeffery, J. Parker, J. Mallinson, W. A. Shaddrake, W. C. Beck, F. T. Poulson, J. Whyte, A. Suctliffe, C. J. Easton, and T. Haslam.

APPOINTMENTS.

ANDREWS, A. G., M.R.C.S.—House Surgeon to the London Hospital.
FLOOD, F. P., M.R.C.S.—Honorary Surgeon to the Leeds Public Dispensary, *vice* W. H. Brown, resigned.
GUNN, R. MARCUS, M.A., B.M. and M.S. Edin., F.R.C.S. Eng.—Ophthalmic Surgeon to the Great Northern Central Hospital.
LE CRONIER, J., M.D.—Consulting Surgeon to the Jersey General Dispensary.
MASON, WILLIAM, L.R.C.S. and L.R.C.P. Edin., and L.A.H. Dub.—Medical Officer to the Second District, St. Austell Union.
PHILIPPS, S. R., M.D.—Medical Superintendent of the Asylum, St. Ann's Heath, Chertsey.
SINCLAIR, JOHN, L.K. and Q.C.P. Ire., L.F.P. and S. Glas., and L.M.—Medical Officer to the Slaidburn District, Clitheroe Union, *vice* W. M. Seabrook, deceased.
RENDELL, H., M.B., C.M. Edin.—Assistant Physician to the North-Western Hospital, Haverstock Hill.
RICHARDS, THOMAS, M.B. Edin.—Honorary Physician to the Birmingham and Midland Free Hospital for Children, *vice* F. Marshall, M.B. Lond., resigned.
ROBERTSON, T. M., M.B., C.M. Edin.—House Surgeon to the Durham County Hospital, *vice* Melburn, resigned.
RUSSELL, R. H., M.R.C.S.—House Surgeon to the Salop Infirmary, Shrewsbury, *vice* W. Dowson, M.B., resigned.
WOOD, G. B., M.B., C.M. Edin.—Resident Medical Officer to the Jersey General Dispensary, *vice* Fredk. A. Hyne, M.R.C.S.

VACANCIES.

BOSCOMBE PROVIDENT INFIRMARY, BOURNEMOUTH.—Resident Medical Officer. Salary, £60 per annum, with board, &c. Candidates must be duly registered, and unmarried. Private practice prohibited. Applications, with copies of recent testimonials, to be sent to the Honorary Secretary, before June 28th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD.—House Physician. Residence and attendance, with coals and gas, are provided, and an allowance at the rate of £80 per annum is made in lieu of board. Candidates must be registered under the Medical Act, and must not engage in private practice. Applications and testimonials to be sent to the Secretary, from whom further particulars may be obtained, by 12 noon, June 17th.

QUEEN'S COLLEGE BIRMINGHAM.—Professorship of Anatomy. Salary £262 10*s.* per annum. Applications with testimonials, to be sent to the Secretary, Joseph Lewis, 21, Paradise Street, Birmingham (from whom further particulars can be obtained), on or before June 30th.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Honorary Physician. Candidates must be either F. or M.R.C.P. Lond., or Graduates in Medicine of one of the Universities of the United Kingdom. Applications, with diplomas and testimonials, to be addressed to the Medical Committee, at the Dispensary, 60, King Street, Golden Square, W., not later than June 25th; and candidates must attend personally at the Dispensary on June 26th, at 4.30 p.m.

TOWER HAMLETS DISPENSARY.—Medical Officer. (*For particulars see Advertisement.*)

TOWN OF CALCUTTA.—Health Officer. (*For particulars see Advertisement.*)

WEST LONDON HOSPITAL, HAMMERSMITH, W.—Assistant Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, and not practising as apothecaries. They are requested to attend a meeting of the Medical Council on July 1st, at 3.30 o'clock p.m. The election will take place on July 7th. Applications and copies of testimonials to be sent to the Secretary not later than June 30th.

WILLITON UNION.—Medical Officer for the Stogumber District, in succession to Mr. Jonathan Crocker, resigned. Area, 14,003 acres. Population, 3,011. Salary, £30 per annum.

WHITBY UNION.—Medical Officer for the Fylingdales District, in succession to Mr. T. Finley, whose term of office has expired. Area, 13,010 acres. Population, 1,448. Salary, £30 per annum.

YORK COUNTY HOSPITAL.—Assistant House Surgeon. Salary, £50 per annum, with board and residence. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons in the United Kingdom, registered under the Medical Act, and unmarried. Applications, stating age, accompanied by testimonials, to be sent to Secretary's Office, 5, New Street, York, on or before June 21st.

DEATHS.

DICKSON, J. B., Inspector-General of Hospitals, retired, Bengal Medical Service, at the Albany, Piccadilly, on June 11th, aged 78.
GAMBLE, R., Deputy Inspector-General, M.A., M.D., at Brompton, on May 28th.
LLOYD, R. R., M.R.C.S., at Boroughfield, St. Albans, on June 1st, aged 41.
ROGERS, Dr. H., F.R.C.S., at Boursault, Curepipe, Mauritius, on April 16th, aged 48.
STRANGE, G. H., F.R.C.S., at Lyonsdown, New Barnet, on June 2nd, aged 64.
WALTER, JAMES KING, Surgeon-Major, retired list, Indian Army, at Mansfield House, South Hampstead, on May 28th.
WODSWORTH, C. G., Staff Surgeon, R.N., at the Royal Naval Hospital, Haslar, on May 23rd.

NOTES, QUERIES, AND REPLIES.

Fellow Elect.—You cannot record your vote at the Annual Election of Fellows into the Council of the College of Surgeons until you have signed the bye-laws. Write at once to the Secretary, who will let you know at what meeting of the Council you can attend for that purpose.

Dr. H. Sorley, Wanganui, New Zealand.—Letter and enclosure received with thanks.

COMMUNICATIONS RECEIVED—

Dr. James Copland, New Zealand; The Hon. Secretary of the West London Medico-Chirurgical Society, London; The Secretary of the Belgravia Dairy Company (Limited), London; Dr. J. Pedlow, Weymouth; Dr. Hare Philipson, Newcastle-on-Tyne; The Secretary of the International Health Exhibition, London; Mr. Lawson Tait, Birmingham; Mr. H. C. Burdett, London; Mr. St. Vincent Mercier, London; Dr. J. W. Langmore, London; Mr. T. J. Barnardo, London; The Secretary of the Apothecaries' Society, London; Dr. Charles West, London; The Chairman of the Vestry of Hampstead, London; Dr. G. E. Herman, London; The Sanitary Commissioner of the Punjaub, Lahore; Mr. T. M. Stone, Wimbledon; The Editor of the Sanitary Engineer, New York; The Registrar-General for Scotland, Edinburgh; The Secretary of the Society of Medical Officers of Health, London; Dr. C. J. Hare, London; Dr. Norman Kerr, London; The Secretary of the Sanitary Institute of Great Britain; Mr. John Tweedy, London; Dr. Willoughby, London; Our Dublin Correspondent; Dr. Shelly, Hertford; Messrs. H. R. Williams & Co., London; The Secretary of the University College, London; Inspector-General of Chinese Imperial Maritime Customs, London; The Secretary of the Wheatley Memorial Fund, London; Mr. G. W. Hind, London; Dr. Alexander Meighan, Glasgow.

BOOKS RECEIVED—

Analysen-Tabellen der gebräuchlichsten Mineralbrunnen und kohlensauren Heilwasser—The "J. E. M." Guide to Davos-Platz, by J. E. Muddock—Notes on Books, by Messrs. Longmans & Co.—On Visceral Neuroses, by T. Clifford Allbutt, M.A., M.D.—Report on the Health of the Borough of Gateshead, during the year 1883—The Sanitary Past, Present, and Future of Calcutta—Edinburgh University Tercentenary Festival, 1884—Sleep-Walking and Hypnotism, by D. Hack Tuke, M.D., LL.D.—Recent Materia Medica, by F. H. Lescher, F.C.S.—Hospital Construction and Management. Part II. By F. J. Mouat, M.D., F.R.C.S., and H. Saxon Snell—Wharton and Stille's Medical Jurisprudence. Vol. ii.—The Continued Fevers of Great Britain, by Chas. Murchison, M.D., LL.D., F.R.S.—The House of Lords, by Sir John Bennett—Reports of the Medical Officers to the Chinese Imperial Maritime Customs Service, from 1871 to 1882—Influence of Constant Use of High-heeled French Shoes upon the Female Form, &c., by S. C. Busey, M.D.—Lehrbuch der Auscultation und Percussion, von Dr. C. Gerhardt—Mittheilungen aus der Chirurgischen Klinik zu Kiel, von Dr. Friedrich Esmarch—The Action of Certain Remedies in the Treatment of Hygro-Neuralgia, &c.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt für Gynäkologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—The Otago Daily Times, April 5th—Société Médicale—The American Psychological Journal—The Medical Bulletin—The Australian Medical Gazette—Nice-Médical—Revista de Medicina—Journal of Cutaneous and Venereal Diseases—Revista Internazionale—The Indian Medical Gazette—The Canada Lancet—Night and Day—Popular Science News—The Western Medical Reporter—Scienze Mediche—The Practitioner.

APPOINTMENTS FOR THE WEEK.

Friday, June 13 (*this day*).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m.—Professor Sir Henry Thompson will deliver his Second Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

Royal Institution, 8 p.m.—Prof. Dewar, "Researches on Liquefied Gases."

Saturday, June 14.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, June 16.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Royal College of Surgeons of England, 4 p.m.—Professor Sir Henry Thompson will deliver his Third Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

Tuesday, June 17.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Wednesday, June 18.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Royal College of Surgeons of England, 4 p.m.—Professor Sir Henry Thompson will deliver his Fourth Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

Thursday, June 19.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Friday, June 20.

Royal College of Surgeons of England, 4 p.m.—Professor Sir Henry Thompson will deliver his Fifth Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

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MEDICAL TIMES
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ON INDUSTRIAL DISEASES.[1]

By J. S. BRISTOWE, M.D., F.R.S.,

Physician to St. Thomas's Hospital and Medical Officer of Health for Camberwell.

THE investigation of the causes of disease is a subject which has ever engaged, and still engages, the choicest intellects in the profession of medicine. For not only does it present the highest scientific fascination, but it is fully recognised that it is in the discovery of the causes of disease that our best hopes of dealing successfully with diseases, either in curing, in mitigating, or in preventing them, reside. When it was proved that scurvy, that direful scourge of sailors in by-gone times, was due simply to deprivation of vegetable food, both the means of preventing it and the method of curing it became obvious. When once it was established that certain fatal infectious diseases of the lower animals were due to specific vegetable organisms, which could be separated from the tissues of the body and cultivated apart from them, the possibility naturally suggested itself that by appropriate methods of cultivation they might be so far robbed of their virulence as to impart or inoculate milder forms of disease, which (in accordance with the analogies afforded by the relation of cow-pox to small-pox, and the protection which one attack of any infectious fever generally gives against subsequent attacks of the same disease) should hold their subjects harmless for the future. I need scarcely remind you of the brilliant results which, by the skilful pursuit of this idea, M. Pasteur has achieved in relation to the anthrax fever of cattle and chicken cholera, or remark on the promise which they give that other human diseases besides small-pox shall some day be robbed of much of their loathsomeness and danger. When also it became apparent that septicæmia and pyæmia, the frequent causes of death after accidents, after operations, and in the lying-in room, were due alone to the inoculation of the system through the wounded surfaces with the septic organisms of bacteria, which abound everywhere and are the agents in putrefactive processes, the need of absolute cleanliness and of the most careful protection of susceptible parts from accidental inoculation from without followed as a corollary. And the introduction of so-called Listerism into surgical practice has deprived the gravest operations of much of their danger, and has rendered possible the frequent successful performance of operations which formerly one scarcely dared to attempt.

As civilisation has advanced, and manufacturing and other processes have developed in order to meet the growing wants of mankind, dangers formerly unknown have arisen, accidents of special kinds have become common, and diseases new to our nosology have sprung

[1] Read at a Conference at the International Health Exhibition on Wednesday, June 11th, 1884.

up amongst us—accidents and diseases dependent on the new conditions under which, in certain circumstances, men have found themselves placed. I do not, of course, mean to say that civilisation has tended to increase sickness and shorten life, for the reverse of this is known to be the fact. No doubt many causes of disease and injury to which our savage, or less civilised, ancestors were exposed, have wholly, or in part, ceased to be operative, and by so much have we been the gainers; but, none the less, new and often unsuspected sources of mischief have, from to time, appeared in association with conditions, mainly beneficial, determined by our progress in art, in science, and in luxury.

Among the dangers here referred to must be included: first, accidental injuries, such as mining accidents, accidents caused by machinery, accidents due to the ignition of explosive compounds, and the like; second, the dangers arising from the temptations to which special occupations expose the persons engaged in them, such as those of alcoholic intemperance incidental to pot-men and commercial travellers; and, third, diseases due to poisonous or other influences incidental to certain occupations, and which can only be escaped, if escaped at all, by the adoption of special precautionary measures. It is this last subject with which alone I have to deal on the present occasion.

One of the most interesting groups of industrial diseases is that in which injurious effects arise from the slow action of metallic or other inorganic substances, or their derivatives upon the system.

Chronic Lead-poisoning.

Metallic lead is probably inert; and even its salts, though generally regarded as poisons, may, for the most part, be taken even in large quantities without material injury to the taker. It is very different, however, with respect to the salts of lead habitually received into the system, even in minute proportion. It would be difficult to enumerate all the conditions under which chronic lead-poisoning is apt to occur. All those who have to do with metallic lead, such as lead-miners, plumbers, type-founders, and manufacturers of lead toys, occasionally suffer. All persons concerned in making glass, in glazing pottery and the like, in which operations the oxides of lead are employed, are liable to become affected. But the chief sufferers are those who manufacture, or employ in their work, the carbonate of lead; especially therefore, painters, plumbers, glaziers, glazed-card manufacturers and lacquerers. It is important to note, however, that lead-poisoning is not limited to operatives in lead, but that owing to the extensive employment of this metal, and of its derivatives, the general public are by no means free from danger; and that isolated cases, or groups of cases, of plumbism, referable sometimes to the drinking of water stored in lead cisterns, sometimes to the use of hair-washes or cosmetics containing lead, sometimes even to the long-continued employment of lead as a medicine, and to other sources of contamination which need not now be specified, are often brought under the notice of medical men.

The symptoms of chronic lead-poisoning are for the most part very striking, and generally quite unmistakable. The most common, and on the whole the most important, are a peculiar form of affection of the bowels, and a peculiar form of paralysis. Lead colic (as it is termed) is usually the earlier in its advent. It is characterised by intense griping abdominal pain, coming on in paroxysms, and associated with hardness and retraction of the abdominal muscles, nausea or sickness, and almost insuperable constipation. Lead palsy, in its simplest form, attacks those muscles of the forearm which extend the wrist, the thumb, and the first joints of the other four fingers, so that, when the forearm is held out prone the hand drops powerless at the wrist, and the fingers droop so as to form nearly a right angle with the rest of the hand. This condition is known as "dropped wrist." Further, the affected muscles are tender and irritable, and rapidly waste. The palsy, however, is not in all cases confined to these muscles. Sometimes the upper arm suffers as well as the forearm; sometimes the muscles of the legs are implicated; and occasionally indeed the muscles of the trunk, including those of respiration, become involved. But, besides these chief consequences of chronic plumbism, other phenomena due to the same causes are observed. A peculiar form of cachexia, characterised by anæmia or bloodlessness, a sallow or earthy tint of the skin, derangement of the digestive organs and debility, is generally present in a greater or less degree; and in connection therewith may be mentioned the fact of the occurrence of a characteristic blue line along the margins of the gums at the junction with the teeth. Occasionally also, late in the progress of the disease, blindness, epileptiform fits, dementia, or some other form of madness makes its appearance. A curious but very important fact was observed by Dr. Garrod some years ago, and its truth has been confirmed by subsequent observers, namely, that there is a remarkable relation between gout and chronic lead-poisoning; that the victims of the latter affection become disproportionately liable to gout, and that persons of gouty tendency are specially prone to suffer from exposure to lead.

The immediate cause of the various phenomena above described is the entrance of lead in some one of its forms into the system; its deposition in the tissues; and its specific deleterious action on the organs which chiefly suffer. The poison gains access either by the respiratory organs, owing to the inhalation of vapour or dust; or by the stomach, in consequence of the impregnation of food or drink; or, possibly also, in certain cases, by cutaneous absorption.

In most instances the injurious effects of lead are readily recovered from if the case be taken early, and if the sufferer give up the employment which exposed him to danger. If, however, he persist in exposing himself, either the colic may prove fatal, or the paralysis becomes established and spreads; and finally, he dies either from the effects of cachexia, from extension of paralysis to vital parts, or from the supervention of symptoms of cerebral disease.

It is probably impossible that workers with at any rate some forms of lead should be rendered wholly free from liability to lead-poisoning. But it is clear that much may be done to minimise danger. "The first principles in lead-works are the inculcation of cleanliness; avoiding eating with unwashed hands, or in working clothes, or in workshops; moist-grinding; free ventilation; precautions against dust rising, or wearing flannel respirators when this is unavoidable; with occasional doses of sulphate of magnesia, acidulated with sulphuric acid." Similar precautionary measures should of course be taken by painters, and by all who are habitually exposed. It is seriously worth while for those who inherit a tendency to gout to consider twice before entering upon occupations which expose those who follow them to lead-poisoning.

Chronic Copper Poisoning.

Pure copper, like pure lead, is probably inert. But the salts of this metal are much more poisonous than those of lead; and acute poisoning by them is not only characteristic in its symptoms, but liable to end fatally. It is somewhat curious, therefore, that characteristic poisonous effects from the long-continued absorption of cuprous compounds are not nearly so common as those due to lead, and indeed that by some their occurrence is

denied. It is certain that copper salts gain entrance into the system by the same routes and methods as lead salts, that they become deposited in the tissues, and that a characteristic greenish or purplish line, somewhat resembling that due to lead, is apt to appear at the edge of the gums. But here all positive knowledge ceases. It is said, and seems not improbable, that workers exposed to the fumes or dust of cuprous salts are liable to suffer from nausea, sickness, diarrhœa, and other symptoms of gastro-intestinal irritation; and there is good evidence that brass-founders are subject to periodical febrile attacks in which colic or intestinal disturbance is followed by rigors, and to which the name of "brass-founder's ague" has been given. But it is held that the symptoms are due, not to copper, but to the zinc or arsenic which is combined with the copper. The subject of chronic copper poisoning derives a special interest from the fact that copper is—or, perhaps I should rather say, has often been—designedly mixed with pickles and preserved vegetables to give them colour. I believe that no clear evidence has yet been adduced of the injurious effect of copper taken under such circumstances. Nevertheless, it must always be borne in mind that copper salts are poisons; that, if they be taken accidentally in excess, acute and even dangerous symptoms may result; and that hence it is probably as important, in the case of copper as in that of lead, that those who are exposed to danger should adopt the precautions of cleanliness and the like which have already been specified.

Chronic Arsenical Poisoning

Is not uncommon in consequence of the inhalation of arsenical vapours or arsenical dust. "Those who are chiefly exposed to this form of poisoning are persons employed in the manufacture of pigments, paper-hangers and decorators, artificial flower manufacturers, milliners, persons exposed to the fumes of heated metals, particularly zinc and brass, manufacturers of dyes, and leather-dressers." Further, persons living in rooms papered with arsenical paper are very liable to suffer. The substance to which chronic poisoning is mainly due is arsenite of copper, commonly known as Scheele's or emerald green, which was formerly largely used as a pigment, and is still thus used to some extent. Dr. Guy, in the year 1862, investigated the effects of this preparation as they were shown in the industries in which they were chiefly employed, and ascertained that it was mainly in connection with the colouring of paper and of artificial leaves, fruits, and flowers that chronic poisoning occurred. The main symptoms are congestion or inflammation of the conjunctivæ, with intolerance of light and œdema of the eyelids; a sense of heat and tightness in the throat; a feeling of heat and pain in the pit of the stomach; together with more or less feverishness, thirst, loss of appetite, and nausea. Following on these or associated with them may be developed salivation, sickness and diarrhœa, dryness of skin, with erythematous or eczematous eruptions, œdema of the extremities, nervous disturbance, feebleness and tremor of the limbs, gradual emaciation, and finally death. The disease, however, rarely proves fatal, inasmuch as its nature is generally recognised long before the symptoms have become dangerous, and the proper means of arresting it have been adopted in time. Yet occasionally the symptoms (which are liable to variation) are misleading; and if at the same time the source of poisoning be not detected, serious consequences are likely to ensue. It may be added that cutaneous symptoms are among the earliest and most common of the effects of arsenic, being produced by local irritation, and that, although not generally dangerous, they are a source of infinite discomfort and annoyance. There seems to be no doubt, on the other hand, that persons may readily accustom themselves to the habitual use of arsenic in increasing quantities, until so much is taken at a time as would poison any ordinary person, and that under such circumstances, not only are there no symptoms of poisoning, but the health and strength and complexion are all improved. The chief evidence in relation to this subject (and the evidence appears to be unimpeachable) comes from the arsenic works of Styria and some parts of Austria. No doubt amongst arsenical workers cleanliness is of great importance; not improbably improvements in process of manufacture have been and may be made beneficial to the workpeople; but as a general rule those who are specially liable to suffer and those whose exposure is only accidental will do wisely to escape danger by its avoidance.

Chronic Mercurial Poisoning.

The per-salts of mercury, like all preparations of arsenic, are very potent irritant poisons. And all salts of mercury, after having been taken for a longer or shorter time, produce characteristic effects, the most prominent of which are salivation, swelling and tenderness of the gums, loosening of the teeth, and fœtor of breath, in association, with more or less cachexia, and disturbance of the digestive organs. Further, ulceration and gangrene of the parts about the mouth are apt to ensue. But chronic poisoning occurs among the workpeople who are habitually exposed to the vapour or dust of mercury, or its salts, especially, therefore, amongst those employed in quicksilver, mining, water-gilders, the manufacturers of looking-glasses, barometers and thermometers, furriers and persons engaged in the packing of furs, which have been brushed over with solution of nitrate of mercury. Yet, curiously although such persons may present the symptoms commonly observed in patients who have been subjected to mercurial treatment, for the most part their symptoms are of quite a different character, being of a paralytic nature, and referable to the nervous and muscular systems. The condition is, in fact, known by the name of metallic, or mercurial, tremor. The first signs of its presence are:—a general tremulousness of the hands and arms, which come on gradually; numbness, and tingling in the hands and feet; and occasional pains in some of the joints. Such symptoms are common amongst workpeople exposed to the vapour of mercury, and may continue for years without materially interfering with their capacity for work or their general health. But, sooner or later, they tend to get aggravated; they not only become more violent, but gradually extend to all parts of the muscular system, so as to involve at length hands, arms, legs, head and neck (including the muscles of expression, speech, and swallowing), and trunk, with the muscles of respiration. Then the violent trembling of the hands and arms renders the sufferer incapable of using these organs; he cannot lift a glass of water to his lips, or feed, or dress himself; the agitation of his legs becomes so great that he is unable to walk without being supported on either side; the convulsive action of the muscles of the head and neck causes constant tremulous movements of these parts, while that of the muscles of expression reveals itself in grimaces, and that of the lips, tongue, and muscles of mastication causes tremulous and indistinct utterance, and difficulty in chewing; the involvment of the respiratory muscles induces dyspnœa. These convulsive movements are generally absent when the patient is making no muscular effort; but sooner or later they do not wholly cease even when the patient is in bed or asleep. And at length, possibly, as in the later periods of lead palsy, vertigo, headache, loss of memory, deli-

rium, epilepsy, or distinct paralysis comes on. It is remarkable that the symptoms above enumerated are by no means necessarily associated with other indications of mercurial poisoning, or signs of ill-health. But such symptoms sometimes attend the onset of the palsy, or arise during its progress; and probably always towards the end the patient gets sallow, emaciated and weak, loses appetite, and presents a general failure in his corporeal functions.

In order to prevent the occurrence of mercurial tremor the same rules with respect to ventilation and cleanliness as have been laid down for workers in lead should, of course, be followed. It is probable, too, that in some of the occupations which entail exposure, modification of process might be advantageously introduced. But it is quite certain that all persons who are habitually exposed, as some of the workers must be, to mercurial fumes, are liable to suffer. Fortunately for them, if they be treated early, and especially if they give up their dangerous occupations, a cure is probably always possible.

Chronic Phosphorus Poisoning.

Shortly after the introduction of phosphorus in the manufacture of matches, it began to be observed that a peculiar affection of the jaw was apt to come on in those who were engaged in the match factories. The first person to call attention to the subject was Dr. F. W. Lorinser, of Vienna, who in 1845 published an account of 22 cases of jaw disease, of which the earliest had occurred as far back as 1839. In 1847 Drs. Von Bibra and Geist published jointly an elaborate work on the subject, in which they gave an analysis of 68 cases, which up to that time had occurred in Germany. During the next few years many cases of the disease were recorded in England, France, and other countries, and several works on the subject were published. And in the year 1862 it fell to my lot to make, for the Medical Officer of the Privy Council, an exhaustive report on the subject, so far as it related to the phosphorus industry in England. I ascertained at that time that at least 61 cases of the disease had happened in this country; and that, without exception, all the cases had occurred amongst the operatives in match factories.

The disease consists in a slowly progressive inflammation of the periosteum of the under or upper jaw, or both, resulting sooner or later in the necrosis or death of the bone, which ultimately (if the patient survive so long) is thrown off, or comes away. The patient, in fact, loses the whole, or a part of the upper or lower jaw, as the case may be; and, besides incurring all the distress and danger which attend a long-continued, foul and enfeebling disease, emerges from his malady permanently, and often hideously deformed. I quote the following account of the affection from my report just referred to:—"The disease, it was noticed, began usually with aching in one of the teeth. At first, this was probably mistaken for an ordinary tooth-ache, and would indeed at times intermit. Sooner or later, however, recurrence of pain necessitated the extraction of the tooth, and the pain and annoyance for a time probably ceased. The wound in the gum, however, was found not to heal; offensive matter began to ooze from it, and ere long a portion of the alveolus became exposed. Occasionally the portion of bone thus denuded came away, bringing with it, perhaps, one or two of the neighbouring teeth, and the disease made no further progress. More frequently, however, the disease continued to spread, and, sometimes slowly, sometimes rapidly, more and more of the jaw-bone became denuded; the gums grew spongy and retreated from the alveoli, the teeth got loose and fell out, the fetid suppuration became more and more copious, the soft parts around grew swollen, tender and infiltrated, and often the seat of sinuses. And thus the disease continued to progress, till in the course of six months, a year, two years—it might be even five or six years—the patient sank from debility, or from phthisis, or from some other consequence of the local affection; or, having lost piece-meal, or in the mass, large portions, one-half, or even the whole of the upper or lower jaw, returned to his original state of good health, but the victim of a shocking and permanent deformity. During the earlier and more acute stages of the disease, constitutional disturbance, as might be expected, generally showed itself, indicated by febrile symptoms, loss of appetite, thirst, constipation, a sallow, pasty condition of the skin, and these were often associated with intense pain in the affected parts, and consequent sleeplessness. After a while, however (especially in cases that were tending to a favourable issue), pain and constitutional symptoms diminished, and the patient sometimes recovered the aspect of health, even while necrosis of the jaw was still progressing."

The disease occurred only amongst such as were largely exposed to the fumes of phosphorus, and was generally confined to those whose duty it was to dip the matches in the melted phosphorus paste. Occasionally, however, in crowded and ill-ventilated factories, others besides dippers were affected. It was clear (although that point has been disputed, and was not originally held) that the disease was due to the local influence of the phosphorous fumes, and not to constitutional contamination; for there was no evidence whatever that persons exposed suffered in the slightest degree in their general health; and indeed the subjects of the phosphorous necrosis were always in good bodily health, until they began to suffer from the injurious effects of their local malady. It was thought by many that the disease only attacked those who had decayed teeth, and that the phosphorus exerted its immediate influence upon them. This view, however, was not entirely confirmed by observation. It seems, indeed, that, though the malady affected in largest proportion those with carious teeth, the special condition which made persons liable to attack was soreness or ulceration of gum, no matter how produced.

In speaking of phosphorus necrosis, I have spoken mainly in the past tense, because, although not improbably, it even now prevails in some parts of the world, and especially in overcrowded, ill-ventilated factories in which the cheaper forms of matches are still manufactured, I believe that owing to the precautionary measures which have been adopted, and especially to the large use of the amorphous phosphorus, which yields no injurious vapour, the disease has largely, if not entirely, disappeared from among us. At any rate, very little has been heard about it for some years, and no case has come under my own observation.

Effects of Irritants applied to the Skin.

From the group of affections just considered, due to the poisonous action of certain mineral substances, to which in various industrial processes workmen become exposed, I pass on to give a brief consideration to the direct irritating influence on the skin of certain matters which are generally regarded as inert, and in fact generally are inert. It is well known that grocers, bakers, washerwomen and others, are liable to inflammatory affections of the skin, mainly and primarily of the hands, commonly known as grocer's itch, baker's itch, washerwomen's itch and so on. These affections are not itch in the proper acceptation of the term, but eczema, or a variety of eczema, induced and kept up by the irritant effects in the first case of sugar, in the second of flour, and in the last of soap, or rather of imperfectly made soap or of the soda which is so constantly employed in washing. Most persons are acquainted with the fact that some delicate and irrit-

able skins are readily irritated and inflamed by even the purest soaps. Common soaps, in which alkali is in excess, or the ingredients are insufficiently mixed, are injurious to most skins. It is a phenomenon of the same kind which washerwomen at times present; but the simple irritation of the skin tends to become, in consequence of the constant use of soap and soda, a veritable inflammation of the skin, and before long results in vesication and excoriation. The above eruptions, which present little difference among themselves, are of course readily cured by the avoidance of the conditions to which they are due.

In relation with this subject I may briefly refer to two other kinds of skin disease which are determined by occupation, the one the so-called "*chimney-sweeper's cancer*," the other a somewhat analogous disease, sometimes termed, though inappropriately termed, *verruca necrogenica*, or, if one may translate the name into English, *the dissector's wart*.

In former days, when chimney-sweepers used to go up chimneys, and their occupation led to their being constantly begrimed with soot, it was observed that they not unfrequently became the subjects of a form of cancer of the skin now commonly known as epithelial cancer or epithelioma. This disease is not special to chimney-sweepers, but in them it affected parts of the body which are not usually attacked in other persons; and the relative frequency with which it was observed in them acquired for it from the distinguished surgeons who first observed it, the distinctive name which we have quoted. I believe that what was called chimney-sweeper's cancer is very rarely met with now, and that its infrequency is due to the practical discontinuance of the conditions which were believed to engender it.

The dissector's wart is special to persons whose hands are constantly employed in the dissection or cutting up of dead bodies. Hence it is common among persons engaged in pathological researches, in those who frequent dissecting rooms, and I believe also it is met with among butchers and knackers. It is a curious kind of circumscribed thickening of the knuckles, associated with the formation of pits or excavations, and the accumulation of crusts or scabs on the surface. The affection slowly spreads, and, so far as I know, never dies out, unless either it be destroyed by strong caustic applications, or the sufferer renounce the duties which first excited it.

Effects of Irritants applied to the Lungs.

But the irritant effects of matters, which are not poisonous, are not limited to the skin. Occupations which habitually expose the workmen to the inhalation of abundant solid particles, that are incapable of solution or removal by the animal tissues or secretions, in many cases induce chronic diseases of the lungs, which are known as the asthmas or consumptions of the several occupations referred to, and tend very materially to shorten life among those engaged in them. Workers in coal mines and in copper mines, grinders, millstone makers, and flax-dressers, are perhaps especially liable to suffer from such causes. It is marvellous how tolerant the bronchial tubes and lungs are of foreign particles which are drawn into them with the breath. Wherever smoke impregnates the atmosphere, as in London and other manufacturing towns, its particles are conveyed in greater or less abundance into the lungs; whence some are expelled with the expectoration, which presents, consequently, a slaty or black appearance, while some get absorbed, and becoming deposited in the tissues of the lungs, produce in them that black mottling which increases with advancing years, and is well known to pathologists. Yet as a general rule, the soot-studded organs remain practically healthy, and no clinical evidences of pulmonary disease manifest themselves. The same remarks doubtless apply to the inhalation of the silicious particles of ordinary dust. The effects are different, however, when such matters are inhaled in large excess. In coal-miners the lungs occasionally become almost as black as coal; and the excessive accumulation of carbonaceous matter induces a chronic inflammatory condition of the organs, associated with induration, and occasionally with the breaking down of the pulmonary texture. Among copper-miners something of the same kind occurs; but in this case the sooty matter is associated with a large proportion of silicious particles, which are far more irritating than simple carbon, and more rapidly induce chronic inflammatory changes than it. In grinders and mill-stone makers, the inhaled particles are mainly stony or silicious particles, and the injurious effects ensue with greater rapidity. Among flax-dressers the pulmonary mischief is of the same kind. It appears, indeed, that the particles which are absorbed exert no specific influence; that whether they be carbonaceous, silicious, or of any other nature, their effects are simply irritative, and to produce chronic inflammation or fibroid change; and that the only appreciable distinctive characters are such as are due to the quality of the particles imbedded in the lungs, and to the greater or less rapidity of progress of the disease. The symptoms under which the sufferers labour have some resemblance to those of chronic phthisis, some to those of chronic bronchitis and emphysema, for either of which they may well be mistaken. They consist in gradually increasing shortness of breath, lividity of surface, feebleness of circulation, and cough, with more or less abundant expectoration; to which, at a later period, general dropsy and hæmoptysis may be superadded. There is generally a total, or almost total, absence of fever. The only methods, so far as I know, by which the irritative diseases of the lungs, just considered, can be lessened or prevented, are by providing good ventilation, and (when possible) by adopting methods to prevent the diffusion of particles or dust in the atmosphere which the workmen have to breathe. It is obvious, too, that since the diseases are insidious in their progress, and increase in proportion as the inhaled particles accumulate, it would be well for persons who present early traces of them to seek at once some other kind of employment. Much of our knowledge of the subject just considered is due to the labours of Dr. Headlam Greenhow.

Phthisis in connection with Sedentary Work and Defective Ventilation.

But quite apart from the inhalation of solid particles which irritate the lungs into disease, it is certain that many occupations tend to the production of pulmonary phthisis and fatal bronchial affections. I will quote the remarks made by Mr. Simon, in reference to information which his inspectors had obtained concerning the lives of straw-plaiters, lace-makers and glovers at Berkhampstead, Tring, Towcester, Newport Pagnell, Nottingham, Radford, Barford and Yeovil; the lives of watch-makers at Coventry; the lives of button-makers, jewellers, and various knick-knack makers at Birmingham and Sheffield; the lives of stocking-makers at Lincoln, Nottingham, Radford, Basford and Hinckley; the lives of pottery artisans, especially of the decorators of earthenware, at Stoke and Wolstanton; and the lives of factory operatives employed on cotton, silk, flax, and wool at Preston, Leeds, Bradford, Pateley Bridge, Macclesfield, Leek, Stroud, Melksham, Coventry, and Blackburn; "The concurrent testimony," he says, "of these most various illustrations is —that commonly, where many persons are employed together at any indoor industry, the ventilation of the work-place is likely to be so bad as to convert the employment, which perhaps is not in its own nature of

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hurtful tendency, into an employment seriously dangerous to health. Here lies the explanation of a fact most deplorable for the working classes of our country—that, *in proportion as the people of a district are attracted to any collective indoor occupation, in such proportion, other things being equal, the district death-rate by lung-diseases will be increased.* For the bad ventilation which, as a rule, belongs to the place of employment, tends to develop among the workpeople a large excess of phthisis, and probably also some excess of other fatal lung disease." It was further proved, by evidence obtained by Dr. Edward Smith in reference to printers and tailors, and by Dr. Ord in reference to dress-makers, and published in the appendix to the report from which I have been quoting, that the mortality from pulmonary diseases was also very high among them. Dress-makers appeared to suffer least; but printers, and above all tailors, whose hours of work were much prolonged, and whose work was largely conducted in over-crowded ill-ventilated apartments or work-shops, suffered severely. The document from which I quote appeared just twenty years ago. It is probable that in many cases much sanitary improvement has taken place since then.

Spread of Infectious Fevers in connection with certain Industries.

There are a few occupations which render those who carry them on liable to contract infectious diseases accidentally brought to them by what are technically termed *fomites*, that is, by articles which have become impregnated with, or contaminated by, the virus or poison of the diseases in question.

Seeing how virulent the contagia of most infectious diseases are; how they cling to clothing, to wall-papers, to filth, and even to most things brought into relation with them whose surfaces are porous or rough; how such diseases are apt to be conveyed by healthy persons passing between the sick and those who are susceptible, by the transmission of articles of apparel, by books, by letters, by milk, and other articles of food, and in many ways, some of which are scarcely suspected; it seemed reasonable to believe that the spread of disease might be due in no inconsiderable degree to rags collected here, and imported, for the purposes of paper-making. In the year 1865, I made an extensive enquiry into the question of the spread of infectious diseases by rags, and more especially among the work-people engaged in paper-making. The result was to a considerable extent reassuring; for it appeared in the first place that no disease special to foreign countries had ever been introduced amongst them by the agency of foreign rags, and that as regards native rags the only disease that was ever spread by them was small-pox, and this only rarely. A recent enquiry by Dr. Parsons has, in the main, confirmed the conclusion at which I had arrived, but shows, I think, that small-pox is somewhat more frequently spread by rags than my own enquiries had led me to believe. There are many reasons for the comparative safety of the rag trade which I need not now discuss.

But the most interesting facts, in relation to the spread of infectious disease by the use of materials impregnated with morbific virus, are those which have been collected during the last few years, in reference to the affection known in Bradford as the "Wool-sorter's disease." I may state at once that this has been ascertained to be the anthrax fever, or splenic fever of cattle—a very fatal bovine disease, which prevails in many parts of the Continent, and also in Asia and America, and is known to spread readily from cattle to other animals, and to man. Anthrax fever is one of the few diseases which have been clearly proved to depend on the entrance into the system, and the growth in it, of specific forms of living vegetable organisms, or bacteria; and it will, perhaps, be recollected that it is one of the affections the virus of which M. Pasteur claims to have attenuated, or rendered less virulent by cultivation, so that by inoculation of animals with the cultivated products a mild form of the disease is imparted which protects from future more virulent attacks. The disease has some resemblance to glanders in the fact that it commences, sometimes, as an external or superficial disorder, sometimes, like most other specific fevers, as an internal or constitutional complaint. In the former case an inflammatory swelling arises on some part of the surface exposed to the air, which is attended with much redness and brawniness of surface, and in the centre of which soon appears an area of gangrene, or sloughing. This affection is commonly known as malignant pustule. In some instances the disorder remains purely local, and recovery takes place with the subsidence of the local mischief. But not unfrequently death ensues, either from constitutional disturbance due to the severity of the local inflammation, or with the usual symptoms of constitutional anthrax. The internal form of the disorder is the more common, and also the more fatal. Its period of incubation is uncertain. At its commencement the patient complains of feverishness, with weakness, chills, and usually perspirations. After a short time the symptoms become almost suddenly aggravated; the temperature rises, the pulse and the respirations become rapid, difficulty of breathing with precordial anxiety comes on, the surface gets cold and livid, and the patient falls into a condition of prostration or collapse. Sometimes there are signs of local congestions of the lungs, or of the abdominal organs, and hæmorrhages are not unfrequent; and very often delirium, coma, and even convulsions occur before the fatal termination. The disease is fatal in large proportion, and death usually ensues in the course of four or five days.

Now anthrax fever has never prevailed as an epizootic in this country, and British medical practitioners and veterinary surgeons have as a rule had no experience of it, and have hence been almost certain to overlook or to misinterpret isolated cases of it. In the year 1878, however, the attention of Dr. Russell, the Medical Officer of Health for Glasgow, was called to a group of mysterious attacks of disease, attended with a high mortality, which occurred at a factory in that town, among workers in Siberian horse-hair. He ascertained that this mysterious disease was anthrax fever, and concluded that the workmen had contracted it from handling affected horse-hair. Two years later the attention of the Local Government Board was directed to the existence at Bradford of a disease frequently fatal, but only imperfectly understood; and Mr. Spear was directed to inquire into the subject. The following quotation from Dr. Buchanan's report for the year 1880 summarises the results then arrived at: "Mr. Spear found that, in sequence to a large number of occasional cases, the nature of which had at the time of their occurrence been matter of suspicion, some thirty or forty cases, definable as anthrax, had occurred in eleven months among woolsorters in Bradford and neighbouring districts, and that no less than twenty deaths had to be ascribed to this cause. The disease, whether it showed itself more by external or internal symptoms in the persons of the affected woolsorters, was found by pathological observation to be uniformly characterised by the presence of the bacillus anthracis in the blood and organs; and the material of the disease had been received, it appeared, into the body of the worker, now by the way of the skin, now through the lungs or stomach. Experiments, conducted by Dr. Greenfield, in aid of Mr. Spear's enquiry, showed that in all cases where decomposition did not interfere with the result, the fluids derived

from fatal cases of the disease were capable of producing the same disease in mice and guinea-pigs into which those fluids were inoculated. An unintentional experiment on cows and sheep was made by the irrigation of certain fields with the washings of wool from a factory near Keighley, with the result of producing unexpected deaths among the animals pasturing on the fields; their disease having characters similar to those observed in the human subject, particularly in the presence of the same bacillus anthracis in the fluids of the body."

"Not all wools and hairs were found equally capable of producing the disease. The dangerous wools were foreign wools, and the most dangerous of all was a kind of mohair coming from the Van district of Armenia. There appeared reason, moreover, for believing that the infective quality resided more especially in the 'fallen fleeces' of a woolbale; in that portion, namely, of the wool which had been shorn from dead animals, and which forms about five per cent. of the whole."

In the report of the Local Government Board for 1882, are comprised the results of a further enquiry by Mr. Spear, with respect to the occurrence of the same disease among persons engaged in the London hide and skin trades. It would take too long to consider the details of this very interesting report. But it shows conclusively that anthrax fever, in both its forms, is of not unfrequent occurrence amongst those concerned in the industries referred to; and that, as might be supposed, the chief sufferers are the persons who have to handle the raw hides coming from abroad, namely, wharf-labourers, sorter's labourers, and tanner's labourers. No evidence of the occurrence of the disease could be traced amongst fellmongers. It is an interesting fact, too, as further proof (if need were) of the nature of the disease amongst the workmen in London, and of its virulence that in consequence of the removal from a tannery, in which there had been special recent prevalence of anthrax, of refuse for manurial purposes to a farm near Guildford, a destructive outbreak of anthrax occurred among the farm horses and cattle, just as had occurred previously in connection with the Bradford epidemic. These several enquiries show conclusively that the workmen who have to do with foreign hairs and hides incur a serious risk of contracting anthrax. There can be no doubt that many such attacks have been overlooked up to the present time, and it is satisfactory to know that now at length the danger is generally appreciated, and that precautionary measures against it are generally adopted.

There are still two or three diseases which may, I think, be fairly called industrial diseases, to which, before I conclude, I should like to advert: one is the so-called "clergyman's throat," another is the affection known as "writer's cramp," or scrivener's palsy. Clergyman's throat is not limited to members of the clerical profession; but is an affection to which all habitual or professional speakers and singers are liable. It is a form of follicular pharyngitis, which is caused by the constant over-exertion of the voice, especially if that over-exertion be continued at times when the patient is suffering from catarrh, and which, if the over-exertion be continued, is apt to become chronic and incurable and to incapacitate the sufferer from his duties. Scrivener's palsy is a peculiar affection to which clerks and persons who have to do much writing are liable. It consists in a kind of momentary loss of power or spasm, which affects the muscles of the thumb and fingers engaged in writing, which in advanced cases involves the muscles of the arm as well, and which either causes the writer to drop his pen, or to make some sudden movement that checks or mars his writing. In a large number of cases the disease is progressive, and finally renders continuous writing wholly impossible. Sometimes its development in one hand has compelled the sufferer to learn to write with the other hand. Unfortunately for him, however, the affection is apt to spread from one side to the other. Scrivener's palsy is only the best known, and perhaps the commonest, of a group of spasmodic or paralytic affections to which persons who have acquired skill in the use of particular groups of muscles are liable. The pianist, the swordsman, and others whom it is needless to enumerate, suffer from analogous disorders.

The sketch of industrial diseases which I have given is short and necessarily incomplete. I cannot pretend that I have consulted all the literature on the subject which has accumulated during the last few years; and my personal studies are limited to two or three enquiries which I conducted many years ago for the Medical Officer of the Privy Council, and to the casual material which has been afforded me by my position as an officer of health and physician to a large hospital. It is probable, therefore, that there are some well-known industrial diseases with which I have no acquaintance; and, with respect to some of those which I have brought under your notice, I cannot speak with any certainty as to what their present prevalence is as compared with their prevalence years ago. Moreover, I have not ventured to enter at any length on the important question of their prevention. I console myself, however, with the consideration that it would have been utterly impossible for me, even if my knowledge of the subject had been profound, to give an adequate account of industrial diseases in the limited time placed at my disposal; and that my paper will be completed and corrected by the observations it will doubtless elicit from those whose knowledge, of at any rate particular parts of the subject, is much more intimate and much more recent than mine.

ON COWS' MILK AS A VEHICLE OF INFECTIOUS AND EPIDEMIC DISEASE.[1]

By W. N. THURSFIELD, M.D.
Medical Officer of Health to the Shropshire Combined Districts.

To fully consider the above subject would involve questions in comparative and human pathology of themselves more than sufficient to occupy the time at my disposal on the present occasion. I shall therefore endeavour to confine my remarks to generally acknowledged facts, and to suggest such remedial measures as shall be equally efficacious and advisable, whatever technical views may be held as to the extent and precise mode in which cows' milk becomes a vehicle of human disease.

The subject is one with reference to which it is specially desirable on the one hand not to create undue alarm, and on the other hand not to make light of or pass over apparent sources of disease, however improbable they may appear at first sight.

The greatest risk of danger from milk lies in the fact that the chief consumers are of an age when the body is most susceptible of taking disease, and the consumption of unboiled milk may literally be said to bring the consumer into close connection with the animal from which the milk was drawn, and, always to some extent and often most intimately, with the family and domestic arrangements of at least one household and often two.

When we consider to what extent milk is a reflection of the bodily condition of an animal and of its food,

[1] Abridged from a paper read at a Conference at the International Health Exhibition on June 12, 1884.

and how very absorbent milk is of volatile matters in the atmosphere, and how prone to undergo septic changes, the wonder is not that so many but that so few bad consequences have been hitherto traced to its use.

To Dr. Michael Taylor, of Penrith, is, I believe, due the credit of having in the year 1858 first recorded a milk epidemic in an account of an epidemic of typhoid fever. The subject appears not to have attracted much attention until Dr. Ballard's well-known report of an epidemic of typhoid fever in Islington in the year 1870, since when records of about a hundred epidemics, alleged to be traceable to milk dissemination, have been published, and others not published have been noted.

The connection of an epidemic with milk supply is a matter with regard to which the statistical method, unless applied with scientific accuracy and rigorous impartiality, may readily lead to a wrong inference, and a coincidence be recorded as a consequence, and this would doubtless apply to some of the epidemics recorded.

Making allowance for all doubtful cases, it may, I think, be accepted as an absolute fact that epidemics of typhoid fever and scarlet fever have been repeatedly disseminated by milk, and that there is very strong evidence that diphtheria has been so disseminated, and instances have been adduced by most competent observers. Other infectious diseases have been alleged to have been so transmitted, but the cases are not so numerous, nor the evidence so clear. If, however, we accept the transmission by milk of the diseases above named, we are justified by our knowledge of the nature of infectious diseases generally, in assuming that to a certain degree the same danger may exist in the case of all infectious diseases, and should be guarded against.

With a view to propose efficient preventive measures it is necessary to consider the probable mode in which milk becomes a vehicle for the germs of infectious disease. I am certainly expressing my own opinion, and I believe also the opinion of the majority of those who have carefully studied the subject, that this is a point on which we have as yet very little accurate knowledge. In the case of the majority of milk epidemics investigated, typhoid fever has been the disease involved, and in the majority of such cases, specifically contaminated water added to the milk has been regarded as the source of the evil. This doubtless has been the case in many instances, but this theory does not appear to satisfactorily explain all the epidemics of typhoid fever, nor the epidemics where scarlet fever or diphtheria has been the disease involved. Another possible explanation is that the milk may be a simple carrier of the disease in the same way that articles of clothing convey the germs of disease. This may explain some cases. There still, however, remain a considerable number of epidemics in which the above explanations do not suit the observed facts. Another explanation is that milk itself may become specifically infected and serve as a nidus for the disease germs, in other words may itself catch the disease. Certainly milk is specially calculated by its composition to act as a cultivation-fluid for germs proper to the human body, though it is difficult to believe that it would readily so act at the ordinary temperature. Freshly drawn milk is, however, warm, and in cases of bovine sickness the milk temperature is still higher, and the milk in a more favourable condition to act as a cultivation fluid for any zymotic germs it may come in contact with.

Another suggestion is that milk epidemics may be explained on the theory that the disease is the expression in the human subject of some apparently different disease in the animal. If this were the case those engaged in investigations into the origin of outbreaks of infectious disease would be expected to find a larger percentage of inexplicable cases (*i.e.* cases where the source of infection was not readily traceable) at farmhouses or cottages where cows were kept. Such is, however, certainly not the case in scarlet fever or typhoid fever. In diphtheria I will not give a positive opinion, and it has struck me that very frequently outbreaks in which the source of infection was not readily traceable, have appeared in connection with a certain class of small farms where a few cows were kept, but I believe this fact, if fact it be, to be explicable by the natural history of diphtheria, as in this disease, essentially a disease of rural districts, structural dampness of habitation is of all defects the one most favourable to the severity and persistent vitality of the infection, and to its recrudescence often at intervals of years, and the class of houses to which I allude are often imbedded in damp situations or on a water-logged subsoil, and structurally damp.

It has more recently been suggested that the infected condition of the milk may result from the animal being itself the subject from human infection, direct or remote, of the disease in a modified or altered form. We know that in mankind the parturient condition renders a mother peculiarly susceptible to take zymotic disease, and that in such cases salient symptoms of the specific zymotic disease are masked and suppressed, and it has been suggested that something of the same kind may take place in the case of the parturient cow, but that the disease is modified, and so slight as not necessarily to attract attention. This theory has received some support from experimental evidence. Dr. Klein, by inoculating a cow, recently calved, with the virus of scarlet fever, appears to have succeeded in producing a febrile ailment which proved transmissible to dogs by inoculation, and produced in them an apparently specific disease. The theory also receives some indirect support from certain exceptional features which are said to have been observed in the character of the disease in milk epidemics, and it is remarkable in what a large proportion of the epidemics of scarlet fever believed to have been disseminated by milk, there is distinct evidence of the cows having been milked by persons in close contact with cases of the disease in the human subject. The above explanation could not, however, apply to those instances in which the milk has been assumed to have become infected after it has been removed from the dairy farm.

In addition to recognised human diseases, milk may become a vehicle for the transmission of recognised bovine disease to man. That the infection of foot-and-mouth disease (*eczema epizootica*) can be so transferred there is no manner of doubt. Numerous instances have been recorded. When, indeed, we consider how sensitive the secretion of milk is to the general constitutional condition of the animal, and that the first symptom of illness noticeable in cows is a sudden and marked diminution in the yield of milk, it is difficult to believe that the milk from a diseased animal can be otherwise than injurious. We are, however, met with very contradictory evidence.

No amount of negative evidence can, however, upset positive cases, and we are justified in the conclusion that if there is considerable uncertainty, there is sufficient evidence of risk to render it necessary to take such precautions as are indicated by experience.

It is asserted by some high authorities that bovine tuberculosis is transmissible to man. That a considerable proportion of milch cows are affected with tubercular disease is admitted, but whether the disease be or be not transmissible to the human subject through the milk, is a matter difficult to prove, and a point about which there is much controversy, though considerable evidence of probability has been adduced. If such

transmission can be satisfactorily proved or even shown to be frequently probable, the question of this disease would then transcend in importance any previously referred to by me. All we can venture to suggest as practicable at present, is that no milk should be sold from cows in a recognised stage of tubercular disease.

It is, however, an acknowledged fact that cows fed in urban cowsheds are much more prone to this disease than those fed in the ordinary way in the country, and if the recent large development of the milk trade from the country has had the disadvantage of prolonging the interval during which milk is kept before being delivered to the consumer, and thus affording more time for septic action, this is more than counterbalanced by the lessened danger of the milk being derived from tuberculous animals.

There have recently been recorded outbreaks of epidemic sickness, traceable to milk which, although presenting features agreeing with no recognised human or bovine disease, have presented sufficient uniform characteristics to entitle them to be considered as belonging to a specific disease. It is uncertain whether these symptoms depend upon some epizootic disease transferred to the human subject (and it would be in accordance with analogy and experiment, that an animal disease when transferred to man, may present symptoms varying in degree and kind from those which it originally presented), or are the result of the evolution, under favourable conditions, of a special degree of virulence in septic germs received from without, and not in any way connected with the animal source of the milk ?

One notable fact in connection with milk epidemics is that they have generally occurred in connection with milk purveyors who have been under contract to supply a certain amount of milk daily to be subsequently retailed. This is possibly open to the explanation that in such cases only, as a rule, can the necessary statistical evidence be forthcoming and attract attention. It is, however, I trust no libel on human nature to say that milk purveyors so situated would have greater inducement to continue the use of milk from cows suffering from slight illness, or to bring into trade use milk from parturient animals earlier than would otherwise be done, and, assuming the animals to be the source of the mischief, the mixed milk of twenty cows would at all times be very much more dangerous than the milk of twenty cows used separately. Although in acute disease the quantity of milk is decreased, the secretion does not generally cease altogether, and it is an important part of the treatment and essential for the well-being of the animal that it should continue to be regularly milked, and some people would probably honestly believe that if this milk was mixed with a large quantity of wholesome milk, no harm could ensue.

It is a popular belief that if the provisions of the Adulteration of Food Act are actively put in force, and the duties of the public analyst efficiently performed, sufficient protection is afforded against evils traceable to milk supply. Chemical analysis, especially when applied to mixed milk from a number of cows, although indispensable to expose a marked addition of water or abstraction of cream, is valueless as an indicator of infected milk, and, as negative evidence of danger or positive evidence of infection, is as fallacious in the case of milk as it is in the case of water.

There are certain circumstances under which, when the individual members of a community cannot well protect themselves, it is recognised to be the duty of the State to furnish as far as possible the necessary safeguards. This principle as applied to milk has already been endorsed by our legislature, and acted upon in Sec. 34 of the Contagious Diseases (Animals) Act, 1878, and by the Order in Council of July, 1879, founded on the above section, and known as the dairies, cowsheds, and milk-shops order. I propose now to bring under notice the practical working of this legislation, with a view of considering what measure of protection is afforded by it to the consumer against the risk, that, with milk, the germs of disease may be introduced into households. I think the answer must be that it affords no sufficient protection, and the reason I believe to be that this important matter, instead of being placed prominently under the operation of the laws relating to the health of mankind, has been made to occupy a very secondary and subsidiary place amongst the statutes relating to diseases of animals.

To place all dairies in rural districts under the same regulations as apply to cow-sheds in large towns would be inexpedient. Already milk is too difficult to obtain by the cottage class in many rural districts, and every care should be taken not to render this more difficult. A wide distinction should be drawn between milk purveyors and ordinary cow-keepers. The milk purveyors should be alone subject to the special regulations and license. The term purveyors should be restricted to those who sell milk by retail by sending it round from house to house, or keep shops where milk is sold as a prominent article of trade, or transmit milk in bulk to a distance for subsequent sale by retail. All such purveyors should be subject to license. Regulations are of course necessary, but what is chiefly needed is efficient inspection and responsible advice under certain exceptional difficulties.

To effectually prevent milk epidemics precautions are necessary :—

(*a*) At the house of the consumer.
(*b*) At the milk-shop of the retailer.
(*c*) At the dairy farm of the wholesale purveyor.

(a) *Precautions advisable at the House of the Consumer.*

If there is one fact which more than another has been uniformly brought out in the records of milk epidemics, it is that the consumers of boiled milk have, as a rule, escaped, and the same fact has been noted in outbreaks of an American epizootic which is readily transmissible to man, known as the milk sickness. The same protective influence of boiling infected milk has been observed abroad in connection with the experimental transmission of bovine tuberculosis to other animals. To boil milk may, for practical purposes, be said to confer immunity from infection conveyed by it, though such should never be absolutely relied upon, or when milk is known to be infected. At the present day in this country, milk is the only animal product which is habitually consumed in a raw state. There is no dietetic reason why milk should not be always cooked before consumption. The objection of many on the score of taste would disappear with use, as taste is very much a matter of cultivation. But boiling milk produces certain physical alterations which interfere with its subsequent general use when cold, and cause considerable prejudice against the obvious precaution of boiling the milk in bulk when received from the retailer.

(b) *Precautions advisable in connection with the Milk Shop of the Retailer.*

Generally those adopted by urban sanitary authorities, with the addition that, on the occurrence of any infectious disease amongst the employés, the fact should immediately be notified to the proper authorities.

An urban sanitary authority should also have the power to stop the sale of milk consigned from any particular farm pending investigations, if satisfied that they have sufficient grounds for so doing, but should be liable for compensation if the step prove to have been uncalled for or unnecessary.

It should also be incumbent on a retailer of milk, when required by the sanitary authority, to furnish a list of his customers.

(c) *Precautions advisable at the Dairy Farm of the Wholesale Purveyor.*

In connection with the above subject, there is much that is theoretically desirable that is at present not practically attainable; I believe, however, that it is possible, without omitting any requirements absolutely essential to safety, to restrict the compulsory provisions to such steps as are practicable under existing conditions. The requirements as to cubical and floor space and ventilation, of the regulations generally adopted in the case of urban cow-sheds, are unnecessary in the case of dairy farms; and I fear that in the case of rural cow-houses, requirements as to washable wall surfaces and impervious flooring could not at once be complied with, and the same would apply to the requirements as to daily registering the quantity of milk given by each cow, and taking the animal's temperature, and the restrictions as to feeding incorporated in the regulations adopted in some parts of Germany.

There are certain requirements, however, which are essential and not unreasonable.

The premises on which the business of a milk purveyor is carried on should be registered.

Every registered dairy should be provided with a plentiful supply of good potable water for the use of the dairy and cows.

The dairy used for storing and refrigerating the milk, should not be subject to animal effluvia of any kind, and should be satisfactorily drained, and the dairy should not be used for general domestic purposes.

Under the following circumstances the milk should not be transmitted for sale:—

Milk presenting any marked deviation from ordinary appearances, in either colour, smell, or general condition.

Milk from an animal manifestly the subject of constitutional disease.

Milk from an animal suffering from acute disease or infectious disease of any kind.

Milk from an animal suffering from abscess, inflammation, or painful swelling, or other affection of the udder.

Milk from an animal that has not completely recovered from the febrile state incident to parturition.

On the occurrence in an animal of any symptoms of acute disease, or a large and sudden diminution in the yield of milk, the milk should be set aside.

On the occurrence in the person or family of anyone employed about the cows or the dairy, of any eruptive or infectious disease at all, or of any throat complaint affecting three or more persons, the affected individuals should be isolated, and the fact notified to the health officer.

In most of the above requirements the milk-purveyor would be a gainer, as he would always be in a position to avail himself of responsible advice. Notification of disease need not, for obvious reasons, entail publicity, but in such cases the responsibility of the necessary isolation would devolve on the Medical Officer of Health.

I believe, indeed, inspections may be so carried out that the inspector would come to be looked upon, not as an interloper only borne with so far as the law demands, but as one in a position, under certain circumstances of disease incidence, to give advice, valuable from a commercial, as well as from a sanitary point of view.

Whatever differences of opinion there may be on technical points and matters of detail, I think that all who have carefully considered the subject will have formed a decided opinion that the adoption of regulations as to the sale of milk should be incumbent on local authorities, and not permissive, as at present, and that the regulations should be applied at the producing as well as the distributing depôts.

REPORTS OF

HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CHRONIC OTORRHŒA — SUDDEN SUPERVENTION OF CEREBRAL SYMPTOMS, RAPIDLY FATAL BY THROMBOSIS OF LATERAL SINUS.

(Under the care of Dr. COCKLE.)

(Notes by Mr. Charles Lane Sansom, M.R.C.S., House Physician.)

Arthur F., aged 15, admitted to the Rhodes Ward, March 17th, 1884.

Previous History.—He has been treated in the out-patient department for otorrhœa, of some years standing; otherwise he has always enjoyed fairly good health.

Condition on Admission.—Pale and thin, but fairly well developed. Face has rather a dusky hue, and the expression is very anxious, and of marked cerebral type. Skin hot and dry; temperature 104°; pulse 130, peculiarly hard; tongue dry and cracked; urine sp. gr. 1,020, no sugar or albumen present; heart sounds normal; respirations 48 per minute, very rapid and shallow. There is a thin purulent discharge escaping from the right ear; no swelling or tenderness over the mastoid process. Complains of headache, with, he says, the feeling of a tight band round his head. Ophthalmoscopic examination showed the retinal vessels of the right eye congested. No tenderness of the scalp present.

Condition Four Hours after Admission.—Sudden increase of headache, which is now very intense; he screams out if any part of the body is touched or moved; prefers lying on the right side. His face is contorted by general spasmodic twitchings, and his look is peculiarly fixed and staring, with slight and variable internal strabismus of the left eye; sudden contraction and dilatation of the pupils at irregular intervals, marked intolerance of light preventing all further ophthalmoscopic observations. Seems to understand a question, but a short interval elapses before an answer is given. Food is refused, but he complains of great thirst. There is no difficulty in swallowing. This condition lasted nearly an hour, when a remission of all the symptoms took place, and a short rest was obtained.

March 18.—Temperature, which had sunk to 101° during the night, is now 104°; pulse 146, still hard; respirations 48, very shallow. Was restless, and delirious at times, especially after several attacks of headache, similar to that described above, but has slept at intervals during the night. The headache is now more severe, several exacerbations occurring during the day. Twitchings of the face more marked, especially of the corrugatores superciliorum. The fixed look of the eyes and strabismus still present, the condition of the pupils remains the same; photophobia increased. The peculiar hydrocephalic cry is very marked. He screams out if touched or moved, and complains that "someone is tying his head up too tight;" seems to try to remove something from the forehead. The mental faculties remain the same. Tache cerèbrale and ankle clonus well developed, but no exaggeration of the other reflexes exists. Small petechiæ have appeared all over the body, except the face and neck.

Ordered Hydr. c̄ cretâ gr. ii, twice a day, three leeches to be placed behind the right ear, and ice to the head.

March 19.—Has had scarcely any sleep during the night, attacks of intense headache occurring very frequently, and the delirium following being more violent. He now appears perfectly indifferent to surrounding objects, but swallows a little nourishment when put into his mouth. The occasional screams are now changed into a low continuous moan. The twitching of the face and strabismus remain the same as yesterday. Temperature 103°; respiration 56; pulse 190 (as nearly as could be counted), is now scarcely perceptible. The muscles of the limbs are flaccid, but those of the abdomen are rigid. He no longer understands what is said to him. The evacuations are passed into the bed. When called to see him half an hour later, coma rapidly supervened, and he died whilst in this condition ten minutes later. At no period of the case did vomiting occur.

Necropsy Twenty-six Hours after Death. (Made by Dr. Harrison Sainsbury.)—Numerous small petechiæ on the surface of the body, but no other discolorations.

Thorax.—A few scattered and recent adhesions between both pleuræ; there is also six ounces of discoloured semi-purulent fluid in the left cavity. Scattered over the lungs numerous small infarctions, varying in size from a pea to a walnut, are seen; in the bounding walls are small patches of gangrene. Heart and pericardium healthy. Nothing of pathological importance found in the abdomen.

Skull.—The pia mater and the arachnoid are healthy. There is some discolouration present on that part of the right lobe of the cerebellum which corresponds to the lateral sinus, the brain substance here being softened and pulpy, but normal elsewhere. There is no excess of fluid in the ventricles. The brain being removed, the dura mater is found softened, and a greenish discolouration is seen over that portion which invests the right temporal bone. On stripping this off from the bone, a discoloured clot is found, adherent to and occupying the lateral sinus, and extending some way into the jugular vein; the sinus is softened. The greater part of the surface of the temporal bone is smooth and firm, but at one spot in the groove for the lateral sinus it is discoloured, soft, and readily breaks down, disclosing a carious cavity, barely a trace of the structures of the middle ear remaining.

Remarks (by Dr. Cockle).—This case possesses interest, not only as illustrative of the admitted difficulty—indeed, at times utter impossibility—of arriving at a precise diagnosis of thrombosis of a lateral sinus, but also from the nature and extent of the chest lesions. I was disposed to regard the case as one of inflammation of the meninges from extension of the disease in the temporal bone, with possible abscess of either cerebrum or cerebellum, imminent or actual. Death followed too soon to allow the symptoms of pyæmia full development. But there seems reason to believe that, had no thrombosis occurred, abscess of the cerebellum would speedily have followed.

The New Febrifuge Kairin.—The reports of the remarkable anti-pyretic effects of kairin continue to increase. Most observers seem to agree that it is best to begin in adults with a dose of about 12½ grains, to repeat this two hours later, then to administer 9 grains every two or three hours, until the desired effect—decrease of temperature—has been obtained, when a smaller dose, about 5 grains, employed every three hours, usually suffices to keep down the temperature. But at the least indication of this falling below normal the remedy must either be omitted or given in very small doses and at very long intervals—say 3 grains every twelve hours. Should, however, the temperature again ascend, the same course as described must be gone through anew.—*Philadelphia Medical Reporter*, May 24.

Medical Times and Gazette.

SATURDAY, JUNE 21, 1884.

We have no doubt that cases of over-pressure of work in schools have occurred and will now and then occur in spite of all regulations to prevent them; but we believe that their extent and frequency have been much exaggerated; and it is certainly very remarkable how little care and judgment is as a rule shown in the selection of the alleged cases brought before the Houses of Parliament. A typical example of this was the subject of a question put in the House of Commons on Thursday week. Lord A. Percy asked Mr. Mundella whether he could state the result of his inquiries into the case of a boy named Wyles, brought before the Shoreditch Board of Guardians in March last, when two medical men had reported him insane, and his mother had said his insanity was due to overwork at school; and had further stated he had complained of having been beaten on the head with a ruler by a pupil teacher. Mr. Mundella replied that the London School Board had appointed a Committee to enquire into the case, and their report was to the following effect: The boy was ailing when he went home from school to dinner on a Wednesday; his mother kept him from school, and gave him some domestic medicine; next morning he had convulsions, and a medical man was sent for. The following morning—the Friday—it was found the patient had scarlet fever; and the case progressed favourably for a time, though it is not clear whether he was continuously under medical care. However that may have been, in the following week the boy was allowed by his mother to get up; and on the Monday week after the appearance of the rash he was out in the garden. He caught cold, and the next day had dropsy. All the evils liable to follow on such a state of things occurred, and, according to the report of the Committee, "cumulated into insanity." Mr. Mundella does not seem to have given any information as to the duration or the character of the insanity; but when the Committee reported on the case the boy was so far better as to be at home again. The Committee found that the boy had been beaten at the school, but there was not any evidence that he had been struck on the head; and Mr. Mundella added that the pupil teacher who, in disobedience to the rules of the Board, had inflicted corporal punishment, had been dismissed the service. It is clear enough in this case that the illness was entirely due to an attack of scarlet fever, and to the want of proper care of the boy by his mother.

It is well-known that Dr. Crichton Browne has taken great interest in this question, and that he has written a report on the subject; and it appears that some members of each of the two Houses of Parliament are much exercised in their minds because this report has not been published. On Friday last, Lord De la Warr asked the Lord President of the Council if he did not consider that Dr. Crichton Browne's re-

port ought to be laid on the table, as it referred to a subject which had lately been much under public notice, and would probably ere long be again before the House. Lord Carlingford, however, did not agree with the noble earl as to the character of the document in question. It was not, he declared, a report to the Education Department, but a letter of enormous length addressed to the Vice-President of the Council. It had originated in a conversation between that gentleman and the writer; and the former had been much astonished at receiving a document of such portentous length. The Education Department were in no sense responsible for it, and were not going to make themselves responsible for issuing it as a Parliamentary Paper. Lord Carlingford very naturally, both as a minister and as a ratepayer, thought it would be extremely inconvenient if anybody had the power to discharge such a document at the head of any public department, and then to require that department to publish it in the form of a Blue Book. He was good enough, however, to add that Dr. Crichton Browne was at liberty to publish the document himself.

In the House of Commons on the same evening Mr. Mundella was pressed to place the letter in question in the hands of the Members before the Education Estimates were brought forward; but in vain. The Vice-President of the Council said it had nothing whatever to do with the estimates, and was not in any respect an official document. He was, however, more polite to Dr. Browne, and more communicative to the public than his chief had been; for he informed us that the paper which has excited so much interest is a voluminous essay on a great number of disputable questions, relating not only to education, but also to medicine, lunacy, ethics, and social and vital statistics; and out of respect for Dr. Browne a *résumé* of it will be added to some general reports, from inspectors and others, which are shortly to be laid before the House. He added, however, that all those general reports are in contradiction of Dr. Crichton Browne's conclusions.

It cannot be denied that, as a rule, whatever Dr. Crichton Browne writes is not only very readable but well worth reading; and it will be generally admitted that, as a rule, a *résumé* of a document is but a very imperfect, pale, and uninteresting shadow of the document it is intended to represent. But on the other hand, the Parliamentary printers' bill every year, notwithstanding constant efforts of reformers to keep it down, is so enormously heavy that our high officials may easily think themselves justified if now and then they refuse to print a paper at the national expense, especially if they have no particular wish that the public should have the advantage of seeing it. Consequently, on their own showing, Lord Carlingford and Mr. Mundella have in this matter acted as brave and virtuous guardians of the public purse, and Dr. Crichton Browne has no right to feel aggrieved if they do seem to imply that, taking advantage of the innocence and inexperience of the Education Department, he has hoped to make them publish for him a voluminous essay *de omnibus rebus, et quibusdam aliis*. But Dr. Browne's explanation of the history of his report gives, as was to be expected, quite another view of the matter.

Dr. Crichton Browne, in his letter to the Editor of the *Times*, published on the 16th instant, confirms Lord Carlingford's statement, that his (Dr. Browne's) letter originated in a conversation with Mr. Mundella; but it appears that that conversation took place at an interview spontaneously and specially requested by Mr. Mundella; the result of which was that Mr. Mundella requested him to visit a number of elementary schools, accompanied by an inspector of his department, and to report to him any observations he might have to make as to the effects of the present system of education on the health of the children. Dr. Crichton Browne was very reluctant to undertake a work which he felt would be a very onerous one; but yielded at last to Mr. Mundella's persuasion, only bargaining that he should be at liberty sometimes to visit schools unaccompanied by an inspector. This he was authorised to do; and then he promised to do his best to carry out Mr. Mundella's wishes, and to incorporate in his report comments on some vital statistics, about which it seemed to him that Mr. Mundella had been seriously misinformed. Further, on the 19th of February last, Mr. Mundella stated in the House of Commons that "he had invited Dr. Browne to visit some of the public elementary schools in London, in company with one of Her Majesty's Inspectors, and to favour him with his opinion of their work from a sanitary point of view." It may surely be fairly said that when Lord Carlingford stated that Dr. Browne's letter or report "in no proper sense originated with the Education Department," and Mr. Mundella declared that it was "in no respect an official document," they made statements that, to use a favourite phrase of their political chief's, are perfectly inaccurate. At Mr. Mundella's earnest request, Dr. Crichton Browne, at great inconvenience to himself, has performed what Mr. Mundella said would be an excellent public service; and his reward is that the Government Department for the information of which he, by special request, laboured, tries to disown all responsibility for his report, and disparages it as being voluminous, highly controversial, abstruse, and so on. Such conduct cannot but excite the suspicion, to say the least, that the report really contains, as its author believes, "strong evidence that over-pressure exists in elementary schools, that it is even now injuriously affecting the health of the children, and that it promises a rich harvest of degeneration hereafter;" and that is not a report of the character that the Vice-President of the Council hoped to obtain.

During the discussions on the Educational Estimates in the House of Commons on Monday evening, several members commented unfavourably upon the manner in which Dr. Crichton Browne has been treated by the Educational Department; and Mr. Mundella finally said, that though he did not himself choose to incur the responsibility of publishing Dr. Browne's report, yet, if any honourable member or members thought fit to move for it, it should be printed at once. As Mr. Mundella was driven to make this concession,

he could hardly be expected perhaps to do so graciously; but a minister of his force and position should not be undignified and petulant even when complying against his will.

A CASE connected with the subject of over-pressure in elementary schools was decided by the Queen's Bench Division of the High Court of Justice, on the 16th inst., at the instance of the Bradford Borough Magistrates. The mother of a boy attending the Bradford Board School gave notice to the master that she had forbidden her boy to do any more home-lessons, and asked the master not to set him any more. The master continued, however, to set home-lessons, and when the boy came to school one morning having, in obedience to his mother, prepared no lesson, he was kept in after school hours till he had learned the lesson in question. The mother summoned the master for an assault, but the magistrates found there had been no actual assault, and dismissed the summons; stating a case for a higher court. Mr. Justice Matthew decided that the master had no authority to impose upon the children the duty of studying at home. The Education Acts being a statutory interference with the liberty of the subject, must as such be construed strictly; and neither the acts nor the bye-laws made under them gave authority for enforcing the preparation of lessons at home. The child had therefore in this instance been illegally punished—by being kept in beyond school hours to do what the schoolmaster had no power to order him to do; and the detention amounted in law to an assault.

A QUESTION put the other night in the House of Commons by Mr. Healy, M.P., to the Chief Secretary to the Lord Lieutenant of Ireland, relative to the recent appointment of Dr. Stewart Woodhouse as an Inspector of the Irish Local Government Board, met with the fate it deserved. Mr. Healy asked whether Dr. Woodhouse has had any experience as a dispensary or union medical officer, or as a medical officer of health; and, if not, how he became entitled (other than by acting for a short time as temporary inspector) to be placed over the numerous efficient Poor Law Medical Officers of Ireland who have acquired a practical knowledge of the duties of such a position by passing through these different grades of the service. Also whether Dr. Woodhouse is a member of the secret society of Freemasons, and how many members of the Local Government Board, and of their Inspectors, are members of that society. The Chief Secretary replied that neither he nor the Vice-President of the Local Government Board knew whether Dr. Woodhouse was or was not a Freemason, and that no enquiry on the point would be made. He added that the appointment was made in consequence of Dr. Woodhouse's high professional qualifications and valuable services. Dr. Woodhouse is an Ex-scholar and Diplomate in State Medicine of Trinity College, Dublin. He rendered signal public service in investigating, on behalf of the Local Government Board, the outbreak of fever in Mayo so long ago as 1879, and more recently in reporting to the Government on the distress in Donegal in 1882. For some months back he has, for the third time, been acting as an Inspector of the Local Government Board in connection with the "Labourers' (Ireland) Act" of last Session.

THE series of conferences held at the Health Exhibition under the auspices of the Society of Medical Officers of Health, the Sanitary Institute and the Parkes Museum were continued through last week, without any falling off of interest or success. We have selected for publication in another column two of the best papers and the two discussions which most nearly concern the medical reader. The subject of Thursday's conference was the spread of infectious diseases. Dr. Thursfield confined his attention to their spread by means of milk, while Professor Corfield gave an admirably lucid exposition of the more general aspects of the question. The subsequent discussion was chiefly remarkable for outspoken condemnation of other people's conduct. Professor de Chaumont criticised the sanitary department of the Indian Government for its obstructive attitude towards scientific investigation. Mr. Fleming blamed the inspectors of slaughter-houses, which were a disgrace to civilization, and Dr. Priestley animadverted on the carelessness of heads of families in respect to infectious disease occurring in their families. The chairman, Dr. Alfred Carpenter, concluded the conference by suggesting certain possibilities as to the evolution of hybrid germs.

FRIDAY'S conference dealt with a somewhat inflammatory subject—the notification of infectious diseases, and there was a considerable determination of doctors to the conference-room. The chairman, Lord Fortescue, who described himself as an old sanitary reformer, opened the conference in a most broad and statesmanlike speech, in which he pointed out the dangers of interference with the liberty of the subject, and the inadvisability of multiplied official interference. Dr. Alfred Hill and Dr. Alfred Carpenter then read the papers which we have given in abstract elsewhere. The former advocated imperative notification, and gave preference to the dual system—notification both by doctor and householder. The latter placed his trust more in moral suasion, which he would leave in the hands of the licensing corporations or the medical council. In the discussion which followed, Dr. Armstrong, of Newcastle, Dr. Dudfield, Prof. Corfield, Dr. Charles West, and Dr. Taafe, of Brighton, supported notification, while Mr. Wynter Blyth, Dr. Carter, of Liverpool, Dr. Mahomed, and Mr. Nelson Hardy expressed themselves as sceptical of the benefits derivable from the system. In spite of this even difference of opinion, the chairman, in summing up the debate, confessed that the scruples which he had expressed at starting had been dispelled, and that he thought a case had been made out for compulsory notification—not however by the doctor, but by the householder.

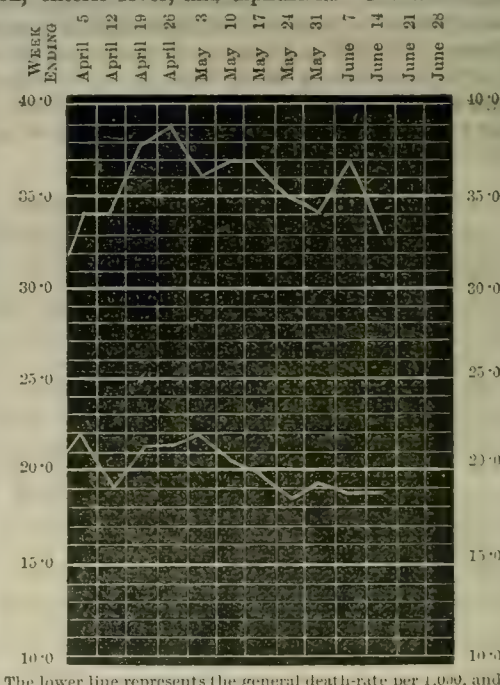
ON Saturday Mr. Wynter Blyth opened a conference on the Disposal of the Dead, with a most able and brilliant paper, which has deservedly been so fully reported in the daily papers that we need say no more of it here than that it advocated burial by rotation, the

land used for burial being surrendered after five years to agriculture or forestry. This suggestion, a little too bold and novel for the audience, did not meet with much consideration at their hands, and after a paper by Mr. Eassie, in praise of cremation, the discussion was entirely taken up by that burning question. Almost all the speakers expressed themselves as favourable to cremation, though one gentleman warned the conference that millions outside of it looked with horror on such a radical change in the disposal of the dead. The whole discussion showed, however, that there is no subject which is so rapidly ripening for settlement as that of burial by burning, as an Irishman would describe it.

The most important event of the week, however, in connection with the Health Exhibition came off on Tuesday, when the Prince of Wales formally inaugurated the work of the juries, and Sir James Paget, as Vice-Chairman of the Executive Council, delivered one of his well-devised and admirably executed harangues. He chose for his subject the relation of health to work. His description of the pattern healthy man as "one who lives long and vigorously, who in every part of his life, wherever and whatever it may be, does the largest amount of the best work that he can, and when he dies leaves healthy offspring," might form the text for a hundred sermons much needed in the neighbourhood of the Exhibition. We should find it difficult to say which was the most valuable part of the address, that in which he brought up his platoons of statistics to prove the pecuniary loss which the country sustains from illness and premature death, or that in which he placed before his audience "perfect national health" as an ideal as much worth striving for as renown for bravery, or for beauty, or for success in athletics and field sports. It would be useless to try to give in a few words the gist of Sir James Paget's address. It is all gist—a completely organised whole, from which it is impossible to extract a sentence without ruining its meaning.

There was during last week a fresh wave in the advance of small-pox, and 332 new cases were admitted into hospital, making a total under treatment of 1,238. That with such a large number of known cases, and with probably more than half as many hidden in private houses, the deaths should have only amounted to 27, ought to speak with convincing force to the anti-vaccinationists as to the effect of vaccination in modifying a disease which once had such a fearful mortality. The Metropolitan Asylums Board appear to be straining every nerve to cope with the growing epidemic; and they have opened a fresh hospital at Plaistow, in addition to the hospitals, camp, and ship already in use, and the old twin-ship *Castalia* has been moored in the river ready for further increase in the number of cases. Meanwhile complaints are being made that the central authority—the Local Government Board—gives no precise directions as to what its subordinates should do, but carefully leaves them to their own responsibility. The Board, it appears, has not yet made up its mind whether small-pox is aërially disseminable or not. In limiting the number of cases to be treated at Homerton it accepts the theory, and yet by allowing all the worst cases to remain there, it infinitely increases the risk of dissemination. At the same time it allows cases by hundreds to be fixed in the middle of one of the most crowded water-ways—the Thames—where, when there is little wind, the air swinging up and down the river with the tide, and polluted, according to Dr. Power's theory, with infective matter, can bathe the vessels of every country and impartially distribute small-pox to the uttermost ends of the earth. If small-pox has not a range of more than a few yards, why send all but the worst cases out of London; if it has, why set your centre of infection in the middle of King Neptune's highway?

Though the death-rate in London last week was only 18·8 per 1,000, the total number of deaths was as many as 25 above the ten years' average. The zymotic and respiratory deaths were both in excess of the usual number, the former to the extent of 30, and the latter to the extent of 10. The mortality from measles and whooping-cough showed a decline, but in both cases was above the average. The same was true of small-pox, enteric fever, and diphtheria. The deaths from



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first eleven weeks of the present quarter.

diarrhœa and dysentery, on the other hand, were only three fifths of the average number, a result probably due to the low temperature on the three first days of the week. The general death-rate of the 28 great English towns was 19·8, and their zymotic death-rate 3·0, the zymotic death-rate for London being 3·3. In Scotland, the general death-rate of the large towns was 22·7, and their zymotic rate 3·6.

The recent action of the Hampstead Vestry in issuing a circular of instruction with regard to the disposal of

infectious patients, is one which might with advantage be imitated by other metropolitan vestries. Most householders, and even many medical practitioners, are still in doubt as to what course to pursue when a case of serious infection occurs in a house. In these cases it is so important to take a stitch in time, that every doctor ought to have the appropriate procedure at his fingers' ends. It is this—when a case of small-pox occurs, which it is decided not to treat in the house, but for the treatment of which in hospital payment will be willingly made, telegraph at once to the resident superintendent of the Small-pox Hospital, Highgate, stating age and sex of patient, and enquiring whether he or she can be admitted. If an answer is received in the affirmative, apply at once to the vestry officers for an ambulance. The total charge for treatment at the Highgate Hospital is five guineas. In the case of fever or diphtheria, arising under like circumstances, telegraph to the Fever Hospital, Liverpool Road. If the patient can be admitted, an ambulance will be sent from the hospital. Fee, including ambulance, three-and-a-half guineas. The Hampstead Vestry, and indeed most of the London vestries, will, on application undertake the disinfection of clothing, &c., for a small, fee. These are facts which will be sought for in "Whittaker" in vain.

An epidemic of small-pox, writes our Liverpool correspondent, began here in October with 4 cases. In November 14 cases occurred, in December 54, in January 74, in February 59, in March 60, in April 63, in May 154, and up to June 16th 103 cases. Only 51 deaths have as yet occurred. Most of the cases are being treated by the parochial authorities at Mill Road Workhouse Hospital, which now contains 206 patients and has 140 vacant beds ready for fresh cases. This hospital receives small-pox from all the parishes, the other parishes receiving the paupers who are ordinarily treated in the hospital now devoted to small-pox. Considerable objection is raised to Mill Road as a small-pox hospital. It is situated in the midst of small houses that come up close to the hospital walls, and within a quarter of a mile radius of the hospital nearly as many cases have occurred as over the whole of the city. This is ascribed to the diffusion of the poison through the air from the hospital wards. The municipal authorities are considering the question of providing a permanent small-pox hospital for non-pauper cases, but up to the present time they are in a deadlock as to the form it ought to assume. Dr. Hamilton is strongly in favour of a hospital ship and advocates his plan zealously both in his place in the Council and in the columns of the public papers. His scheme does not seem to meet with much support as yet. Most people are in favour of some kind of hospital well isolated from the surrounding houses, but where it is likely to be located, when it will be built, and whether it will be a substantial permanent structure or temporary tents, are problems for the future to solve.

The presentation of the testimonial to Dr. Joseph Rogers will take place on Tuesday, June 24th, 3 p.m., at the rooms of the Medical Society of London, Chandos Street, Cavendish Square. Mr. John A. Shaw Stewart has kindly consented to preside on the occasion.

The Queen's College Inquiry Commission opened its enquiry at Galway on the 12th instant. Dr. Moffett, President of the Galway College, said that students came from all the provinces in Ireland, but the number had been seriously diminished by the dissolution of the Queen's University and by the recent social disturbances. The medical professors gave evidence to the effect that there were a fair number of typical cases in the medical department, but that there was absolutely no opportunity for the study of midwifery, and only an occasional opportunity for studying diseases of women and children. *Post-mortem* examinations were very rare. For operative surgery and morbid anatomy the students generally went to Dublin.

A case of considerable importance to Irish Poor Law Medical Officers came before Mr. Justice Lawson and a city of Dublin common jury, on Saturday, June 14th. Although appearing ostensibly as the case of "Rogers *against* the Guardians of Youghal Poor Law Union," the action was really brought at the instance of the Irish Medical Association, for the purpose of establishing the right of the Medical Officers of Dispensary Districts—who are *ipso facto* Medical Officers of Health for their districts under the 11th section of the "Public Health (Ireland) Act, 1878"—to be paid for their services in inspecting labourers' dwellings, under the "Labourers' (Ireland) Act, 1883," with a view of ascertaining whether such dwellings are fit for human habitation. The amount claimed by the plaintiff was 28*l*. Counsel for the plaintiff contended that the services rendered were in no wise any part of the duties of a Medical Officer of Health, as set forth in the Public Health Act, or in the regulations issued by the Local Government Board for Ireland under the authority of that Act. Proof having been given of the services rendered, Mr. Justice Lawson directed a verdict for the plaintiff for the amount claimed, with leave to the defendants to move within a week to have the verdict changed to one in their favour on the ground, as argued on their behalf, that the duties in question were within the ordinary functions of a Medical Officer of Health, and were therefore not to be remunerated by special fees. It is well to remind our readers that the salaries paid to the District Medical Officers of Health are absurdly small, ranging from 5*l*. to about 30*l*. a year. In the present instance, also, we understand that Dr. Rogers' car-hire alone amounted to some 8*l*., so great were the distances he had to travel in his inspection.

"The Faculty of Medicine of Paris," writes our Paris correspondent, "has sustained a heavy loss, in consequence of the unexpected death of Professor Wurtz, and the long foreseen retreat of Professor Gosselin. Professor Wurtz, who died almost suddenly from uræmia, in the midst of a most active and busy life, has left behind him an inheritance to be divided among many competitors, like that of Alexander the Great. He was a Professor at the Faculty of Medicine and the

Faculty of Sciences, a Member of the Academy of Medicine, and of the Academy of Sciences; a Senator for life, a Grand Officer of the Legion of Honour, and a Member of the Council of the Order, President of the Board of Health (Comité Consultatif d'Hygiène), and held besides a great many minor appointments. The political successor of M. Wurtz will probably be Admiral Peyrou. The Presidency of the Board of Health has devolved upon Professor Brouardel. As to the vacant Chair of Chemistry in the Faculty of Medicine, it will be disputed between M.M. Gauthier and Grimaux, both of them eminent chemists and well deserving men. But whoever may fill the vacant Chair, no one will for a long time possess the authority of Wurtz, who had become the undisputed leader of the French School of Chemistry (Dumas having retired from active life), and who was looked up to, not with feelings of admiration, but with feelings of adoration by his pupils. A great presence has undoubtedly passed away from amongst us, and it will take a long time to fill up the gap."

"Professor Gosselin, whose health had been failing for a long time, has resigned the Chair of Clinical Surgery, and according to the system of permutations adopted in Paris, his seat has been filled by Professor Lefort, who quits the Chair of Operative Surgery. A hot struggle is taking place for this Chair between Dr. Tillany, author of a well-known book on "Topographical Anatomy," and Dr. Lannelongue, best known to English readers as the surgeon who attended Gambetta in his late fatal illness. The Faculty was quite recently on the point of losing one of its most valuable members through an unexpected accident. While superintending certain repairs on his immense estate at Carqueiraune (Var) Professor Richet narrowly escaped being killed by the sudden falling of a wall on which he was actually standing at the moment of the accident. By a most unfortunate coincidence, Madame Richet, who had just come up, was crushed by a huge stone, which killed her on the spot. A stonemason was buried under the wall, and other persons were more or less severely injured. The eminent professor has met with universal sympathy under this most severe infliction. The funeral of Madame Richet, which took place at Paris, was attended by a dense crowd, which comprised nearly all the political, scientific and literary notabilities of the French capital."

"A most animated discussion took place in the Academy of Medicine, with respect to a paper read by Dr. Luys, on the Physical Movement of the Brain. While most communications presented to that learned body are discussed in a spirit of high impartiality and perfect good breeding, the "*mobilité*" of the brain gave rise to an unexpected exhibition of temper between the venerable Professor Sappey and Dr. Sée. An old feeling of personal enmity, which had been lying hidden for several years, suddenly broke out into a flame. The discussion, after lasting several days, was at length brought to a close, after an elaborate reply of Dr. Luys, in which he endeavoured to refute the principal arguments of his opponents. The general tendency of the discussion was opposed to the views of the eminent neurologist, it being generally allowed that while there exist physiological movements of the brain, such as those produced by circulation, collapse during sleep, and other causes, there are no physical displacements of the cerebral mass within the cranial cavity; so that a man may bend forwards without knocking his brain against the *os frontis*, and may roll from side to side during a restless night without altering the respective position of the skull and its contents. Dr. Luys intends to bring forward new experiments in support of his views. It is admitted on all sides that these displacements of the brain, if they actually exist, are comprised within extremely narrow limits, and never exceed a few *millimetres*."

"Several important Bills concerning medical subjects are at the present moment lying before the French Legislative Assemblies. One of these regulates the future condition of medical practice in France; another is concerned with the vast and important subject of lunacy, the whole fabric of the celebrated law of 1838 having become more or less obsolete, and requiring a total revision. When the reports upon these subjects are laid before the Senate and Chamber of Deputies, I will send you full information upon these highly interesting topics."

The Berlin Statistical Bureau is stated to be actively engaged in the preparation of a statistical account of all the hospital establishments of the German Empire, with especial reference to their sanitary provisions. With this aim, a comprehensive circular of questions has been distributed among all the clinical establishments, and civil and military hospitals. Material which has already been received in abundance, is now undergoing inspection and editing.

The Medical Officers of Schools' Association has lost but little time in giving evidence of its capacity for useful work. Towards the end of last week the Council issued a list of questions with the object of ascertaining the means adopted in different schools when dealing with the various aspects of infectious disease. We understand that the original draft of these questions was submitted to the consideration of the medical attendants of the principal educational establishments of the country, so that in their present form, and as regards the special branch of the subject with which they deal, they may be taken to touch on most, if not on all, of the principal points which are considered to deserve consideration, or to require further elucidation by those who are frequently brought into contact with one of the most important and interesting problems of school hygiene. The queries are about twenty in number, but they are so arranged that many of them can be at once and fully answered by the insertion of a simple "yes" or "no," or by a few figures, in the blank space which is appropriated to each of the replies. It being clearly impossible to adequately cover a large extent of ground in this manner at one time, the enquiries have, on this occasion, been limited to but one section of the subject.

The kind of information sought is definitely stated in each case, so that it may be easily rendered and in few words, while sufficient latitude is allowed for all varieties of individual and local practice; in other words, the net is cast over a limited space, but its area is clearly defined, and its mesh is so small as to catch all particles of value which come within its sweep.

Thus, three infectious diseases are specified—viz., scarlatina, measles, and German measles; and questions are put anent prophylaxis, quarantine, isolation, disinfection, management of convalescence, and the closure of the school, according as a pupil falls ill with one of those diseases during the holidays, or is exposed to their infection during the same period, or in the event of an outbreak of either malady occurring during term-time. Questions are also asked with regard to the admission of new pupils, and the return of old pupils after the holidays, as to whether certificates respecting their recent non-exposure to infection are, or are not, required from the parents or guardians. This is a good foundation, and if the paper (which is issued to schools of all classes) evokes anything like the replies which it should call forth, and if similar enquiries in the future meet with an equally ready response, the Council will be put in possession of material which should enable them to go far towards fulfilling the declared object of their labours, viz., "to collect and formulate the methods adopted by the various schools of this country, for dealing with the different aspects of infectious disease."

It is scarcely to be expected that the replies to such questions will exhibit a marked uniformity on all points; indeed, it is the admitted differences of opinion and of treatment—the somewhat chaotic variety of the usages at present in vogue—which, together with the acknowledged importance of the subject, prompted this particular line of investigation. It is hoped that the information asked for will be not only fully, but promptly rendered, so that there may be time for some sifting and classification of the replies prior to the 24th of next month, when a paper dealing with this subject will be read by Dr. Andrew at a meeting of the Association, and when the discussion to which it is hoped this paper will give rise will afford an opportunity for explaining the reasons which are held either to justify or to condemn the various methods adopted under apparently similar conditions. A further opportunity for discussing the subject will be afforded at one of the series of International Conferences on "School Hygiene," which will be held at the Health Exhibition on August 1st.

The elaboration, adoption, and publication of a set of rules for dealing with infectious disorders in their relation to school management, formulated after careful consideration and ample discussion, embodying the experience of those whose lives are spent in dealing with the question in all the aspects of both its social and medical relations, and revised by those who are specially engaged with the broad subject of national hygiene, is a work well worthy of the labour which it must involve, and of the support which it should secure from professional men and laymen alike. It could not but result in the better care of the young, and in strengthening the hands of all school authorities with something more weighty and conclusive than the opinion of an isolated medical attendant, however capable, or even the *ipse dixit* of the head-master, can ever be. We are, therefore, not astonished to learn that the governors of more than one important school have, unasked, already decided to contribute towards the funds of an Association whose work, if carried on as such a beginning promises, will redound so largely to the benefit of education. Mind and body are so inter-linked in the present race for knowledge, and with the due training of both the intricate details of school hygiene are so closely woven, that there appears some near prospect of the medical officer of a school becoming practically its head-master. Everyone, then, should feel the necessity of affording him all possible aid in fulfilling a trust which it is certainly not his interest to abuse.

A report of some judicial proceedings of a painful character has reached us from New Zealand. An inquest was held at Kaitangata, in that Colony, upon a patient who died from rupture of the uterus and vagina during labour. She was attended by a Dr. Parry, who, it was insinuated, was the worse for drink. Dr. Robert Stuart Reid, and Dr. Low, gave evidence to the effect that such laceration must have been produced by external violence, and should not have occurred if proper care had been taken. Guided by this evidence, the jury came to a verdict that "death resulted from hæmorrhage caused by a lacerated wound in the vagina and back part of the womb, caused by gross negligence and improper medical treatment at the hands of Lloyd Davenport Parry." Dr. Parry was subsequently tried for manslaughter and sentenced to four months' imprisonment. A meeting of the Medical Association was held to consider the case, and the feeling expressed was very decidedly one of sympathy with Dr. Parry, who was considered to have been unjustly condemned. Judging the case from the information before us, viz., the newspaper reports, it seems to us very difficult to understand now Dr. Reid can have been justified in giving the evidence he did. The nurse stated that Dr. Parry informed those present, after his first examination of the patient, that a rupture had taken place, and it was not alleged that he used any instrument. It is well known that rupture of the uterus and vagina frequently occurs without any obstetrical interference; indeed, some authors have estimated that it occurs more often without than with. In the face of these facts it is evident that there must have been something very exceptional about the case to justify Dr. Reid in asserting that the laceration must have been produced by external violence; and we do not find any mention of the reasons for his taking this view.

The new "Marine Biological Association" have elected a very strong and thoroughly representative council and will shortly publish a first list of donations.

Fifteen hundred pounds have been already promised, and when an appeal is seriously made there is good reason to hope that the 10,000*l.* required for building and equipping the first laboratory will be speedily collected. The Association is one which may be cordially recommended to the medical profession in this country. Certain methods of biological enquiry being forbidden, it becomes all the more necessary that those which still remain should be strenuously worked, before the hearts of the anti-vivisectionists take the octopus and the medusa within their large embrace. Dr. Dohrn is already devoting some of his tables to the study of physiological problems, and it is to be hoped that the English association will follow his example.

Just now the lot of a Councillor of one of our Royal Colleges is decidedly not a happy one, and the lot of a President is still less enviable. At the best of times the head that wears a crown has, we are told, an uneasy pillow, and it does not lie the more comfortably when subjects are unruly. As *Mr. Punch*, however, has recently reminded us, crowns are quite as unpleasant things to sit upon as to wear, and Dr. Andrew and Mr. Paul Swain, who have recently been induced to attempt this operation, deserve our respectful sympathy no less than Sir William Jenner and Mr. Marshall. They have all taken upon themselves, in what they believe to be the interests of the profession, difficult and thankless duties, and all must expect to hear things said of them which, be it in praise or in blame, cannot be quite to their liking. Whether it be pleasanter to be complimented and patted on the back, or to be censured and snubbed by our leading, or rather misleading journal, it would be difficult to decide; but at any rate, every one who takes a prominent part in medical affairs must be content to put up with one or the other. Unfortunately he cannot never quite foretell with certainty which it will be.

On Monday next Mr. W. H. Smith will ask the Prime Minister if, having regard to the great importance of the Medical Act Amendment Bill, as it may affect medical education in this country, he will name an early day for proceeding with the second reading.

For a Rural Sanitary Authority it cannot be said that the records of Chester-le-Street are all that could be desired. The last annual report of the Medical Officer of Health, Dr. Cameron Morris, records a death-rate of 23, and a zymotic death-rate of 4·04 per 1,000 of population, the latter being exactly double the rate of the previous year. Again, the mortality of infants and children under five years of age was nearly half the total number of deaths registered at all ages; but, the report points out as specially worthy of notice, that two inquests, resulting in verdicts of "death from improper feeding," were held on children in this district during the year 1883. The last lament is that the number of uncertified deaths during the year 1883 is largely in excess of that of the previous year; as against a total of 84, and a percentage of 17·14 in the year 1882, there was for last year a total of 112, with a percentage of 20·2. Surely it would be worth while calling the attention of the Registrar-General to this highly unsatisfactory state of things.

At an adjourned meeting of the Council of the Royal College of Surgeons, held on Thursday last, Mr. Charles Stewart, for many years Curator of the Museum and Lecturer on Comparative Anatomy at the Medical School of St. Thomas's Hospital, was elected Conservator of the Hunterian Museum, in the room of Professor Flower recently translated to the Natural History Department of the British Museum in succession to Sir Richard Owen, K.C.B. We venture to commend the choice of the Council, and to congratulate Mr. Stewart on his well-merited promotion. The energy with which Mr. Stewart devoted himself to his duties at St. Thomas's, and his especial aptitude for the work are well known, and they give earnest of what may be expected of him in his new and enlarged field of work.

FELLOWS IN DISCONTENT.

It is a remarkable coincidence that a single week should have witnessed a movement of discontent—to use the mildest term—on the part of the Fellows of both the Royal Colleges. Such a double movement, headed in each case by men of the highest repute for integrity, must make the present year memorable in the annals of medical progress, even if the greater glory of witnessing the enactment of a State measure of reform be denied it. The movement amongst the Fellows of the College of Surgeons has been as fortunate in securing the leadership of Mr. Pollock, as that amongst the Fellows of the College of Physicians had previously been in obtaining Dr. Andrew for spokesman. Neither of the leaders, fortunately, has hitherto been mixed up in medical politics, and the fact that they have at length been induced to step forth from their position of independence, and to head the two parties of reform, speaks immensely both for the importance of the issues and the prospects of success. Their accession gives to each movement a dignity and forcibleness which neither would otherwise have possessed, and provides some warrant for expecting a further accession of strength. Two men—two statesmen, we may almost say—the acknowledged leaders of medicine and surgery in this country—have now an opportunity of indissolubly connecting their names with the internal progress of their profession, and of adding one more benefit to the many they have already conferred on it. It would be too much to ask them to place themselves at the head of these movements, nor is it necessary. But if it were publicly known that the movement for reform in the College of Surgeons had the support of Sir James Paget, and that for reform in the College of Physicians the sympathy of Sir William Gull, the day of close and irresponsible government would be already past. We have no wish—indeed, it would be presumption on our part to imagine that we have the power—to force the hands of either Sir James Paget or Sir William Gull. But it must be remembered that both are

looked to for guidance in the matter; both are known to be sincerely in favour of liberal, and at the same time conciliatory measures, and their silent support would be sufficient in both cases to ensure the peaceful concession of reforms which must otherwise be fought for, not without risk of rancour.

With much apparent difference there is a singular similarity in essence between the two movements. An attempt has been made—why, we know not—to deny the real principle underlying the discontents at the College of Physicians, and to divert attention into a side issue. But it is plain to everyone, who is willing to look at the matter impartially, that the movement headed by Dr. Andrew is quite as much a popular one, as that which has secured the leadership of Mr. Pollock. Both are protests against irresponsible government, and both ought to be sure of the sympathy of all men who have the true welfare and progress of the profession at heart. It is whispered, but we trust without sufficient evidence, that the leading spirits in the Council of the College of Physicians are indisposed to accept the vote of the 5th instant, in the spirit in which it was meant, and unwilling to avail themselves of the door of retreat from an untenable position which was left open to them. No one wishes the President and Council of the College of Physicians to regard the vote as one of want of confidence. A vast majority of the Fellows wish them to loyally accept the principle which the vote involved, and to continue to hold the important and responsible offices to which they have been elected. If, however, there is to be a compulsory choice between measures and men, we do not doubt that the Fellows will give their preference to the former. It has been astutely attempted to represent the Council as the party of enlightenment and reform, and to condemn the action of the Fellows as the product of narrow selfishness. But the real principle at issue is this. Are the Fellows generally to be allowed the right—in reality, as well as in theory—of deciding who shall be elected to their body, or is the choice of new Fellows to be an inalienable and undisputed appanage of the President and Council? The question whether it is expedient that successful general practitioners shall be admissible to the rank of Fellow, is a minor, though an important one. For our own part, we do not believe that the general practitioners are at all eager for the reflected glory which their body might be supposed to derive from the election to the highest honours of their profession of two or three West-end practitioners. On the other hand, there can be no doubt that the admission of the principle might be attended by serious risks. It may be true that with the present office-bearers such risks would be reduced to a minimum. Hitherto, however, the Fellowship has been awarded for impersonal services to the profession and to science, and the suspicion that it might be possible to gain it by personal services to the chief electors, would be a disastrous feeling to introduce amongst the members of the profession. No office-bearer at the College, we are sure, would ever be tempted to traffic in his influence there, and few general practitioners, we trust, would bring themselves to regard the Fellowship as a purchaseable commodity. But human nature being what it is, it is important to guard against even the suspicion of the possibility of such commerce. We are convinced that the only way to keep the Fellowship really popular amongst the general body of physicians is to preserve it as the reward and rank naturally bestowed on all men of honourable conduct, who have sacrificed their prospects of immediate financial success, and have entered upon that toilsome and thankless period of self-culture, by which alone the true physician is made. Already in the case of several of our younger physicians this reward has been withheld so long, that they are beginning to profess themselves as indifferent whether they obtain it at all, while some of the older and more influential Fellows are complaining that their nominations of candidates for the Fellowship have been silently ignored. This surely is not a desirable spirit to foster amongst the class who must, in any event, always form the backbone of the College. We doubt if the omissions from the late and previous lists could have occurred if the College had adopted the plan recommended to it many years ago, and again advocated in these columns in the number before last. If the practice of the Royal Society had been adopted, and it had been customary to send round a list of all candidates nominated, together with their qualifications, the Fellows would have had an opportunity of seeing how far the Council had carried out, with wisdom and faithfulness, the rather invidious task allotted them. At present, it seems, the Fellows have to take the word of the Council as to the eligibility of half the names recommended for election. The adoption of the plan we advocate, and the infusion of a more living feeling of responsibility, both amongst the Fellows generally, and the office-bearers in particular, are, in our opinion, all that is necessary to restore peace and prosperity to the institution in Pall Mall.

Something of the same sort is needed at the College of Surgeons. If the members of Council had always regarded themselves as responsible to the Fellows who voted for them, in the same way that a member of Parliament is responsible to his electors; if, too, the Fellows had regarded the giving of their vote as a duty they owe to their profession, rather than as a client's duty to his patron, there would have been less need for the present movement. As a matter of fact, the members of Council have been allowed so long to feel that their position is an irresponsible one, that some have come to regard any remonstrances or reminders from their electors as an impertinence. If by any means it can be impressed upon them that their office is a temporary and responsible charge, which in a few years at most they must resign, there will be a hope that they may look further into the future, and take into account some of those currents of thought which are stirring among the younger members of the profession, and which are sure, sooner or later, to make themselves felt even in the Council. It may certainly be expected that this will be one of the first results of the action of the new Association of Fellows. If the Association is largely joined by surgeons of good repute, who will impress upon it moderate counsels and prevent it from playing into the hands of the obstruc-

tives, by making demands which the body of Fellows are not as yet prepared to endorse, we may foretell for it a most happy influence on the government of the College. But if it attempts at one *coup* to revolutionize the whole organization of the College, and to claim forthwith for the Members the same privileges that it demands for the Fellows, it will excite much opposition and will run a risk of losing even the moderate reforms which almost everyone is in favour of. The Association has done wisely in drawing up its first resolutions with a certain vagueness. It will be time enough to demand explicit reforms when its members have had more opportunity of discussion, and can feel their ground more securely. The changes in the constitution of the College, which we would ourselves suggest as reasonable and attainable, though in some respects they outstrip the demands of the Association, are :— First, the election of the President for a term of five years by the Fellows. Secondly, the election of a certain proportion, say one-sixth, of the Council by the Members. Thirdly, the right of both Fellows and Members to be present, and to speak at an Annual Meeting, held for the purpose of considering the Council's report, and ratifying or rejecting any alterations proposed as the general constitution of the College. Fourthly, the election of a certain proportion of non-councillors to the Court of Examiners. In time, of course, we should like to see the Members given a larger voice in the election both of President and Council, but we are convinced that it would be most impolitic to press for this reform until the minor changes suggested have been secured. The Association, in short, should work along the line of least resistance.

CHARITY OUT-AT-ELBOWS.

The number of charitable institutions and societies in London is truly marvellous; hardly a week passes without the formation of some new association intended to work wonders for the improvement socially, medically, or spiritually of the poor of London. Some of these, as for example the various Sanitary Aid Societies, start with very earnest convictions on the part of their promoters, and with carefully devised plans for leading steadily onwards to that grand millennium of health, thrift and knowledge, when they shall die a natural death, their part being played out, their ends accomplished. They are devised to attack some weak point in our system or to wage war with some giant of folly or ignorance, and their whole vitality consists in the energy with which their warfare is carried out. Other minor charities, such as our special hospitals, often owe their origin to less altruistic motives. They spring from small commencements with moderate aspirations and are undertaken full of the zeal and hope inseparable from specialism. They usually start with a Micawber-like trust in the future, the dominant idea being apparently to fix on a local habitation and a name, and then to justify their existence by portentous records of work done in the first few years. On the evidence thus afforded they hope to prove the vast need for their particular sphere of work, and appeal boldly to wider circles for support. But the support does not always come, or perhaps it is large in the first decade, and then dwindles down to a vanishing point. Many institutions commencing with small beginnings get lured on by specious promises to extend their buildings, to add to their number of beds, and to increase their departments with the idea of thus widening their range of usefulness. These devices are by no means confined to special hospitals; they appear to have been in times past the guiding rule of the larger hospitals to which medical schools are attached. Hence we see not only increase in the number of calls on the charitable, but also the need for increased annual subscriptions. It was at one time an aphorism in the management of hospitals that the condition of true prosperity was to be always in debt. It was thought that the aspect of poverty struggling on against adverse circumstances, with noble aspirations for the alleviation of suffering humanity, checked only by coarse considerations of pounds, shillings and pence, must inevitably touch the compassionate bowels of the wealthy, and produce a large roll of annual subscribers, and perhaps also a satisfactory list of kindly remembrances to be made known to all the world by occasional notices in the *Illustrated London News*.

These hopes are proving delusive. Our leading hospitals are, one after another, exhibiting signs of drought, the rain of subscriptions failing, nutrition drying up at its source. We have long been familiar with the announcement that "funds are urgently needed"; and now the struggle for existence appears to be entering a more critical stage. Dinners, concerts, and amateur theatricals are to be no more trusted, the cry for assistance now reaches an almost threatening pitch, foretelling suicide if voluntary contributions are not speedily forthcoming. It is in vain that space has been allowed to be filled occasionally by poorer gentry who aspire to the highest medical aid, without the troublesome expense of procuring it in their homes. The gratitude of such patients has not been found to take a sufficiently tangible form. Attempts have been made in some hospitals to remedy this defect by setting aside certain beds, or by opening whole wards for treatment, in which payment at a fixed rate shall be exacted. At St. Thomas's Hospital this system has long been in force, and the authorities at Guy's Hospital have recently taken a leaf out of the same book, the out-patient department there being now, to a certain extent, self-supporting. But these remedies are not yet sufficiently fashionable to allow of their universal adoption. Institutions loth to follow the lead have lately shown in the daily papers that they still believe in the efficacy of direct appeal made *in formâ pauperis*, and enforced by the threat of diminished usefulness, and the avowal of their determination to strangle the hydra of debt by closing certain wards. Lord Francis Hervey has put the case very plainly with regard to King's College Hospital, stating that the straitened and even necessitous condition of the finances shows that in the absence of a large accession of funds the wards must be partially or even wholly closed. He dwells on the reduction or total cessation of the benefits which the hospital affords to the poor in cases of sickness or accident; but in his appeal, or rather demand, he entirely overlooks the probable detrimental effect of the

course he suggests on the medical school. Nor is this an isolated case; a similar appeal has been recently made by the Lord Mayor on behalf of University College Hospital, and a similar semi-threat of diminished usefulness has been held out. The practical deduction is that the financial position of some of our hospitals has been considerably damaged of late years and reduced to the verge of desperation. The expenses have, in many cases, increased without a corresponding addition to the income; but even this supposition will not explain the whole position. We may attempt an explanation by reference to the arge number of varied calls from minor institutions, by solemn head-shakings over commercial depression, by indirect drainage due to Hospital Sundays and Saturdays; but a more potent cause appears to lie in the unfortunate spirit of antagonism so wilfully created by the spread of the so-called anti-vivisection literature, which tends to discredit all records of usefulness. This last has undoubtedly had a powerful influence in retarding or diverting the normal currents of charity from our larger hospitals, by the dissemination of erroneous ideas as to the studies pursued in the medical schools connected with them. Whatever be the ultimate cause, however, the fact remains that our greatest and most deserving forms of charitable relief are getting reduced to the sad alternative of either working at half-steam, or of closing their doors and putting up an announcement which will surely be a reproach to all who pass by—"No Assets."

THE SUPPRESSED REPORT.

A CONTRIBUTOR who has had prolonged and extensive experience of National and Board Schools, sends us the following remarks on Dr. Crichton Browne's report on education which the Government are being pressed to extract from the pigeon-hole to which they had destined t:—The plain truth of the matter no doubt is, that Dr. Crichton Browne was sent to bless, but has returned to curse, the present system, or rather the way in which it is carried out. He believes that he has collected "strong evidence that over-pressure exists in elementary schools, that it is even now injuriously affecting the health of the children, and that it promises a rich harvest of degeneration hereafter." Such an allegation should be met and disproved if possible, but if not, the sooner it is acted on the better. No good, except perhaps a more convincing proof of the weakness of a position that requires such measures, can follow the suppression of the report at a time when, with very different motives, teachers, parents, and ratepayers are inclined to join in any attack on a system which presses, or is believed to press, heavily on all. A long and practical acquaintance with the conduct of schools, and close association with teachers, has convinced me that this is no mere "scare," that over-pressure does exist, and does act injuriously on the health of teachers as well as scholars, and is moreover inseparable from the present system of payment by results. The present system I say, because, though this is not the place for a full discussion of purely educational questions, there are many conceivable ways of duly rewarding the diligent and conscientious teacher, and of exerting pressure on the inefficient and indolent, besides the regulation of payments according to Section 109. No doubt the unbounded confidence in, and liberality to teachers and managers exhibited in the returns of the great report of the Commissioners in the year 1860, were injudicious, and would soon have been found impracticable; and a system which allowed a teacher to display a few show children, probably of a higher social position than the rest, while the rank and file were neglected, and left to the tender mercies of monitors, was ill-calculated to raise the intellectual condition of the masses. But, on the other hand, that which in principle treats all children of the same age as physically and mentally equal, and makes the grant contingent to a great extent on the number of the passes obtained, offers a strong inducement to check the progress of the really promising, lest by aiming too high they should miss a pass, and to screw and drive the dull ones up to passing pitch. Progress must be constant, regular, and equable, though bodily and mental growth may be slow at first, and later advance by strides. The effects are seen on the teachers no less, I would almost say, than on the taught. I have known numbers of girls and some youths who with every natural aptitude for teaching have broken down in the second or third year of their apprenticeship and taken up with other employments. The children, too, as the annual inspection draws near are worked into a state of nervous agitation, shown by loss of appetite, headache, broken rest, and "examination nightmares." These are facts, but facts to which the statistical method of inquiry is inapplicable. Herein lay the weak point in Dr. Rabagliati's address at the recent conference of the National Union of Elementary Teachers. He could not find any increase in the number of deaths from *nervous* diseases. Of course not. Children do not *die* of such functional derangements, and the greater number of so-called deaths from disorders of the nervous system reported by the Registrar-General are cases of infantile convulsions, which, being due to improper feeding, are dietetic and not nervous at all; while if the pupil teachers to whom I have referred ultimately succumb to consumption, they appear in the return as shop-assistants, dressmakers, and the like. It may be asked how the average child can be overtaxed by the amount of *instruction* conveyed. For the proper appreciation of this, one must bear several points in mind; first the hereditary inferiority of brain power; next the absence of the *education* imparted by the life, the atmosphere of a cultured home; then the lower mental energy possessed and exercised by what we may without discourtesy call half-educated teachers, which will be realised by anyone who will call to mind how, when he was a school-boy, the 'varsity man and the usher taught just the same subjects; next we have the irregularity of attendance so fatal to the progress of the children and exasperating to the teachers, and lastly, all these factors at work in a foul atmosphere and deficient cubic space, the effects of which on mind and body of teachers and children I need not dilate on.

The Library of the Royal College of Surgeons will be closed on the 27th instant for the purposes of the examinations.

REVIEWS AND NOTICES OF BOOKS.

Text-Book of Inorganic Chemistry; by Professor Victor Von Richter. Translated by Edgar F. Smith, A.M., Ph. D. London: Henry Kimpton, 1884.—So numerous are the Text-books on Chemistry passing through the press at the present time that some *raison d'être* is demanded of each newcomer. The little volume before us is not unsupported by internal evidence in favour of its existence. The main object of the work may be stated briefly as follows:—It endeavours (and not without success) to arrange the known facts concerning the properties and composition and reaction of the various chemical elements and inorganic compounds around a great central system or fundamental idea, viz., the "Periodic System of the Elements." The law of periodicity of the chemical elements has been recently affirmed by Medelejeff and Lothar Meyer. It could only have been developed after the determination of the atomic weights of the various elements, and even now there are gaps in the series, which suggest at present undiscovered forms of elementary matter. The tendency of this deduction is to indicate the unity of matter, all the elements as known to us being simply "condensations of one and the same original substance." It has been observed that similar elements, *i.e.*, elements belonging to the same natural group, recur after definite increase in the atomic numbers; thus, there is an interval of 16 between the atomic weights of each of the following couples of elements—Lithium and Sodium—Beryllium and Magnesium—Boron and Aluminium—Carbon and Silicon—Nitrogen and Phosphorus—Oxygen and Sulphur—Fluorine and Chlorine. It is good that this law should be clearly enunciated and described for the benefit of the English student, most of the work connected with it having been done abroad. There are some features of the book which are novel, and, as it seems to us, objectionable—notably the order in which the various elements are introduced to the student's notice. The elements are described in the order of their "atomicities," *i.e.* the monatomic elements are first treated of, then the dyads, followed by the triads and so on. The result of this is that the student has learnt all about hydrogen and chlorine, and the other halogen elements before he has heard a word about oxygen, and is therefore presumably in ignorance of the constitution of the earth's atmosphere. It surely seems more rational to teach the composition of the air, which all are familiar with personally, before describing the properties of those gases which can only be obtained by chemical agency. Again, sulphur being a dyad, whilst nitrogen is a triad element, the student is taught how to make sulphuric acid before he has heard of the existence, formulæ and properties of the oxides of nitrogen, compounds which are most intimately associated with the oil of vitriol manufacture. It is to be hoped, therefore, that this so-called scientific method of classification will not find its way into our text-books, for it is inimical to the *practical teaching* and learning of the subject of chemistry. We would suggest a careful revision of the text, particularly of the numerical expressions in chemical formulæ, since we have detected several errors of the press therein.

The General Practitioner's Guide to Diseases and Injuries of the Eye and Eyelids; by Louis H. Tosswill, B.A., M.B., Cantab, M.R.C.S.; pp. 147. London: J. and A. Churchill. The aim of this little work is to supply the busy practitioner, in as few words as possible, with some information regarding the more common affections of the eye. Diseases of the vitreous, retina and optic nerve, strabismus and errors of refraction are purposely not touched upon. We believe that there is need for some such book, and we consider that Mr. Tosswill's effort to supply it is worthy of praise. Unfortunately in every such attempt the brevity required is apt to interfere with the clearness of description and the safety of advice so necessary. We should be sorry, for example, were the general practitioner to use atropine "whenever there is reason for suspecting disease or injury of iris or lens." The only mention made of the danger of atropine in cases of increased tension or threatening glaucoma is at p. 91, where its employment in predisposed eyes is merely mentioned among the other causes of simple glaucoma. Indeed the method of examination for increased tension described is in itself unsatisfactory. The use of hot fomentations in catarrhal and purulent ophthalmia and in the acute stage of granular lids, and the employment of poulticing "in all cases of dacryo-cystitis" are here recommended, contrary, we venture to think, to the experience of the majority of ophthalmic surgeons. We are given a most meagre description of a disease called "purulent ophthalmia of adults;" of its distinct nature we are still left in doubt. We must protest against the advice given under the head of sympathetic ophthalmia, viz.: "As a perforced stay in a darkened room is very depressing, it is advisable to order a generous diet, with stimulants at discretion." We doubt whether ophthalmia neonatorum can ever be caused by a bright light, and also whether sympathetic ophthalmia is more frequent in childhood. The difficulties of the general practitioner who has had a very imperfect education in ophthalmic surgery are on the whole well recognised. Much of the advice given is most excellent, and we trust that a second edition will further increase the usefulness of Mr. Tosswill's book.

Clinical Notes on Cancer—Its Ætiology and Treatment; by Dr. Herbert Snow. London: J. and A. Churchill, 1883, pp. 96.—This book is written with especial reference to the hereditary fallacy, and to sustain a neurotic origin for most cases of alveolar carcinoma. While we are much inclined to think that the hereditary nature of cancer has been somewhat exaggerated, we can hardly bring ourselves to regard it as a fallacy in the logical sense. That we do inherit peculiarities from our ancestors is beyond all dispute; and if, as a whole, our organism tends to resemble those who have given us birth, it is not difficult to conceive that the individual cells of which we are composed should also tend in their turn to resemble the cells from which they were derived. There is nothing special in the cell elements of a cancer; it is rather their position and arrangement which make them dangerous, and convert them into a "cancer." It is a tendency on the part of the cells to get into a state of rebellion, and to trespass in regions where they are not wanted; for cancer, or, more properly speaking, carcinoma, may be defined as unnatural collections of epithelial cells among the connective tissues. We fail to see the force of the arguments in favour of a neurotic origin: the author himself in one of the most typical forms, the epithelial cancers, dispenses with it, and attributes the growth of this—one of the commonest forms also—to the effects of "lowered healing and recuperative power from advancing age." A study of the disease and its peculiarities can hardly fail, we think, to show that cancer is one and the same thing, histologically speaking, wherever it occurs, and by whatever name it is qualified, and that what is its cause in one place will answer equally well elsewhere. If it be due to neurosis, why is it so localised? Why does it not occur in the organs indifferently? We fancy the book will not do much to establish the neurotic origin of cancer.

On Malignant Disease (Sarcoma and Carcinoma) of the Larynx; by Henry T. Butlin, F.R.C.S. London: J. & A. Churchill.—This dainty little volume is a further contribution to the subject of malignant disease, and is to be regarded as a continuation of Mr. Butlin's former work on "Sarcoma and Carcinoma." It is published separately, we are told in the preface, in order that its author may take an early opportunity of correcting some misapprehensions which seem to exist in regard to the scope and intentions of his first book on this subject. The latter work was in no sense a complete one, and made no pretension to be so; it did not include the whole subject, but only such part of it as had then come within the author's personal experience. It was a *sine quâ non* that all cases should be backed by a careful and adequate microscopic examination; a condition which not unnaturally lessened the total cases which could be utilised, besides altering in some measure the statistics usually accepted up to that time. The present work, based on the same lines, is a further chapter in the history of this important subject, and one which cannot fail to be of great service to those who are interested either in the pathology or the literature of malignant disease.

ABSTRACTS AND EXTRACTS.

PHARMACOLOGY AND THERAPEUTICS.

TRANSFUSION OF BLOOD REGARDED AS A HÆMOSTATIC PROCEDURE.—Professor Hayem, in a recent number of the *Gazette Hebdomadaire*, has contributed the following remarks on this subject:—"I have asked myself how it is that injection of blood into the circulating current produces a hæmostatic effect, and have been thus led to perform some experiments, the principal results of which were published in the *Révue Scientifique*, July 3rd, 1883. But that succinct note which sums up prolonged researches seems to me to be little known, although it contains facts having a direct application to human pathology, and may also be regarded as a contribution to the experimental study of hæmostatic medication. In 1882, I was of opinion that blood in its complete state, including living and active hæmatoblasts, must exert a more active influence than other intra-vascular injections on the coagulability of the blood. The experiments alluded to, in which I have studied in this respect the effects of distilled water, artificial serum, chloride of sodium, serum of the blood obtained from an animal of the same or a different species, natural serosities which are not spontaneously coagulable, the solution of the ferment of fibrine, blood in its complete condition, and defibrinated blood, have led me to the adoption of new views. The most active of these liquids is the serum of the blood; but it is of extreme importance to make the remark that the modification produced in the coagulability of the blood by intra-vascular injections, only becomes evident on the living subject in blood which is stagnant within the vessels. Thus, in the fundamental experiment we observe the singular fact of the almost immediate coagulation of the stagnant blood in a vascular segment, while the general circulation undergoes no apparent disturbance, and to obtain this result, it suffices to introduce into the circulating torrent some cubic centimetres of serum. . . . . In the article referred to will be found a summary statement of the mode of action of the different substances employed; and here it is only necessary to allude to the practical point of view. The possibility of rendering stagnant blood more coagulable, without any prejudice to the economy, is applicable in therapeutics to the treatment of grave hæmorrhages, and perhaps to the treatment of aneurysms. It is, in some sort, the experimental demonstration of the existence of active hæmostatic procedures and agents which, combined with measures for rendering the circulation slower, may favour the formation of coagula in aneurysmatic vessels. In all cases, my experiments having been made with precisely the same liquids that are employed in the different kinds of transfusion, it seems to me certain that the principal practical result of these operations consists in the increase of the coagulability of the blood. It results from this that the indication of transfusion should be drawn, rather from the difficulty of arresting hæmorrhage when the blood is only slightly coagulable, than from the necessity of furnishing a new supply of the liquid to the vascular area. In order to obtain the maximum of useful effects, we should employ serum, that is, the natural liquid which, according to A. Schmidt, contains the largest proportion of that indetermined matter which he has termed the ferment of fibrine. Blood in its complete condition is, however, one of the least active agents. Defibrinated blood, artificial serum, or even distilled water, have a far more powerful action—weaker, however, than that of the serum. But I ought to give the caution here, that if in place of employing on man the serum of human blood, recourse be had to that of the blood of an animal, there would be a risk of producing accidents of the highest moment. The effect of a foreign serum on the circulating blood is to immediately render this grumous, so that it carries along thousands of concretions which, arrested in the minute vessels, give rise in the animals experimented upon to innumerable hæmorrhagic infarcts."

EXCESSIVE USE OF MORPHIA.—The subject of a remarkable case, reported by Dr. Hinckley in the *New York Medical Journal* for March 29th, was a married woman, 26 years of age. Three years ago she was treated for threatened abortion with subcutaneous injections of morphia, gradually increased in strength from the third to the eighth month of pregnancy, when premature labour occurred. She then found herself unable to dispense with the morphia, and continued to use it herself in gradually increasing doses. During a second pregnancy, the daily dose was reduced to ½ grain. Subsequently she again increased it, using 1 drachm of the crystals each week for three months. Then, becoming reckless on the death of her husband, she took a drachm (*sic*) of the sulphate at night, and 25 grains in the morning, and continued this quantity for nine days. Then she reduced the dose to 25 grains *per diem*, which she has continued for some time, occasionally taking an additional 25 grains during the twenty-four hours when she feels particularly "blue." This was her habit when she first came under Dr. Hinckley's observation; and on three successive evenings she dissolved and administered to herself gr. xxv of the sulphate at each sitting, in his presence. Her hair was said to be falling out; constipation was severe, and appetite much impaired; the excretion of urine is increased, sleep is fitful, spasmodic muscular twitchings are frequent during the day; she is easily frightened and irritated, and cannot control her emotions as formerly. There is no uterine trouble, but no menstruation has occurred for twelve months. After eight or ten syringefuls of her daily dose had been introduced *sub cute*, her cheeks were observed to become rosy, her eyes brilliant, her voice softened, and speech became more voluble.

SUBCUTANEOUS USE OF MORPHIA FOR ELDERLY PERSONS.—A writer in the *Boston Medical Journal* (May 1), observes that the fact is not sufficiently borne in mind, that not only children but old people are peculiarly susceptible of the action of anodynes, and that medical men often do not make sufficient reduction in the dose appropriate for an adult. The hypodermic method greatly increases the risk of an overdose, even one eighth of a grain having caused alarming, if not fatal effects. Symptoms indicative of narcosis are often wanting, until the dose is repeated, when they come on with alarming rapidity, and the additional dose cannot be removed as it might be if administered by the stomach. For this and other reasons the writer strongly recommends the use of pills or granules in place of injections. When rapidity of action, or the prevention of the rejection of the opiate by vomiting is imperative, the hypodermic means may be required, but in ordinary practice the use of the pill form is safer and better.

BONJEAN'S ERGOTINE.—It having been stated that Bonjean's ergotine sometimes exhibits poisonous properties, Dr. Bonjean, in a note published in the *Bulletin de Thérapeutique* for April 15th, declares, that in ergotine prepared according to his procedure, such an occurrence is impossible. As he demonstrated to the Société de Pharmacie in 1840, when their gold medal was awarded to him, in ergot of rye there are two distinct principles, viz., ergotine, devoid of all poisonous action, very soluble, and forming a limpid solution without any deposit; and a poisonous substance, insoluble in water, and soluble in ether. Ergotine, deprived of this substance, cannot give rise to the slightest accident. The ill effects, when observed, will be found to have arisen from the ergotine not having been completely deprived of this substance, as M. Bonjean proved in his treatise ("Traité de l'Ergot de Seigle") published in 1846. Ergotine, when isolated by his procedure, may be given to the extent of several grammes *per diem* without inconvenience; but the ergotine of commerce always contains more or less trace of the active poison contained in ergot of rye.

MERCURY IN CROUP.—In the *New York Medical Record*, for May, appears a paper by Dr. Jacobi, mainly devoted to the mercurial treatment of pseudo-membranous

croup. Why he uses this expression, is not clear, for the paper throughout seems to deal with cases of true diphtheria. It is a line of treatment that has been given up in this country almost entirely, after an extensive trial, as being of too lowering a nature, but it seems to have always enjoyed a certain amount of favour in America. Dr. Jacobi recommends the administration of frequent doses of corrosive sublimate, even young infants being able to bear a daily dose of half a grain. He has not met with much difficulty from salivation or stomatitis, nor has he found gastro-intestinal complications to be a source of trouble. When the medicine is not well supported by the mouth, he recommends the inunction of the oleate.

Mercury in the Treatment of Syphilis.—Dr. J. V. Shoemaker finds that mercury by the mouth does not answer in all cases, and cannot be tolerated in some. Under such circumstances, he has obtained rapid and good results from the hypodermic injection of one-tenth of a grain of corrosive sublimate, dissolved in water, deep into the subcutaneous cellular tissue—preferably in the superior or inferior scapular, or in the sacral, region. Abscesses do not follow, and he has never seen any unpleasant consequences. The eczematous condition of the skin, which sometimes follows the inunction of mercurial preparations, can usually be avoided by the use of a hot-air or steam bath before the inunction; it causes the ointment to be absorbed better, thus rendering its application more effectual and preventing irritation of the skin.—*New York Medical Journal*, April 26th, 1884.

Thallium in Syphilis.—As the result of the trials which he has made at the Lourcine Hospital, Dr. Pozzi gives only the following qualified approval of its efficacy:—(1) Iodide of thallium is an alterative. (2) It has produced some improvement in vulvar syphilis, but this amelioration may be imputed, up to a certain point, to rest, cleanliness and improved hygiene. (3) It enters the economy, since it induces some swelling of the gums, and the formation of a white line along their edge, and is also found in the urine. (4) If the amelioration observed in these cases is imputable to thallium, it still occupies a far lower rank than mercury. (5) Supposing that thallium combats secondary symptoms efficaciously, we still have to enquire whether it leads to a durable amelioration, and whether tertiary symptoms are lessened or retarded.—*Gazette Médicale*, March 29th.

White-Lead Paint Treatment of Erysipelas.—Dr. Stirling relates some cases in corroboration of the utility of painting the surface in erysipelas with white paint, as recommended by Mr. Barlow last year. He has chiefly tried this in traumatic erysipelas, of which it shortens the course and relieves the pain almost immediately. In idiopathic facial erysipelas it is a far preferable application to flour or even iodised collodion.—*Australian Medical Journal*.

The Normal Alcohol of the Tissues.—In relation to a controversy that has been going on between Drs. Dujardin-Beaumetz and Perrin in the Academie de Médecine on the elimination of alcohol which has been introduced into the economy, Dr. Béchamp declares that fallacies in the conclusions must exist, inasmuch as the economy itself fabricates and eliminates alcohol, independently of any being swallowed. In proof of this he states that he has found alcohol in the urine after some days of fermentation, as also in the parenchyma of the liver and in the muscular substance, previously to putrefaction. An ostrich's egg also may produce two cubic centimetres of absolute alcohol. It is also produced in the *living* economy from the urine of persons who have completely abstained from its use. Milk also contains it, and even substances totally devoid of saccharine matters. M. Gautier observed, that although Dr. Béhier's observation was foreign to the subject of controversy, which was the form in which alcohol that had been absorbed is eliminated, yet, from his own researches, he could corroborate the statement made, that living tissues do generate alcohol independently.—*Compte Rendu Général*, May 21st.

Infant Feeding in Illness.—The following useful observations, by Dr. Keating, occur in the *Archives of Pediatrics*:—"If a child is so weak and exhausted that it will not digest the mildest form of prepared food, and it is impossible to obtain the breast, it is useless to weaken the condensed milk, or whatever we use, to such a degree as to make it absolutely valueless as a nutrient. The proper thing to do is to give some form of food which requires but little action of the digestive juices, or to prepare the food so that it is partially digested beforehand. I have used for some time, with great advantage, egg-albumen dissolved in water as a food for sick children when the stomach is intolerant of ordinary milk food. I have also observed that gum-arabic water will nourish for a surprisingly long time and allay irritability. Barley food would be valueless in a case of this kind, and pure cow's milk, diluted to resemble as closely as possible the mother's milk, would be regurgitated. In such cases the preparation of milk which has undergone partial digestion by the pancreatic ferment, in an alkaline condition, I have found most useful. The preparation is one which must be made with care, and according to the following directions: Into a clean quart bottle put a powder of five grains of extractum pancreatis, and fifteen grains of bicarbonate of soda, and a gill of water; shake, and then add a pint of fresh milk. Place the bottle in a pitcher of hot water, or set it aside in a warm place for an hour or an hour and a-half, to keep the milk warm, by which time the milk will have become well peptonised. When the contents of the bottle acquire a greyish-yellow colour, and slightly bitter taste, then the milk is thoroughly peptonised—that is the casein of the milk has been digested into peptone. Great heat or cold will destroy this digestive action; so, to prevent all further action when you think that digestion has proceeded far enough, at once place the bottle on ice, or into a vessel of boiling water long enough to scald the contents, and it may then be kept like ordinary milk. The mother should be warned to frequently taste the milk during its digestion, and as soon as the bitter taste is in the *least* apparent, the bottle should be placed on the ice for cooling, as in these cases it is sufficient to partially peptonise the milk. I mention these facts, particularly as, strange to say, I have always failed with it in hospital practice, whereas in private I have had some excellent results, owing, I think, to the extra care in preparation. *Whey* is another admirable alternative in these cases. It may be made with wine, when there is great weakness; but mothers do not often know how to make wine-whey. The proper method is, when the milk is boiling, to put in a wine-glassful of sherry, say, to the pint; and if the curd does not separate, then add more wine until it does. As soon as you notice separation of the curd, add no more wine, but let the mixture boil for a time, until the whey and curd has become thoroughly separated — consuming about five minutes. This should be thoroughly strained. It has been recommended to use *lime-water* in the feeding of infants and young children. I am opposed to its indiscriminate use. I have seen children who could not tolerate even the weak preparation of the pharmacopœia. Undoubtedly at times it may arrest vomiting, as we all know, both in children and adult practice, but I much prefer, when it is necessary, to use an alkali—and if you use cow's milk raw for a young babe, it is always advisable to see that it is made alkaline—to do it with a small quantity of bicarbonate of soda. . . . I have one word of caution to give you in regard to the use of *sucking-bottles*. They are certainly useful as labour-saving machines in early infancy, and when thoroughly cleansed and carefully watched are no doubt indispensable; but I have long come to the conclusion that if you can persuade the mother and nurse to take the time and feed the child that is old enough to manage by the cup or spoon, the word *colic* will seldom meet you in your practice. I am convinced that in institutions for foundlings, if it could be possible to discard the bottle, the percentage of deaths would be much diminished."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 10TH, 1884.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Three Forms of Spinal Deformity.

MR. ARBUTHNOT LANE read a paper on this subject. He described three distinct forms of spinal deformity which occurred among labourers who carry heavy burdens. In these the normal curves of the spine were modified to transmit most advantageously the superjacent weight to the pelvis and lower limbs. It was highly probable that there were many other distinct forms besides modifications of the three described. The first form occurred in men whose work consisted in carrying heavy weights on their right shoulders, as draymen. In the case of a man supporting a weight in this manner, it would be found that his spine formed a large curve with its convexity to the right, and that the upper dorsal cervical vertebræ were flexed more than normal. The accompanying slight rotation of the bodies of the vertebræ also affected the position of the ribs. By the continual pressure which the weight exercised on the upper two or three ribs on the right side, they acting as levers on the bodies and transverse processes of the vertebræ, would rotate the upper three or four dorsal vertebræ towards the left, forming a small curve with its convexity to that side. The position of the spinous processes in their single curve was not modified by this rotation to any extent. The formation of the upper curve necessitated a compensatory increase in the deviation of the lower part of the spine from the median line, with an increased rotation of the bodies of the vertebræ. The form of the bodies and intervertebral substances, and the position of the ribs on either side, were altered by these progressive changes. In the lumbar region there was no compensatory curve to the left. The second form is caused by carrying heavy loads on the back. Here the pressure produced compression, changes in the bodies and intervertebral substances of the fifth, sixth, and seventh cervical vertebræ, straightening of the upper two thirds of the dorsal spine, marked and progressive lordosis, and destruction of the bodies and intervertebral substances of the lower dorsal and upper lumbar vertebræ at that part of the spine where the straightened dorsal part joins the lumbar convexity. It also produced a form of spondylolisthesis, due to the yielding of the last lumbar vertebra, or upper part of the sacrum, with the development of osteophytic outgrowth. There might also be some lateral deviation of the upper dorsal spine, due to a greater destruction of one side of the vertebræ in the lower dorsal and upper lumbar regions. The third form was caused by carrying loads on the head. The changes produced were most marked in the cervical spine, where a well-marked lateral curve was produced, with its convexity to the right. The axis and third cervical were frequently fused together, and the bodies and fibro-cartilages of the cervical vertebræ were much modified by pressure, especially in the concavity of the curve and between the upper vertebræ. There could be seen a regular gradation from partial compression of the intervertebral substances to their complete removal, when synostosis of the vertebræ ensued. In the dorsal region there were two compensatory lateral curves, the upper being the best marked, though it was not so definite as that in the cervical region. The convexity of the upper one was directed to the left, that of the lower to the right. The author also showed specimens from the Museum of Guy's Hospital, in which there was osseous ankylosis of the occipital bone with one or more cervical vertebræ. He wished to include these under the same class, as being due to the effect of weight sustained on the head.

MR. HAWARD said surgeons would agree with Mr. Lane as to the first variety. It had been described by many authors, and especially by Americans, and had by them been called "grocers' boys' spine," "porters' spine," &c. Mr. Lane, however, was the first to show and describe *post-mortem* specimens. In his own opinion there were two chief factors, the habitual maintenance of the body in one position, and the use of the muscles of one side, which this position involved. He thought mere weight would not account for rotation; while the origin of the great muscles from the middle line, and their insertion into the transverse processes seemed to him a more reasonable explanation. Formerly it was held that the muscles on the concavity were in action; but, in reality, these muscles were flaccid or passive, while those on the convexity were the active ones. As regarded treatment, he did not think any instrument could be made which would give the needful amount of pressure on the ribs, to overcome the rotation, without producing a sore; the more rational plan was to bring into action the defective muscles by artificial antagonism. He could hardly accept Mr. Lane's proposal that carrying weights, that is to say pressure, had led to the ankylosis which had been described: it did not occur in other joints; a relaxation of the ligaments rather resulted.

MR. NOBLE SMITH thought that rotation of the bodies occurred naturally as the spine became curved laterally. He agreed with Mr. Haward that pressure could not produce ankylosis.

DR. CHAMPNEYS said that in cases of scoliosis in women it was quite usual for the sacro-iliac synchondrosis to be united on the corresponding side.

On a Particular Form of Amnesia—Loss of Nouns.

DR. BROADBENT communicated this paper, of which the following is an abstract:—The paper was a contribution towards the elucidation of the mechanism of speech and thought in continuation of previous attempts in the same direction; the opportunity being afforded by an examination of the brain in a case characterised by the impossibility of saying nouns substantive while all other parts of speech were spoken freely and distinctly. The patient was a gentleman, aged 77 at death, seen at intervals with Mr. Meehan between September, 1878, and December, 1883. He had a slight and fugitive attack of right hemiplegia, with predominant affection of the face and hemianæsthesia, and an affection of speech, which in about a month settled down to the defect, which remained the same for more than five years. During all this time he never uttered a noun, except once or twice by accident, so to speak, and inappropriately, while he could say other words and employ long phrases so long as they did not contain a noun. When he wished for anything he would say, "Please give me the one," and the nurse would make guesses what it was. Other mental functions normal. The lesions found after death were limited to the left hemisphere of the brain, and consisted of small and unimportant depressions in the posterior part of the intra-ventricular corpus striatum, slight diminution in size of the thalamus, complete atrophy of the calcar avis in the posterior cornu of the ventricle, and, finally, an extensive area of softening within the fissure of Sylvius in the posterior half of its extent, sparing altogether the anterior and antero-lateral convolutions of the insula, the third frontal, and the foot of the two convolutions of Rolando, destroying completely the two long posterior convolutions of the island and the subjacent white fibres down to and including the corresponding part of the external capsule, but not invading the lenticular

nucleus (or extra-ventricular corpus striatum), and undermining the supra-marginal lobule and angular gyrus, but not implicating the entire thickness of their axial white fibres or reaching the convexity of the hemisphere. The infra-marginal or first temporo-sphenoidal convolution was remarkably little affected. Another case seen with the late Dr. Frampton was related, similar in all respects except that the patient could not read. No *post-mortem* examination was obtained. The hypothetical mechanism of speech and thought, tentatively advanced by the writer in previous papers, assumed that in the highest or cerebral, as in the lowest or spinal nerve-centres, there were sensory and motor departments, the motor apparatus being educated, so to speak, by the sensory; this education being represented structurally by the formation of groups of cells, through which orderly movements were effected. On the sensory side, it was supposed that in the integration of speech and thought, perceptions from the different perception centres converged upon a common cortical area where they were combined or elaborated into an idea, this idea being symbolised by the associated auditory perception or name. The corresponding motor-centre to this name or idea centre was supposed to be a propositionising centre, in which would take place the mental rehearsal of a phrase or sentence, which was a necessary antecedent to its utterance. Hence if the path from the visual perception centre to the naming centre were interrupted, the sight of an object would no longer recall its name, and a case answering to this condition was related in the first paper on the subject read before this Society. Again, damage to the tract of fibres passing from the auditory perception centre to the naming centre would prevent the patient from understanding what was said to him. The case forming the subject of this paper was supposed to illustrate damage to the communicating tract between the naming and the propositionising centres. The patient could rehearse a phrase in his mind, but the name or noun was not supplied from the appropriate centre. Attention was further called to other remarkable facts in connection with loss of speech.

Mr. Horsley enquired as to the condition of the hippocampal fibres, whether they were destroyed or not.

Dr. Myers rather took exception to the designation of this case, loss of nouns. He contended that the patient made use of the equivalents, viz., pronouns. The sub-division of words, nouns and pronouns was a grammatical rather than a logical one. He enquired whether the power of writing nouns was also lost.

Dr. S. West referred to a case which might be considered as a complement, or a supplement, to this one recorded by Dr. Broadbent, in which the centre that was unaffected in his (Dr. Broadbent's) case was found diseased. There was sudden aphasia with incomplete hemiplegia and hemianæsthesia. At the autopsy, the only lesion found was softening of the marginal convolutions.

Dr. Broadbent replied. He defended his position, arguing that whether the distinction between nouns and pronouns was logical or not, there was a physiological difference, and the power of using the respective words was lost in the case of his patient.

Embolism of the right middle Cerebral Artery producing left Hemiplegia and Hemianæsthesia—Absorption of a large portion of the Right Hemisphere—Death seven years later.

Dr. Seymour J. Sharkey, read the following abstract of the above case.—A woman, aged 34, was admitted into Guy's Hospital on March 8th, 1876, with the history that three weeks previously, being in her ordinary health, she was suddenly attacked with giddiness, faintness, and nausea. These symptoms were followed by twitching of the left side of the body, general convulsions and loss of consciousness. After four days she recovered consciousness, and was then found to be completely paralysed on the left half of her body, and in addition to have lost sight, hearing, taste, smell, and common sensation on the same side. The ophthalmoscope revealed no disease of the fundus of either eye. There was a systolic murmur to be heard all over the cardiac area, but there were no other physical signs of organic disease. Four weeks after the commencement of her illness it was found that the anæsthesia was less marked. Six weeks and a half from the onset sight and hearing were completely restored, and within three months common sensation had returned. The power of motion improved greatly in the left leg, and much more slowly in the arm, and the patient returned home four months from the beginning of her illness, with perfect sensation, both common and special, with her left arm almost useless, but with very fair power in the leg. Seven years after these events the patient was admitted into St. Thomas's Hospital, and there died of cardiac dropsy. At this time she was found to have no loss of sensation, and sight and hearing were equally good on the two sides. The left leg was slightly paralysed, the left arm much more so. At the *post-mortem* examination aortic disease, with general dropsy and the usual chronic congestion of the viscera were found. The left hemisphere of the brain was normal, as were all the cranial nerves. A large portion of the right hemisphere, that part, in fact, which was supplied by the middle cerebral artery, had been almost entirely absorbed. *Conclusions drawn.*—(1) That if the angular gyrus and superior temporo-sphenoidal convolution be respectively connected with sight and hearing on the opposite side of the body their destruction does not involve permanent loss of these special senses. (2) That, contrary to what has lately been asserted, each hemisphere *is* specially connected with the sight of the opposite eye. (3) That sensation, whether common or special, on each side of the body is not so intimately connected with certain definite areæ of the opposite hemisphere as is the case with motion. For the patient gradually recovered from her hemianæsthesia notwithstanding the destruction of those regions, disease of which originally gave rise to it, a fact which shows that other parts, either of the same or of the opposite side of the brain, were capable of completely restoring the lost functions.

In answer to Mr. Horsley and Dr. Broadbent, Dr. Sharkey amplified the details given in his paper (which was read in very brief extract, owing to the lateness of the hour), and stated exactly the parts of the brain which were affected, and defended the conclusions at which he had arrived.

On Albuminuria with Parametritis.

Dr. Matthews Duncan contributed a paper on the above subject, in which he proposed to show the frequent association of parametric phlegmon and abscess with albuminuria, pointing out the absence of this complication in perimetric inflammation and abscess, and in other inflammations and abscesses.

Dr. Champneys said that all those who practised midwifery would feel indebted to the author of this paper for the valuable information it contained, much of which was new. The occurrence of albuminuria, under the circumstances named, would in future cause them less anxiety than it had done in the past.

On the Weight of the Thyroid Body in 84 persons dying from various causes.

Dr. Stephen Mackenzie read a short paper on this subject. The age, sex, and cause of death were given in each case. The author did not attempt to draw any conclusions. He contented himself with a record of facts, thinking they might be useful in connection with myxœdema, which was now occupying considerable attention.

The Society then adjourned until next October.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MAY 5TH, 1884.

Mr. J. S. TURNER, M.R.C.S., L.D.S., President, in the Chair.

MR. STORER BENNETT showed, for Mr. Balkwill, of Plymouth, the skull of an English black rat, which illustrated in a very remarkable manner the serious results which might happen to rodent animals from the continuous growth of their characteristic teeth, when from any cause their normal antagonism was lost. In this case the two lower incisors had been deflected to the left, and the two upper to the right, so that they did not meet in the usual way. The right upper tooth had described one complete circle and three-fourths of another, and being well inclined outwards, it had not met with any obstacle. The right lower tooth had penetrated the upper jaw and the parts above, and its point projected a quarter of an inch above the highest part of the skull. The left upper tooth, after describing a complete circle, had encountered the front of the upper jaw, which it had penetrated to the depth of one-third of an inch. The left lower tooth had been broken off. The lower jaw was thus quite fixed, and the animal could only have obtained nourishment by suction.

Mr. E. G. BETTS stated that he had found ethylate of sodium very useful for obtunding the pain of sensitive dentine. Before applying it, the dentine should be carefully dried, and the application could be repeated at intervals as the sensibility returned. As it was used by the medical profession for destroying cutaneous nævi, he thought it might be useful for destroying the tooth pulp, but in this respect it had not answered his expectations.

Mr. J. H. MUMMERY read notes of a case of extensive alveolar abscess of obscure origin. The patient, a strong healthy looking young man from Natal, had suffered for more than a year from constant purulent discharge from an opening below the angle of the jaw on the right side, which was a source of great annoyance to him. He had consulted several surgeons, one of whom sent him to Mr. Mummery, with a request that he would remove the necrosed roots of the right lower first molar. This was done, but it did not affect the abscess. Six months later the patient returned in the same condition, and now consented to a further careful examination of the teeth. The second molar had a small cement filling in the crown, but was firm and not tender on percussion; the third molar also appeared quite healthy, but on drilling into the former, pus escaped. The tooth was at once extracted and the sinus healed within a week. The patient stated that the tooth had cost him between 400*l.* and 500*l.* in travelling expenses and surgical fees.

Mr. BETTS then read a paper entitled "Observations on the Teeth of certain Rodents," in which he disproved the statement first made by Professor Helgendorff, and since copied into other works, that the incisors of the Leporidæ had a complete investment of enamel, and showed that the thin transparent layer at the back of the incisors of hares and rabbits was really continued from the cementum and could clearly be demonstrated not to be enamel. This, although apparently a small matter, was of more importance than appeared at first sight, since the supposed fact had been held to show that the Leporidæ were in this respect a missing link between the Rodents and the other Mammalia, whilst in reality the exact relations of this large class to the rest of the Animal Kingdom must still be considered an open problem.

The results of Mr. Betts' observations were confirmed by Messrs. A. Underwood and Chas. Tomes. The latter also remarked on the obscure zoological relations of the Rodent class, and suggested that some of the missing links might possibly yet be supplied by a careful study of the Marsupials.

NORTH-EASTERN HOSPITAL FOR CHILDREN. — At the annual meeting, held on the 13th instant, it was reported that the yearly expenditure had exceeded the receipts by nearly 1,000*l.*

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE VI.

FOOD.

Malt Extracts—Infants' Foods.

Malt Extracts.

THE separation of certain principles from plants and animals which have properties identical with, or analogous to, those of the secretions of the salivary, gastric and pancreatic secretions, has laid the foundation of a large and growing industry.

Pepsin, ingluvin, papaine, are prescribed by physicians, but have scarcely, as yet, become truly popular; on the other hand, malt extract has, so to speak, acquired a hold upon the taste of a beer-drinking nation, and is bought largely with and without medical sanction.

Malt extract is not only an extremely digestible carbohydrate food, but when successfully manufactured, the diastase has very considerable power, both in converting starch into sugar, and also in emulsifying certain fats. During the last two years the writer has been in the habit of examining from time to time all the well known extracts of commerce. The experience thus obtained has shown that, so far as active diastatic properties are concerned, a great many are absolutely inert, while even in the best there is considerable variation. It is impossible, from the appearance or taste of a malt extract, to form any idea of its diastatic power; actual testing is necessary. The writer uses a very simple process. An indeterminate quantity of the sticky extract is carefully weighed and dissolved, so as to equal exactly five per cent.; every 20 c. c., therefore, is equivalent to one gramme; a one per cent. decoction of *potato starch* is made by boiling ten grammes of the starch to as perfect a solution as possible, and after cooling making it up to a litre. 100 c. c. of the starch solution, and 20 c. c. of the extract solution are then placed in an incubator, set at 98·8° F., in separate beakers, for a quarter of an hour, and when they are thus brought to that temperature, the solutions are mixed, and allowed to react; at the expiration of every minute a drop is spotted on to a white plate, and tested with iodine. The blue colour will disappear within ten minutes if the extract is very active. An extract that, tested in this way, gives a blue colour at the end of 25 minutes is, as far as diastatic power goes, useless.

Of the some eight or nine samples of extracts exhibited at the Exhibition, five have been received, and may be briefly noticed.

M. Hoff's Extract of Malt is a liquid of the appearance and consistence of stout; it is surcharged with carbon-dioxide, and the taste is rather agreeable. It contains 13 per cent. of solid residue, which has all the appearance of malt extract; the ash is two per cent.

Fifty c. c. of the liquid freed by agitation from carbon-dioxide, were digested for twelve hours in the incubator with 100 c. c. of the potato starch solution, but at the end of that time it still gave a strong blue with iodine; hence the diastatic power of the extract is practically nil. At the same time it is a pleasant, nutritious drink, and may be used in those cases where the feeding, and not the alcoholic, properties of stout are thought necessary.

Squire's Super-diastatic Malt Extract.—Messrs. Squire, we believe, have only recently manufactured malt extract. It will be remembered that the firm, last year, at Knightsbridge, successfully competed against their older rivals, and obtained the only medal awarded at the smaller and less pretentious Health Exhibition. It was, therefore, thought well to examine their present exhibit closely, so that if the excellence of the first attempt were maintained, the composition of their extract might serve usefully as a standard of comparison.

The extract is of a fine pale colour, and extremely stiff, so that it is with considerable difficulty poured out of the bottle. It contains 18·3 per cent. of water, 2·3 per cent. of ash, 3·4 per cent. of maltose, and ·64 per cent of nitrogen.

In the incubator, one part of the extract wholly converted one part of potato starch within ten minutes. It is therefore an active extract.

Hordeum (Loeflund & Co.).—In consistence and colour this extract almost precisely resembles Squire's malt extract; the amount of water, maltose, and nitrogen, is also the same.

In the incubator, one part of malt extract digested one part of potato starch in 20 minutes; the extract has, therefore, diastatic powers.

Maltine.—This is very different in appearance from either Hordeum or Squire's preparation, for it is so fluid that it may be readily poured out. This fluidity is certainly very convenient, for the manipulation of the more inspissated products, on account of their glutinous nature, is difficult; on the other hand, the more fluid an extract, the less likely it is to preserve the diastase unchanged; slow saponifications go on, and the nitrogenous molecule splits up. Maltine contains 28 per cent. of water, and 2 per cent. of ash. One part of the maltine digested one of potato starch within 15 minutes; it is therefore of good diastatic activity.

Kepler Extract of Malt.—A sample of this extract, exhibited by Messrs. Burroughs and Wellcome, was of a fine pale colour, and in consistence intermediate between the stiff extract made by Messrs. Squire, and the very fluid "maltine." It was found to be diastatically active, one part of the extract digesting one of potato starch in 13 minutes.

Infants' Foods.

There is only one exact way, free from error, by which to judge of the different merits of the various infants' foods, and that is, for some impartial observer, in no way connected with the manufacture of the foods, to feed a number of children of different ages with known quantities, and tabulate the gain or loss of weight, state of health, &c. Some of the foods advertised and largely sold are so opposite in character and principle, that it is impossible for both classes to be equal in value.

The exhibits of Infants' Foods mainly fall under the following heads:—

(1) Milk Foods.
(2) Malted Farinaceous Foods.
(3) Soluble Carbohydrates.

1. *Milk Foods.*—Under this division fall all condensed milks and such products as Nestlé's Milk Powder, which consists of a union of milk with farinaceous substances, or Squire's Milk Powder, which consists of pure milk evaporated to dryness in a vacuum pan, and then powdered. It is perhaps not generally known that however low a temperature is used in evaporating milk, it is yet impossible to dissolve up the dry residue so as to form a liquid in the same physical state as the original milk. The residue when heated with water is only partly soluble; the milk sugar dissolves, the albumen dissolves, but part of the casein remains insoluble and the milk fat is not disseminated throughout the liquid in the same way as is the case with fresh milk. Hence attempts to simply preserve a concentrated, not a dessicated, milk have their *raison d'être.* A tin of condensed milk derived from the Swiss Dairy Company (Uttwyl), is a good example of this method of preservation. The milk is perfectly fluid, and is simply the sterilised and concentrated milk; every 100 parts by weight we find to contain 35·8 of milk solids; so that 100 parts are equal to 297 of ordinary good milk (which should contain 12 per cent. of solids). The label on the tin states that anyone who wishes to "obtain a rich creamy milk is to add three parts of warm or cold water to one part of the condensed milk." If these directions are followed, instead of "a rich creamy" milk the consumer will get a fluid equal to the thin poor stuff retailed by unscrupulous London milkmen on Sundays, when they have little fear of the food inspector. The directions should be for one part of the milk to be made into three by the addition of water.

2. *Malted Farinaceous Foods.*—These foods are all compounded of flour, previously baked or not, and malt or malt extract. When treated with warm water the diastase of the malt is supposed to act on the other starches and render them more assimilable.

Some idea of the relative diastatic value of the foods may be obtained by allowing a known weight of flour to be acted upon by water in the cold for a given time, and the matters extracted in this way estimated, while a second experiment is made on the same lines, but the food is in this experiment placed in the incubator. The difference of the weights of matter extracted in the cold and in the warm have a direct relation to the diastatic activity of the food.

Messrs. Squire have brought out an infants' food, which is a fair representative of the type under consideration. The chemical examination of this food gives the following results:—

	Per cent.
Water	6·50
Fat	1·45
Nitrogen, soluble in cold water ·45 Nitrogen, insoluble in cold water ·61	1·06
Amount of substances soluble in cold water (of which 1·87 is sugar).. ..	18·04
Amount of substances soluble in water by digesting for three hours in an incubator at 98·8 F.	37·76
Ash..	1·07

The constituents which have not been directly determined in the above analysis are mainly starch and cellulose.

On mixing the food with water a very pleasant malt-like odour is evolved; the incorporation of the constituents is evidently very complete, and the food appears to be precisely as represented in the statement printed on each package.

The infants' food so largely sold by Messrs. Savory and Moore appears to be very similar to that of Messrs. Squire. A sample gave us 5·10 per cent. of water, 1·52 per cent. of fat, cold extract 5·90 per cent., digested extract 25·20 per cent., ash 1 per cent.

Mr. Ekin also shows an infants' food, made, so far as we can see, on precisely similar lines. The food contains water, 5·4 per cent.; total nitrogen, ·67 per cent.; cold extract, 8 per cent.; digested extract, 23·0 per cent.; ash, 1 per cent.

We think it would not be right to express any opinion as to the relative merits of these three foods. Although the quoted analyses show that there are minor differences, our knowledge is not yet precise enough to say whether it is better for "infants'" food to have a high diastatic power or a low one.

3. *Soluble Carbohydrates.*—In Mellin's food for infants there is quite a new departure, for it contains no starch at all; everything has been digested. The manufacturer evidently considers that the infant's digestive organs should remain idle while his maltose and dextrin dialyse into the circulation. The food is practically dextrin, maltose, diastase, and a little phosphate.

We question very much whether it is good to feed an infant wholly on liquid nourishment. In the most natural of all diets for our very young, human milk, it is well known that the acid in the stomach almost immediately precipitates the casein, and judging from analogy, food containing solid particles is far more likely to afford the necessary stimulus to digestion than a bland, neutral liquid. We should, therefore, always advise that Mellin's food be given as an addition to a milk dietary, rather than as the sole article of nourishment. But, as before stated, the only way to form a correct judgment on the various foods is by experiment on infants themselves.

CONFERENCE ON THE SPREAD OF INFECTIOUS DISEASES.

THURSDAY, JUNE 12th, 1884.

Dr. ALFRED CARPENTER in the Chair.

[Abstract.]

DR. W. N. THURSFIELD read a paper on the spread of infectious and epidemic disease by means of milk, a somewhat abridged version of which appears in another column.

Dr. W. H. CORFIELD, Medical Officer of Health for St. George's, Hanover Square, next read a paper with regard to the manner in which infectious diseases were spread. We

were able, he said, to prevent the spread of infectious diseases exactly in proportion to our knowledge of the ways in which they were spread. It has been shown by Chauveau and others, from examination of liquids containing poisons of some of these diseases, that the poison exists in the form of solid particles, and is not in solution in the liquids; and other phenomena attending these diseases, especially the non-diffusibility of the poisons as shown by the limited extent of the infecting area around an infected person, leads us to the same conclusion. These poisons, then, are "particulate;" they are also, without doubt, organized substances, and many of the phenomena that they exhibit induce us to believe that most, if not all, of them are organized, that they are, in fact, living things, capable of growth and reproduction. The atmosphere was a most universal medium or vehicle of communication for the poisons of these diseases, though the poisons of some of these diseases were much more readily conveyed directly by the air than were the poisons of others, and, indeed, some of them produced an evident and characteristic smell in the air around the patient. The smell of small-pox had been long known, and no doubt was referred to by the great Arabian physician, Rhazes, who, in his first chapter, entitled "Of the Cause of the Small-pox, and how it comes to pass that hardly anyone escapes the Disease," told us that it was chiefly prevalent "in pestilential, putrid, and malignant constitutions of the air." The poisons of some of these diseases were more especially conveyed in the foul air of sewers and drains. This was the case with enteric or typhoid fever, the poison of which was chiefly, if not entirely, discharged from the body by means of the intestinal canal, and with diphtheria. Among other *media* or vehicles of infection he mentioned the clothing of persons not themselves suffering from the disease, the agency of laundries, public conveyances, wall papers, letters, food, and drinking water (especially in the cases of cholera, enteric or typhoid fever, with dysentery in hot climates) contaminated by sewer air getting into cisterns from overflow or waste-pipes connected with soil-pipes or drains. Diphtheria had not been usually recognised as a disease conveyed by means of drinking water, but some interesting examples brought by Dr. Browning before the Society of the Medical Officers of Health, made it very evident that, occasionally at any rate, this disease was spread in the manner in question. There could, however, be no doubt, that while enteric fever was generally contracted by means of polluted water and occasionally by means of polluted air, diphtheria was generally contracted by means of polluted air and only occasionally by means of polluted drinking water.

In the course of the discussion on the papers, Professor De Chaumont expressed regret at the nihilist attitude which had been taken up by medical men connected with the sanitary department of the Government in India respecting the origin of cholera. Without accepting as proven the results of the investigations of Koch, he said that the loss of this discovery to the British nation was due very largely to the obstruction put in the way of investigation by that department.

Dr. Fleming, speaking of the extent to which the flesh of animals that had suffered from tuberculosis or phthisis was sold in our markets, said the condition of our slaughter-houses was a disgrace to civilisation. Both slaughter-houses and dairies, &c., should be under constant and efficient inspection.

Dr. Priestly urged the importance of more care on the part of heads of families after the occurrence of scarlet-fever and measles in their families. A more conscientious regard for others should be made a matter of education in public morality.

Mr. J. Cleland Burns said that when the community had once been convinced that the rates and taxes would be lowered by looking after the health of the population, sanitation would be properly carried out.

The Duke of Buckingham expressed his hope that these conferences would be fruitful of good by awakening public interest in matters so essential to the well-being of the community as those under discussion.

The Chairman made some suggestive remarks with regard to the hybridising of disease germs and the production under conditions favourable to the development of the hybrids of new forms of disease. With regard to the spread of epizootic diseases, he read an Order of the Privy Council just circulated, which gave powers to prevent the danger of the carrying of infection by drovers and others having to do with cattle. One beneficial effect which might be gained from these regulations would be the better understanding on the part of the people of the conditions under which disease was spread, and of the precautions necessary to prevent the dissemination of infectious diseases.

The proceedings closed with a vote of thanks to the chairman, moved by Professor De Chaumont.

CONFERENCE ON THE NOTIFICATION OF INFECTIOUS DISEASES.[1]

Friday, June 13th.

The Earl Fortescue in the Chair.

LIVERPOOL MEDICAL INSTITUTION

The Chairman said, that in the promotion of sanitary reform affecting the widespread work of sanitation, it must be inevitable that individual liberty and the rights of property must to a certain extent be interfered with for the public good. He should listen attentively to the arguments for and against a novel, but by no means unprecedented, extension of that interference in the shape of compulsory notification of the existence of infectious diseases. It was for the advocates of any compulsory interference with individual liberty, or with the rights of property, to justify exceptional legislation for that purpose. Liberty itself was so very precious a possession, that it ought not lightly to be curtailed. The confidence in the security of property was so indispensable to the development of self-denying thrift and industry, and retention of capital, that it ought not to be lightly shaken or alarmed. It was better to tolerate a certain amount of inconvenience, of evil, and even of suffering, than to interfere by legislation with liberty and property. Capital was really the wage-fund, and it was liable to be scared away on the slightest cause of alarm. Too constant official interference tended to the enervation of the national character, and to render men helpless and unfit for liberty, after they had been too long looked after and done for, and unfitted them for the duties and responsibilities of freemen. Moreover, the evil of enlisting general sympathy against the law by any prematurely stringent enactment and enforcement of regulations, tended to diminish the sympathy for, and support of, law generally; it caused the law to be looked at not as a general friend and protector, as it had long been in England, but rather as an unpopular king. Multiplied official interference required multiplied officials, and multiplied offices to be filled were apt to be accompanied by even disproportionately large numbers of office-seekers, and though competitive examination tended to diminish the number, and to eliminate those intellectually least qualified, yet the training for those examinations was a preparation rather for the work of verification or distribution than of production. In these days of slackness of business and want of prosperity in commerce, he should dread anything which tended to augment the body of distributors of a diminished produce, and of unofficial verifiers of a diminished number of transactions. In spite of the judicious establishment of competitive examinations, a very large proportion of official patronage would inevitably fall into official hands, and much of it was likely to be given away for political purposes. In conclusion he suggested that speakers should confine themselves to the following points:—(1) What success had attended the system in regard to the proportion of cases notified to the total number of cases. (2) What success in stamping out diseases it had led to. (3) What amount of hospital accommodation the sanitary authorities of the place had provided for infectious diseases, and to what extent it had been made use of.

[1] Held under the auspices of the Society of Medical Officers of Health, the Sanitary Institute of Great Britain, and the Parkes Museum of Hygiene.

Dr. Alfred Hill, Medical Officer of Health for Birmingham, read a paper on "The Notification of Infectious Diseases: its importance and difficulties." In order, he said, to prevent the spread of disease, and the possibility of one or two cases developing into a widespread and fatal epidemic, a knowledge of the existence of first cases was indispensable. There was only one way of obtaining such knowledge, and that was by means of notification, the making it known to the proper person or authority. The experiment of voluntary notification tried in Birmingham failed. Of the 300 practitioners in the town only 118 had ever voluntarily notified. Notification, to be of real value, must not be optional but imperative; it must not be subordinated to individual interest or caprice, because it was then too uncertain, too impartial, and frequently too late. It was a remarkable fact that out of 38 towns in Great Britain which had availed themselves of compulsory notification, 34 had adopted the system of direct notification by the medical attendant, while 30 of these required notification also by the occupier; in three of them only did it rest with the medical man to notify indirectly or to the occupier, so that the dual system was found to be by far the most in favour. The relation between notification and cost of hospital accommodation, without regard to other considerations, seemed to him a matter of the greatest importance, and the fact should not be lost sight of that the main value of a hospital for infectious diseases was to treat first cases and prevent epidemics, and not to treat thousands of cases which might, with proper care, have been prevented.

Dr. Alfred Carpenter, in a paper entitled "The Right of the State to Enforce Notification, and the best method of doing it," gave a succinct account of the growth of opinion with regard to this question among medical men and sanitarians. If towns, he remarked, having the compulsory clauses in operation were not able to show better things than could be shown in those places in which only a moral obligation to disclose existed, he thought it must be evident to those who wished to prevent us trusting too much to a paternal Government that we had better steer clear of too much compulsion, and trust a little more to moral obligations. It was found by experience that as good results had been obtained in districts in which notification was voluntary as in those places in which it was compulsory; indeed, the incidence of infective disease was higher in Huddersfield, in Bolton, in Edinburgh, and in Greenock than in a number of places in which there was no compulsion upon medical men, showing at once that compulsion had not extinguished the diseases which were proposed to be stamped out by it. He would rather that the neglect to perform a moral duty should be dealt with by the medical licensing authorities or by the Medical Council than that it should be made a penal matter, to be dealt with in a court of summary jurisdiction by those who would not always be able to see the motive for the prosecution or the medical bearing of the case, and the possible differences of opinion which would sometimes arise, and which would be best dealt with by men of high standing in the medical profession.

Mr. W. Blyth thought those who wished for compulsory notification had to make out a very strong case before it could be obtained. He believed that a case had been made out for some alteration, though he could not go so far as the readers of the papers. Some medical gentlemen imagined that compulsory notification would altogether stamp out infectious disease, but this was a fallacy, as many persons were every day walking about the streets, suffering from scarlet fever, who did not even know they were suffering from the disease.

Dr. Carter (Liverpool) did not believe that the private Acts now in force would work without serious modification, and that they did not control the spread of infectious disease more than it was controlled in other towns without such Acts. In support of this view he quoted statistics, to show that in towns where the Act was in force the death-rate had not been in the slightest degree reduced.

Dr. Armstrong (Medical Officer of Health of Newcastle-on-Tyne) maintained that since the Act had been in force in Newcastle, great improvement in the health of the inhabitants had taken place.

Mr. Wm. Young (Secretary to the Society for the Compulsory Abolition of Vaccination) objected to compulsory notification, and suggested, that as zymotic diseases were being stamped out by the present sanitary arrangement, things should be tried a little longer before legislation was attempted. He believed the bogey of infection had been raised up to serve some purpose.

Dr. Mahomed thought the system of notification and isolation would not answer; for, in the case of measles, the most infectious period was during the first four days, when the disease could not be diagnosed. Typhus had been almost banished by improved sanitary arrangements, and with regard to small-pox, that could be prevented by vaccination. Isolation might do good in the case of scarlet fever, if every case could be dealt with, but many persons had it without knowing it.

Dr. Dudfield having spoken in favour of the notification of infectious disease, and referred to the good effects of the system as carried out in Kensington,

Mr. Jas. Bailey (Secretary to the Vigilance Association) urged that a good case must be made out before such a measure was attempted to be forced on the poorer classes, for he did not think sanitary officers would attempt to meddle with the rich. He agreed with Dr. Carter that the laws which were in force in certain towns, compelling compulsory notification, had not resulted in any marked diminution of disease.

Dr. N. Hardy, as a medical man, objected to the principle of compulsory notification, and referred to the great plague of London, when compulsory notification was necessary, as an instance that it would not stamp out disease.

Professor Corfield said it was absurd to say that the notification of epidemic diseases did not prevent the spread of disease. In such cases as measles, schools could be closed directly the disease was known to exist; and only recently this disease was checked in St. George's, Hanover Square, in this way. He objected to the liberty of the subject to spread infectious diseases.

Dr. Charles West testified to the immense advantage of notification, but did not go into the question of compulsion. He had seen the evil arising from concealment in a health resort in the South of France, and the diminution of contagious disease where notification was practised.

Dr. Taaffe (Brighton) said he could have prevented the spread of typhoid fever amongst 26 out of 91 families supplied from one milk shop, if the first case, which arose from contaminated milk, had been notified to him. He was in favour of compulsion.

The Chairman, in summing up the discussion, said, it seemed to him that a case had been made out for compulsory notification of disease, but after the difference of opinion which appeared to exist amongst the medical profession, he did not think a case had been made for compelling medical men to notify cases which came under their notice, but that the responsibility should lie on the householder. As an old sanitary reformer, he could not conceal from himself that the fullest notification did not always prevent the spread of zymotic disease, whilst in other cases, where good conditions and cleanliness prevailed, such diseases did not spread.

Professor Corfield moved a vote of thanks to the chairman, which terminated the proceedings.

GENERAL CORRESPONDENCE.

HYDRO- AND PYO-SALPINX.

[To the Editor of the Medical Times.]

Sir,—Mr. Lawson Tait is mistaken in supposing that I mix up two classes of cases, namely those which he says rupture and cause a general peritonitis, proving fatal, and those which he asserts wander about unrelieved from hospital to hospital. On the contrary, ever since Mr. Tait's statement last November, at the Obstetrical Society, that

several of the cases he had operated on had been under treatment previously at Guy's Hospital, I have been sharply on the look-out for both classes of case. Hitherto I have not yet come across a single fatal case. I have come across two cases which I believe to be distended Fallopian tubes. One was the case I referred to in my letter, which got well without using the knife, and the other is now attending in the out-patient department at Guy's under my care.

Mr. Tait says he is never sure of his diagnosis until he has the diseased appendages outside. Then, has Mr. Tait operated in some cases and found on getting the appendages outside that they were not diseased at all? If not, if Mr. Tait has operated in sixty or seventy cases, and in every instance has found the appendages diseased, does not this show that he at least has hitherto been able to diagnose these cases with absolute certainty? If so, does Mr. Tait claim a monopoly in the ability to diagnose them? I said I had cured a case under my own care, and Mr. Tait doubts the diagnosis. Fortunately, I had the advantage of the opinion of my colleague, Dr. Galabin, who kindly saw the case with me two or three times, and who quite agreed with me in the diagnosis of the case.

Mr. Tait, without having seen a single case now attending at Guy's, has "not the slightest doubt but that there are fifteen or twenty such cases attending the out-patient department of Guy's Hospital," under my care, "at the present time." I myself, after having examined the cases, am of opinion that there is only one such case, the one referred to above, and she is getting better without using the knife, although it is more tedious than it would otherwise be, because she cannot at present obtain the necessary rest.

Finally, allow me to point out that when I asked Mr. Tait for the names of those patients on whom he had operated, and who, he said, had previously been under treatment at Guy's, it was no answer whatever to give me the three aliases of a woman who, he states, was in hospital at Woolwich, and at the Samaritan and Soho hospitals, and *he thinks* at Guy's, and who had also been under the care of this, that, and the other practitioner. It is enough for me that she has never been in Guy's, so far as I can find out.

Thus far, therefore, Mr. Tait's statement about some of his cases having been under treatment at Guy's remains unsubstantiated.

I am, Sir, yours, &c.

St. Thomas's Street, S.E., June 16th, 1884. P. HORROCKS.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

[To the Editor of the Medical Times.]

SIR,—Permit me to state that at the meeting of Fellows, held on Thursday, the 12th inst., Mr. John H. Morgan, 68, Grosvenor Street, and Mr. Bruce-Clarke, 46, Harley Street, were appointed Joint-Secretaries. All communications with regard to the Association of Fellows should for the future be addressed to them.

Yours faithfully,

Plymouth, June 14. PAUL SWAIN, F.R.C.S.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on the 12th instant the following degrees were conferred.

Doctors of Medicine:—

D. Macalister, St. John's; G. Parker, St. John's; G. N. Pitt, Clare; R. S. Taylor, Pembroke; R. M. Wolfenden, Christ's; C. Y. Biss, Downing.

Bachelors of Medicine:—

G. H. Bolton, Trinity; W. Pash, Pembroke; W. W. E. Fletcher, Caius; G. B. Hoffmeister, Caius; S. Jones-Bateman, Caius; J. Scott, Caius; G. F. Welsford, Caius; J. F. S. Whittingdale, Caius; H. W. Pigeon, Christ's; H. Groom, Magdalene; W. Groom, Magdalene; F. H. Wigmore, Magdalene; H. W. M'Kenzie, Emmanuel; J. H. H. Manley, Emmanuel.

Bachelors of Arts:—

H. J. Davies, Trinity; P. L. C. F. Renouf, Trinity; W. P. Graham, Caius; S. Palmer, Trinity Hall.

Bachelors in Surgery:—

G. D. Bolton, Trinity; G. N. Pitt, Clare; E. Jones-Bateman, Caius; H. W. Pigeon, Christ's; J. H. H. Manley, Emmanuel.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 12th, 1884:—

Stephen Lawson Deeble, 6, Crescent, Mornington Road, N.W. Alfred Samuel Gubb, 52, Newman Street, W.; Ralph Hodgson, St. Bartholomew's College; William Edward Gillson Jackson, 13, Addington Street, S.E.; Ithel Penderel Llewelyn, 26, Brunswick Square, W.C.; William Edward Newey, Parade House, Dudley; Harry Tuck, Brighton Road, Surbiton; William George Weaver, 10A, Great Smith Street, S.W.; James Balls Woolby, 18, Woburn Place, W.C.

The following gentleman also on the same day passed the primary professional examination:—

Evan Jones, London Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 9th, 10th, 11th, and 12th, the following candidates were successful:—For the *Licence to Practise Medicine*—

Charles Robert Battersby, Blackrock, Co. Dublin; James Joseph Bolger, Dublin; Frederic Brentnall, Stockport; Charles Edward Fitzgerald, M.D. Univ. Dub., Dublin; Diego Gannon, Dublin; John King Irwin, Dublin; John Bently Mann, Manchester; Francis Bernard Manning, Ballyhaise, Co. Cavan; William Cox Neville, M.D. Univ. Dub., Dublin; Andrew Joseph O'Flanagan, Waterford; John Patrick O'Riordan, Bruff, Co. Limerick; John Clarke Soady, Dublin; Edward Churchill Stack, Monaghan.

For the *Licence to Practise Midwifery*—

Charles Robert Battersby, James Joseph Bolger, Frederic Brentnall; William Walter Fenton, M.B. Univ. Dub., Dublin; Diego Gannon; James Sullivan Green, M.B. Univ. Dub., Dublin; John King Irwin; James Lennox, M.D., R.U.I.; Francis Bernard Manning, William Cox Neville, M.D. Univ. Dub.; Andrew Joseph O'Flanagan, John Patrick O'Riordan, Edward Churchill Stack.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College:—

John Molony, *Lic. Med.* 1874, Collooney, Co. Sligo; Lambert H. Ormsby, *Lic. Med.* 1869, 92, Merrion Square, W., Dublin.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Her Royal Highness Princess Louise, Marchioness of Lorne, has promised to distribute the prizes to the students, and to open the new wing of the Hospital, containing 70 additional beds, on Wednesday, July 2nd.

NAVAL MEDICAL SERVICE.—Deputy Inspector-General of Hospitals and Fleets G. Mason, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

INDIAN MEDICAL SERVICE.—The Queen has approved of the admission of the undermentioned Surgeons:—J. J. Pratt, R. Shore, M.D., Bengal; W. B. Bannerman, H. Thomson, Madras; C. J. Sarkies, Bombay. The Queen has approved of the retirement from Her Majesty's Indian Military Forces of the undermentioned Officers:—Deputy Surgeon-General R. H. Perkins, of the Bengal Army; Surgeon-Major F. W. A. De Fabeck, of the Bengal Army; Surgeon-Major T. Holmested, of the Bombay Army.

UNIVERSITY OF CAMBRIDGE.—The following examiners have been appointed:—Dr. O. Sturges, Emmanuel; Dr. N. Moore, St. Catherine's; and J. M. Duncan, M.D. (Aberdeen), for the third M.B. examination during the ensuing year. J. N. C. Davies-Colley, and C. Heath, F.R.C.S., in surgery during the ensuing year, F. S. B. F. de Chaumont, M.D. (Edinburgh), W. H. Corfield, M.D. (Oxon), A. Carpenter, M.D. (London), and Dr. H. Airy, Trinity, in state medicine for the ensuing academical year.

BUBONIC PLAGUE NEAR BAGDAD.—The *North German Gazette* publishes intelligence from Teheran, dated 26th ultimo, stating that according to reliable reports received there an epidemic had broken out on the right bank of the

Tigris, near Bagdad, which quickly proved fatal to those attacked. The disease was supposed at Teheran to be bubonic plague, but its existence had long been kept secret by the Turkish authorities. In consequence of the outbreak the Persian Government had forbidden the departure of pilgrims for Kerbela, and had established a sanitary cordon on the frontier. It was also reported that Turkey had now given orders for the imposition of quarantine.

Office of City Coroner.—At a meeting of the Court of Common Council, held at Guildhall on Thursday week, the Court proceeded to the election of Coroner for the City of London and the borough of Southwark, rendered vacant by the death of Mr. W. J. Payne. There were twelve candidates, viz.: Mr. W. Adam Burn, Dr. A. Chune Fletcher, Mr. B. E. Greenfield, Dr. T. S. Horsford, Mr. S. F. Langham (Deputy Coroner for the City and Coroner for the Duchy of Lancaster), Mr. H. B. Mugliston, Mr. G. F. Roumieux (Coroner for West Surrey), Dr. A. B. Thompson, Dr. J. C. Torry, Dr. Wynn-Westcott (Deputy Coroner for Central Middlesex), Mr. G. P. Wyatt (Coroner for Surrey), and Dr. G. E. Yarrow. The candidates were first reduced to two—Dr. Horsford and Mr. Langham—by show of hands, and then a poll of the members was taken. For Mr. Langham 95 votes were recorded, and for Dr. Horsford 85, and Mr. Langham was declared duly elected.

Aberdeen Sick Children's Hospital. — From the stimulus given by Princess Beatrice opening a Bazaar last autumn, in aid of its funds, such a sum has been realised which enables the Committee of Management to proceed with alterations and additions. Valuable adjoining property has been acquired and plans have been carefully drawn up for the addition of several wards and the enlargement of the present. A fever ward is to be added, which will be of great service to the community. On the whole the changes made will make it a very comfortable and commodious institution.

Aberdeen Royal Infirmary.—At the adjourned conference held by a special committee with the hospital staff, to enquire into increased hospital expenditure and household management, it was stated that nearly one-half of the patients admitted to the infirmary are not properly certified as in every respect suitable persons for being treated in the institution, and it was resolved that no one in future would be admitted to the benefits of the hospital unless passed as suitable by the superintendent. The question of increased ventilation, deficiency of baths, the granting of a salary to the residents, and a pay ward for private patients, was fully discussed, but no definite line of action was fixed on.

Combe Lying-in Hospital, Dublin.—On Thursday week the Lord Mayor of Dublin inspected this hospital and subsequently presided at the annual meeting, when Dr. S. R. Mason, the master of the hospital, reported that during the past year the resources of the hospital had been taxed to their fullest extent, as the large number of 624 patients were admitted to and treated in the labour wards of the hospital, whilst 158 patients were treated in the wards reserved for the treatment of diseases peculiar to women. This was the largest number of patients that had been admitted into either department of the hospital since its foundation in the year 1826. In the extern maternity 1,818 poor women were attended at their own homes. The attendance at the special dispensary amounted to 2,191, and at the general dispensary to 6,010. The hospital is much in need of funds.

University College Hospital.—A public meeting in aid of the funds of this hospital was held at the Mansion House on Monday, the Lord Mayor, M.P., presiding. A circular issued by the hospital stated that this being the 50th or jubilee year of the existence of the hospital, which was opened for the reception of patients in 1834, the committee were anxious to celebrate the event, not only by clearing off the serious load of debt, over 8,000*l.*, with which their work was at present hampered, but also by raising a large sum for permanent investment as a Jubilee Endowment and Building Fund. The present financial position of the hospital was as follows—Annual necessary cost of maintenance, 19,000*l.*; reliable income from all sources, 6,500*l.*; annual deficiency to be provided for, 12,500*l.* This deficiency during the last few years had only been partially covered by donations and legacies, and the unfortunate result had been the forced sale of stock and the consequent diminution of dividends. A letter was read announcing a bequest to the hospital of 1,000*l.* under the will of the late Dr. Alexander Tweedie. Various resolutions were passed, and in the course of the meeting it was announced that contributions which had been received amounted to nearly 3,000*l.*, and that a gentleman had given 1,000*l.*, the interest of which was to be applied to sending children to convalescent homes. It was also stated that the medical staff had in some instances given up half their fees, and in one case the whole.

Vaccination and Small-pox.—In view of the recrudescence of small-pox in the metropolis, the National Health Society have forwarded to the several metropolitan boards of guardians and sanitary authorities copies of a pamphlet which they have prepared on the subject of vaccination, and which they suggest should be left by the local officials, or by special temporary officers to be appointed, at each house within the several districts. This plan has already been carried out with marked success in certain metropolitan unions, and the general adoption of a similar course would no doubt lead to equally beneficial results. The pamphlet in question has received the honour of revision and amplification by the Local Government Board, who have, moreover, sanctioned in a number of cases the repayment of the expenses of its distribution out of the Metropolitan Common Poor Fund. The pamphlet may now, therefore, be fairly regarded as an official publication on the subject of which it treats. The society suggests that it would tend greatly to encourage vaccination and revaccination if the plain facts on the subject were brought home to every householder by a copy of the pamphlet being left at his door; and it would, moreover, materially assist the vaccination officers in the discharge of their often difficult duties. With the praiseworthy object of assisting as far as possible in the limitation of the epidemic, the society offers to supply copies of the pamphlet, as revised by the Local Government Board, at the cost of printing. In view of the extension of small-pox in the metropolis, it is clearly important that the local authorities should give the widest publicity in their districts to the actual facts on this very important question.

Infanticide in France.—A report has recently been made to the President of the French Republic, in which it appears that in 1882 legal proceedings were taken with respect to 171 cases of infanticide, 19 abortions, and 177 cases of concealment of birth or exposure of infants. The report explains that the proportion of acquittals for each of these crimes amounts to 42, 55, and 61 per cent. respectively. As we may be morally certain that nearly every one of the accused was in reality guilty, the enormous proportion of acquittals must seem inexplicable to those not intimately acquainted with French society. But the search for the proof of parentage is forbidden by the French law, and French juries, knowing that the law gives no protection to betrayed and abandoned women, cannot be made to convict, even when the guilt is patent.

Population of Denmark.—There are but three countries less thinly peopled than Denmark, viz.: Norway, Servia, and Montenegro. At the census of 1880 there were enumerated only 1,980,259 souls, comprising also the Faroes (11,220), Iceland (72,445), Danish India (33,763), and Greenland (about 10,000). The urban population amounts to 516,742 and the rural to 1,463,517. Perhaps 36,210 should be deducted from these last as residing at commercial places, and therefore to be considered as civic inhabitants. The population at the census consisted of 1,007,427 women and 972,832 men, the disproportion seeming to be chiefly due to emigration, which removes three men for every woman. In Copenhagen there were 20,000 more women than men, although at the beginning of the century the men were in the majority.—*Journal de la Société de Statistique*, May.

A French Annual Congress of Surgery.—A corresponding member of the Paris Société de Chirurgie having proposed that an annual congress of French surgeons should be held, the matter was referred to a committee, the report of which Professor Pozzi read at a recent meeting of the Society. This observes that by the side of the German annual congress "which makes such an effort to absorb everything," it is very desirable that a great scientific centre of the surgeons of France and of countries speaking French, should annually assemble. In this way all surgeons speaking the French language will be brought together from Alsace-Lorraine, Switzerland, Belgium, Canada, &c.; while invitations may also be addressed to those of other countries willing to make their communications in French, and such would doubtless be eagerly received in Holland, Sweden, Russia, Poland, Hungary, &c. The only part the Société de Chirurgie intends taking in the matter is to frame the rules and regulations for starting the new congress. M. Desprès was the only objector to this new project and this arose from his belief in the very slight utility derivable from the congresses now existing in such abundance. He strongly advised the Société de Chirurgie to have nothing to do with setting it on foot; but with this exception the Society was unanimously in favour of the scheme.

The Anti-Vivisection Question in America.—In our last number, a statement made by Dr. Weir Mitchell, when proposing a resolution to the Medical Society of the State of Philadelphia against legislative interference with experimental investigations, to the effect that "the Indian Government has sent snake-poison to Philadelphia, and money also, to secure investigations, not being able to have such researches made in England," has been erroneously reported. The facts are thus stated by Dr. Mitchell, in a note to the *Philadelphia Medical News*, May 24th:—"Last year, at my request, Mr. Frelinghuysen, Secretary of State, addressed Her Majesty's Indian Government in regard to our researches on venoms. A sum of money was devoted to aid in collecting the poison of Indian serpents, and orders were issued to certain Army Surgeons in regard to the matter. As a result, we have been able to continue the researches which Lauder Brunton was successfully prosecuting until the Vivisection Act put an end to his work."

APPOINTMENTS.

Awdry, W. R., M.B.—Resident Surgical Officer to the Genera Hospital, Birmingham.

Brown, H. H., M.B.—Visiting Surgeon to the Chester General Infirmary, *vice* F. J. Salter, L.R.C.P., resigned.

Cockell, E. S., M.R.C.S.—Medical Officer to the Hartlepool Friendly Societies' Medical Association, *vice* J. J. Weir, M.B., resigned.

Davies, G. H., L.R.C.S., L.R.C.P.—Honorary Ophthalmic Surgeon to the Blackburn and East Lancashire Infirmary.

Evans, E. R., L.R.C.P., M.R.C.S., L.S.A.—Honorary Surgeon to the Hertford General Infirmary, *vice* Woodhouse, resigned.

Ogle, A., M.R.C.S.—Resident Medical Officer to the St. Marylebone General Dispensary.

Stewart, A., L.R.C.P.—Honorary Surgeon to the Borough Hospital, Birkenhead, *vice* S. Spratley, M.D., resigned.

Stoker, G., M.K.Q.C.P., M.R.C.S.—Surgeon to the Hospital for Diseases of the Throat and Chest, Golden Square.

Thomson, St. Clair, M.B.—Resident Medical Officer to the Queen Charlotte's Lying-in Hospital, *vice* J. B. Woolby, L.R.C.P., resigned.

VACANCIES.

Borough of Gateshead.—Medical Officer of Health. (*For particulars see Advertisement.*)

Boscombe Provident Infirmary, Bournemouth.—Resident Medical Officer. Salary, £60 per annum, with board, &c. Candidates must be duly registered, and unmarried. Private practice prohibited. Applications, with copies of recent testimonials, to be sent to the Honorary Secretary, before June 28th.

County and County of the Borough of Carmarthen Infirmary.—House Surgeon. Salary £100 per annum, with board, lodging, fire and light. Candidates must be registered to practice both in medicine and surgery, unmarried, and free from the care of a family. They must have a knowledge of the Welsh language, and will be required to enter into an agreement not to practice in the County of the Borough of Carmarthen for a period of five years. Applications, with testimonials, as to ability and character, to be sent to Mr. H. Howells, 11, Morley Street, Carmarthen, on or before July 12th.

Leeds Public Dispensary.—Junior Resident Medical Officer. Salary £80 per annum, with board and lodging. Candidates must possess a duly registered qualification. Applications, with testimonials, to be sent to Mr. F. P. Flood, 2, Lodge Street, Leeds, on or before June 23rd.

Liverpool Dispensaries.—Assistant House Surgeon. Salary to commence £108 per annum, with apartments, fire, gas, and attendance. Candidates must be duly qualified. Applications, stating age, with certificates of registration, and testimonials, to be sent to the Secretary, Liverpool Dispensaries Office, 34, Moorfields, Liverpool, not later than June 24th.

Queen's College Birmingham.—Professorship of Anatomy. Salary £262 10*s.* per annum. Applications with testimonials, to be sent to the Secretary, Joseph Lewis, 21, Paradise Street, Birmingham (from whom further particulars can be obtained), on or before June 30th.

St. George's and St. James's Dispensary.—Honorary Physician. Candidates must be either F. or M.R.C.P. Lond., or Graduates in Medicine of one of the Universities of the United Kingdom. Applications, with diplomas and testimonials, to be addressed to the Medical Committee, at the Dispensary, 60, King Street, Golden Square, W., not later than June 25th; and candidates must attend personally at the Dispensary on June 26th, at 4.30 p.m.

West London Hospital, Hammersmith, W.—Assistant Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, and not practising as apothecaries. They are requested to attend a meeting of the Medical Council on July 1st, at 3.30 o'clock p.m. The election will take place on July 7th. Applications and copies of testimonials to be sent to the Secretary not later than June 30th.

York County Hospital.—Assistant House Surgeon. Salary, £50 per annum, with board and residence. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons in the United Kingdom, registered under the Medical Act, and unmarried. Applications, stating age, accompanied by testimonials, to be sent to Secretary's Office, 5, New Street, York, on or before June 21st.

DEATHS.

Branson, C. L. S., M.R.C.S., L.R.C.P., at 30, Tavistock Road, Westbourne Park, on June 16th, in his 37th year.

Brown, J. J. A., M.D., at Grantham House, Grantham, on June 13th, aged 76.

Bush, T. G., M.R.C.S., L.S.A., at Glenbourne, West End, near Southampton, on June 11th, aged 69.

Dixie, W. F., M.D., in London, on June 12th, aged 57.

Goodeve, H. J. H., M.D., F.R.C.P., F.R.C.S., J.P., at Cook's Folly, near Bristol, on June 17th aged 77.

North, John, M.R.C.S., J.P., at 8, Warrington Gardens, Maida Vale, on June 6th, in his 75th year.

Tuck, F. S., M.R.C.S., at 4, Batsford Road, St. John's, New Cross, S.E., on May 24th, aged 35.

West, W. C., M.R.C.P., at Yarnton Lodge, Malvern, on June 15th, aged 73.

NOTES, QUERIES, AND REPLIES.

THE PROPOSED MEDICAL SECTION OF THE POSTAL MICROSCOPICAL SOCIETY.

[TO THE EDITOR OF THE MEDICAL TIMES.]

Sir,—A few weeks ago you very kindly inserted from my President a letter on the above subject, but as I fear that some slight misapprehension was inadvertently conveyed to some of your readers, I beg you will allow me the opportunity of stating briefly the object which I hope to attain by the formation of this new Section, which is this:—The means of furnishing Members of the Medical Profession with such slides as they are naturally most interested in, and such notes in relation thereto as will not only anatomically describe the slides under observation, but will, where practicable, give a full history of the cases from whence they were taken, duration of the disease, the methods of treatment adopted, and every other matter of interest likely to prove of any educational value to all succeeding Members. To accomplish this, it is proposed that every Member shall send to the Hon. Secretary for circulation six slides (or any multiple of six), with full descriptive notes thereon, to be written in the book, or books, provided for that purpose, and each Member receiving the same, will be asked to add all that he can in further elucidation of the various subjects under discussion. Boxes containing twelve slides will be circulated at regular dates, and in such a manner that each Member should receive one at fortnightly intervals. When each set of slides has been seen by all the Members, it will be returned to the original contributors, who will be asked for a fresh supply, and that each series (or set) may circulate for a whole year, it is necessary that at least *Fifty* Members be enrolled. Several have already sent in their names. As the fees for the Medical Section (separately) will be the same as for the General Section, it is thought desirable that the two Sections shall run concurrently; the first year's subscription, therefore, will carry on to the 30th September, 1885, and will after the first year become due on the 1st October in each year. The first session will commence as soon as a sufficient number of slides have been received.

Members of the Medical Section will be at liberty to join the General Section also, on paying *half* annual subscription extra. A copy of the *Journal of Microscopy* is presented to every Member quarterly, as published.

I am, Sir, &c.,

Alfred Allen, Hon. Secretary.

BROMIDE OF POTASSIUM.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—If your readers will always bear the following in mind, they will do much towards conserving *minds:* Bromide of Potassium = *softening of the Brain.*

I am, Sir, &c.,

W. Walnut Lane, Germantown, Philadelphia. GEO. H. CLARK.
June 6th, 1884.

IODIDE OF SODIUM.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Observing that you make mention, as a matter of quite recent interest, of the preference given by Dr. Berg for Iodide of Sodium over Iodide of Potassium, will you allow me to state that in my work, "The Throat and its Diseases," published in 1878, I, at page 110, recommend the Sodium Salt in preference to that of Potassium, for the very reasons quoted by Dr. Berg in your issue of this date.

I am, Sir, &c.,

36, Weymouth Street, Portland Place, W. LENNOX BROWNE.
June 14th, 1884.

COMMUNICATIONS RECEIVED—

Dr. WYNN WESTCOTT, London; THE SECRETARY OF THE APOTHECARIES' SOCIETY, London; THE SECRETARY OF THE INTERNATIONAL HEALTH EXHIBITION, London; Dr. TAAFE, Brighton; Mr. FRANCIS VACHER, Birkenhead; Dr. CLARK, Ongar; THE EDITOR OF THE TUNBRIDGE WELLS ADVERTISER, Tunbridge; THE EDITOR OF THE BRITISH AND COLONIAL DRUGGIST, London; THE SECRETARY OF THE HOSPITALS ASSOCIATION, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Dr. NORRIS WOLFENDEN, London; Dr. J. S. BRISTOWE, London; OUR VIENNA CORRESPONDENT; Prof. CORFIELD, London; Mr. J. WICKHAM BARNES, London; Dr. C. F. TAYLOR, Philadelphia; Mr. BRUCE JOY, London; Dr. LUDWIG LOEWE, Berlin; Dr. W. N. THURSFIELD, Shrewsbury; Dr. LENNOX BROWNE, London; Dr. G. H. CLARK, Philadelphia; Dr. HORROCKS, London; Mr. J. HUTCHINSON, F.R.S., London; OUR BELFAST CORRESPONDENT; Dr. WILLOUGHBY, London; Dr. SHELLY, Hertford; Messrs. MCDOUGALL BROTHERS, London; THE REGISTRAR-GENERAL, Edinburgh; THE SECRETARY OF THE NATIONAL HEALTH SOCIETY, London; THE SECRETARY OF THE SWEDENBORG SOCIETY, London; OUR LIVERPOOL CORRESPONDENT; Dr. PEDLOW, Weymouth; Messrs. DENYER & Co., London; Mr. A. ALLEN, Bath; Mr. JOHN H. MORGAN, London; OUR ABERDEEN CORRESPONDENT; OUR DUBLIN CORRESPONDENT; Dr. TIRARD, London; Dr. WILKS, F.R.S., London; Mr. T. S. HOSFORD, London; THE DIRECTOR OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, London; Mr. R. OAKLEY, London; THE DEAN OF ST. MARY'S HOSPITAL MEDICAL SCHOOL, London; Messrs. WELFORD & SONS, London; Signor RANIERI PINI, London.

BOOKS RECEIVED—

Syphilis and Pseudo-Syphilis, by Alfred Cooper, F.R.C.S. — The Calendar of the Royal University of Ireland for the year 1884.—How to Cure and Prevent Small-Pox, by Charles Rose—Notes on the treatment of Typhoid Fever, by Duncan Turner, L.R.C.P., L.R.C.S.—Hyperemia of the Vesico-Urethral Membrane, by W. H. Baker, M.D.—Ophthalmic Science and Practice, by Henry E. Juler, F.R.C.S.—Glaucoma and its Treatment, by G. L. Johnson—Annual Announcement of Trinity Medical School, Toronto—On Morbid Drowsiness and Somnolence, by C. L. Dana, M.D.—The Extra Pharmacopœia of Unofficial Drugs, by Wm. Martindale, F.C.S., &c.—Diseases of the Heart, &c., by Byrom Bramwell, M.D., F.R.C.P.—Treatise on Consumption, by William Dale, M.D., M.R.C.S.—On Health Assurance, by W. F. Phillips—The Propagation of Disease, &c., by R. P. B. Taaffe, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet — British Medical Journal — Medical Press and Circular—Centralblatt für Chirurgie — Gazette des Hôpitaux — Gazette Médicale — Pharmaceutical Journal — Wiener Medicinische Wochenschrift — Révue Médicale — Gazette Hebdomadaire — Nature—Boston Medical and Surgical Journal—Louisville Medical News — Centralblatt für Gynakologie — Le Concours Médical — Centralblatt für Klinische Medicin—Philadelphia Medical News —Le Progrès Médical — New York Medical Journal — Students' Journal and Hospital Gazette — New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften —Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad — The Archives of Pediatrics — Nordiskt Medicinskt Arkiv—Chemist and Druggist—The Medical World—Révue de Médecine—Révue de Chirurgie—The Journal of the British Dental Association — The Journal of the Vigilance Association — An Ephemeris of Materia Medica, &c.—The Liverpool Courier, June 17 —The Canadian Practitioner.

APPOINTMENTS FOR THE WEEK.

Friday, June 20 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Professor Sir Henry Thompson will deliver his Fifth Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

Saturday, June 21.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, June 23.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m.—Professor Sir Henry Thompson will deliver his Sixth Lecture "On some Important Changes in Connection with the Surgery of the Urinary Organs."

Tuesday, June 24.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND, 8 p.m.—The following Communications will be received:—Prof. Flower, LL.D., F.R.S., President, "On the Size of the Teeth as a Character of Race;" O. A. Shrubsole, Esq., F.G.S., "On Flint Implements found at Reading;" S. M. Curl, Esq., M.D., "Phœnician Intercourse with Polynesia;" M. J. Walhouse, Esq., "A Hindu Prophetess;" J. E. Greenhill, Esq., "Exhibition of Palæolithic Implements recently found in the north-east of London."

Wednesday, June 25.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Thursday, June 26.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

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MEDICAL TIMES
AND GAZETTE.

No. 1774. LONDON, SATURDAY, JUNE 28, 1884.

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WITH TITLE-PAGE AND INDEX.

ON THE METHODS OF DIAGNOSIS.[1]

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THERE is no doubt a tendency on the part of every teacher to over-estimate the importance of that particular department of medical science with which he has to do. But bearing in mind that tendency, I can with confidence affirm that there is no subject which is of more importance to you than that one, the study of which we commence to-day.

In the capacity of general practitioners, that honourable career to which most of you will probably devote your lives, you will have to practise all branches of the profession, but the majority—the great majority—of your patients will be suffering from *medical* diseases. Obviously, therefore, it is of the greatest importance, both for your own success, and also for the welfare of the public, that you should enter into practice with a sound knowledge of *medicine*, and with the confident assurance that you feel yourselves able both to recognise and treat *medical* cases.

But to acquire even a moderate knowledge of the *medicine* of to-day is no trivial undertaking. The subject is of vast extent—it is probably the largest in the whole curriculum—it is ever changing from day to day, and is continually and rapidly increasing. The preliminary difficulties which the student has to overcome in making himself familiar with the mere methods of clinical investigation, are much greater in the case of medicine than in the case of surgery. The surgeon has to deal chiefly with external parts; and is able to employ sight and touch as his most important means of clinical investigation. The physician, on the other hand, is more particularly concerned with the internal organs. He has sometimes to fall back upon more elaborate means of investigation, and has not unfrequently to rely upon hearing as his chief aid to diagnosis and, as you will soon find, it is very much more difficult to train the ear and to teach and learn sounds, than to educate the senses of sight and touch. Add to these circumstances (and there are others which I might have mentioned) the fact, that the portion of the curriculum which is at present devoted to *medicine* (clinical and systematic) is far too short, and I think I have said enough to show you that you have no light task before you. It is essential, therefore, that you should lay down for yourselves a well considered plan of study; and that you should apply yourselves to the work with all that diligence and perseverance which have always characterised the students of this great school, and which are specially characteristic of the Edinburgh

[1] Being an introductory lecture to the Author's Summer Course of Practical Medicine and Medical Diagnosis, in the Extra-Academical School of Medicine, Edinburgh.

student of to-day. And this leads me to speak of the circumstance which induced me to give this course of lectures, and of the kind of instruction which you will derive from it. I well remember the feeling of bewilderment and uncertainty with which I commenced the study of *medicine* (medicine as distinguished from surgery) in the wards of our Royal Infirmary, now a considerable time ago; and although I had the inestimable advantage of attending the *clinique* of one of the most distinguished clinical teachers of that day—I refer to the late Professor Sanders—it was some time before I could fully profit by his instruction. I often thought, at that time, how useful to me a course of medicine, such as I propose to give you during the present session, would have been. On coming back to Edinburgh, I put my student notion into practice, and I am glad to know, from the large number of students who are present here to-day, that the course is appreciated by you. Let me add that no effort on my part shall be wanting to make the lectures a thorough and complete success. It is a serious thing to be a teacher, and as each year comes round, I feel more deeply sensible of my responsibility. The primary object of a teacher of medicine is, of course, to impart sound instruction to his students, to convey to them such knowledge as will be of real use to them in their future career as practitioners of medicine, not forgetting altogether their present needs and the requirements of the Examining Bodies. But while this is his main object, that teacher would, in my opinion, fail in his duty to his profession, and would fall far short of what my ideal of a teacher ought to be, who did not endeavour, both by precept and example, to arouse their enthusiasm, and to send them forth into the world, not only able, but ardently desirous of making original observations, and of adding to the common stock of knowledge. I earnestly hope that *I* may succeed in arousing *your* enthusiasm, that I may number among my class some, at least, who will attain to future distinction, and that all of you may look back upon this course of lectures as not the least profitable and pleasurable part of your curricula.

These lectures will constitute a preliminary Course of Medicine. The instruction I propose to give you will be as practical as possible, and will relate more to the diagnosis than to the treatment of disease.

I shall, in the first place, describe to you the method of investigating and recording medical cases (*case-taking and case-recording*). I will next take up the examination of the various systems and organs in detail. Under this head:

(1) I will briefly recall to your memories the medical anatomy and the physiology of the organ under consideration.

(2) I will describe to you the clinical methods by which we ascertain the condition of that organ; giving you a detailed description of the instruments employed in the investigation of medical cases, their mode of application, and the information to be derived from their use.

(3) I will point out to you the normal physical signs, *i.e.*, the signs appreciable to the senses (unaided and aided) of the physician, which result from the physical condition of the organ in its healthy state.

(4) I will consider the pathological physical signs, *i.e.*, the signs which result from the physical conditions of the organ when diseased.

(5) I will detail to you the more important abnormal sensations or symptoms, which the patient feels as the result of such pathological conditions, taking care to explain, whenever it is possible, the relationship of the symptoms to the lesion, *i.e.*, the manner in which the lesion produces the symptoms.

(6) I will then tell you how the different disorders and lesions are to be distinguished (Diagnosis and Differential Diagnosis). This will constitute a considerable, and an important part of the course.

(7) If time permits, I will indicate the points to which attention is to be directed in forming the prognosis.

(8) And I will enumerate the chief indications for treatment.

A course of lectures of this description would be very incomplete without practical instruction. I shall therefore divide the class into small sections for practical tutorial work; and will in this manner give each of you the opportunity of practising percussion, auscultation, &c., and of applying the different instruments to the living patient.

The kind of knowledge which I shall do my best to communicate to you in this course of lectures is, in my opinion, of the first importance to the student. As I have already said, medicine is a vast subject, and it is quite impossible for any of you to hope to *master* (*i.e.* to get a real, sound, and personal knowledge of) all the details of individual diseases during the brief period of the curriculum. The time has, I think, now come either for extending the period of study—an extra year devoted to the final subjects would be highly advantageous—or if that cannot be done, it would be better, I think, to limit the subjects required for the purposes of examination—more especially some of the preliminary subjects—and to demand a thorough knowledge of the great principles of medicine, and of all the common and important medical affections, rather than an imperfect smattering and cram knowledge of the whole.

While, therefore, I am of opinion that too much detailed knowledge of rare and obscure affections should not be required for the purposes of a pass examination, I think, and think most strongly, that no student should be allowed to enter practice who is not thoroughly versed in the details of clinical investigation and of clinical work, and who is not practically familiar with all the more important instruments, such as the laryngoscope, the ophthalmoscope, the electric battery, &c., which are used in medical research. Unless you acquire this sort of knowledge during your student days, you will probably never acquire it; and unless you possess this knowledge you will not be so well fitted as you otherwise would be to add to the science and progress of medicine. Some of you may perhaps say, but we intend to be general practitioners, and what opportunity shall we have of making original observations. Believe me—and I speak from some years' active experience as a general practitioner—your opportunities will be great. To mention one point only, the general practitioner sees disease from its commencement, he has consequently better opportunities of ascertaining its causation than the hospital physician to whom cases are brought in their later and more developed stages. Hence the general practitioner is much more likely to discover the means by which diseases can be prevented, and I need not tell you that "prevention is better than cure." If you enter into practice with the desire and determination to observe and record clinical facts you will find your work a pleasure, you will treat your patients much more satisfactorily, and you will get reputation and practice more quickly than if you looked upon your profession as a mere business and matter of routine.

Such then is the plan and scope of this course.

Now, the great object of the physician is to cure disease; or if, as unfortunately frequently happens, that be impossible, to relieve suffering and to prolong life. Treatment is therefore the point which we must always keep in view.

In order that our treatment may be rational and scientific, it is necessary in the first place to ascertain exactly, or as exactly as the present state of medical

science will allow, the morbid condition or conditions which are present; in other words, to make a full and exact diagnosis.

A diagnosis is not a mere guess, but is *a logical conclusion based upon the facts of the case.* In making a diagnosis your aim should be not merely to give a name to the disease, but to take into account the special features which it presents in the individual case under observation, to ascertain, if possible, the exact character and extent of the lesion—for it is only after we have got this information that we are in a position to treat the affection satisfactorily and to judge of its probable duration and course.

The mere naming of the disease is, as a rule, an easy matter. Sometimes, however, even that is impossible, owing to the fact that in some cases the grounds for forming an opinion are insufficient (the symptoms and physical signs are imperfectly developed); and that there are probably some diseases whose clinical features are as yet unknown. I can give you no better illustration of the fact that the mere naming of the disease is not a diagnosis, than by referring to the term "heart disease," which is so frequently used both by the laity and also by the profession. Under this name are grouped many different conditions, and many different degrees of the same affection. Some forms of "heart disease" are of the gravest possible significance; others may continue for years, but are apt to terminate in sudden death; others, again (and in this class we meet with cases in which the heart's action may be markedly deranged, and in which the sounds may be replaced by murmurs), are of comparatively trivial importance, some of them having no tendency to cause sudden death or to materially shorten life, and others being readily amenable to treatment. To include all these different conditions under a common term, which to both the lay and to the professional mind is of very serious significance, and to diagnose them all as "heart disease," is obviously highly unscientific and improper. In making a diagnosis in such cases, the physician endeavours to determine whether the cardiac derangement is organic or functional; and if it be organic, what is the exact character and extent of the lesion.

To correctly appreciate the special features of any given case, to gauge the extent and tendencies of the morbid process, is much more difficult, and demands the highest skill of the experienced practitioner. In order to arrive at a correct conclusion on this point, it is necessary to be well acquainted with the characters which the disease usually presents, and to take into account not only the special features which are manifested in the individual case under observation, but also the constitutional peculiarities, and the pathological tendencies of the patient. It is impossible to insist too strongly upon the importance of studying the individual characteristics and peculiarities of each and every patient who comes under observation. Students, whose knowledge of disease must necessarily be in great part gained by listening to systematic lectures and reading systematic text-books, are very apt to ignore the personal element or "personal equation" as it has been fitly termed, and to regard their patients as so many cases of this or that disease (pneumonia, typhoid, mitral regurgitation, for example), rather than as separate individuals, each with his special time and constitutional peculiarities to which, so to speak, the disease is engrafted or superadded. The fallacy of such a mode of looking at disease becomes obvious enough when one gets into practice, and is, to some extent counter-balanced by clinical teaching, but it is necessary to emphasise it. The systematic lecturer and systematic writer must necessarily describe types of disease, rather than individual cases, and in order to be clear and intelligible, he must necessarily draw in his outlines sharply and clearly; a very little practical experience will show you that the hard and fast lines of the type pictures are being constantly departed from. Let me beg of you, then, to study the individual characteristics and peculiarities of your patients, and while sparing no pains to make yourselves well acquainted with the type pictures which systematic teachers and lecturers describe, to study disease as it occurs in nature; it is only by the unwearied observation of disease at the bedside, and the study of the special features of each individual case, by looking, in fact, not only at the lesion, but also at the individual affected by that lesion, that you can hope to acquire that broad and comprehensive grasp, without which no one can be a truly good practitioner. It may be impossible, owing to the very nature of the case, even for the most experienced and accomplished physician to make an ideal diagnosis of the sort I have just indicated in every case, but a minute and exact diagnosis should always be aimed at. In support of this proposition, I cannot do better than quote to you what Dr. Gowers says in speaking of the diagnosis of the diseases of the spinal cord. He writes:—'A tendency is sometimes observed among many members of the profession to undervalue diagnosis. Our business is to cure disease, as far as we are able, and a fear has been expressed lest our study of exactness in diagnosis should be at the expense of precision in treatment.' 'It matters little,' it has been said, 'whether your diagnosis of a diseased condition is minutely exact, if you are able to cure it.' This is true, but a very superficial study of practical medicine will show that much diagnosis, which is of no direct avail for treatment, is essential for the diagnosis which enables us to treat successfully. Of all organs there are some diseases for which we can do little, there are others for which we can do much; but unless we are able accurately to distinguish the diseases of each class, we shall be unable to apply our skill where it will be effective. Moreover, there are examples of the same form of disease, in some of which the diagnosis is easy, in others most difficult. The diagnostic knowledge which is superfluous in one case, is essential in another.'[2]

I hope I have now impressed you with the idea, that you should in all cases do your best to make a full and exact diagnosis. Now, in order to attain this end it is necessary—

1. To have a sufficiency of facts.
2. To have the facts correctly observed and noted.
3. To give due weight to the individual facts, and to the manner in which they are grouped; and to draw the logical conclusion therefrom.

The facts of the case include—

(1) Certain *preliminary particulars*, viz., the age, sex, occupation, etc., of the patient.

(2) *The previous history*—
- (*a*) Of the present attack.
- (*b*) Of the patient's former health.
- (*c*) As to his social surrounding, habits, etc.
- (*d*) As to his hereditary tendencies (the family history).

(3) *The symptoms*,[3] *i.e.*, the morbid sensations experienced by the patient.

[2] "The Diagnosis of Diseases of the Spinal Cord," p. 1.

[3] Symptoms are usually divided into subjective and objective. *Subjective* symptoms are those abnormal sensations, such as pain and numbness, which are experienced by the patient, but which cannot be appreciated by the physician. Under the term *objective* symptoms, are included such obvious abnormal conditions as jaundice, swelling of the feet, &c., which are perceived by the physician, but which do not require any physical examination, properly so called, for their detection. The *physical signs*, again, are such facts as dulness on percussion, which the physician elicits by physical examination. It is preferable, I think, to include the objective symptoms and physical signs under the common term of *facts observed by the physician*. Jaundice, swelling of the feet, and other conditions which are detected by the aid of sight, are just as much physical signs as râles or murmurs which may sometimes be observed by the unaided ear.

(4) *The facts observed by the physician*, including the objective symptoms and the physical signs.

The correct observation of the facts of the case.—In my next lecture I shall speak in detail of the manner in which the facts of the case are to be elicited (case-taking), but I may mention here, that the particulars on which the diagnosis is founded are derived, partly, from the statements of the patient (the *oral* examination, as I am in the habit of terming it); and partly, from the direct observation of the physician himself (the *physical* examination). Both methods are difficult to learn; and it is only after considerable practice and experience that you can hope to observe and note the facts correctly.

Let me urge you to use your utmost endeavours to correctly elicit and record the facts of the case. In these days of clinical and literary activity, one of the main lessons which the teacher should impress upon the student, is the *habit of careful, accurate, and truthful observation.* No one is a truly great clinical observer who is not scrupulously truthful and exact. Let me beg of you, then, from the very first to strive above all things to elicit and record the facts *as they are in nature*, and to be on your guard against seeing the facts in a false light, colouring them, and making them fit in to the supposed nature of the case. If there is one thing above all others which I desire to teach you,—and if I were to impress you with this one point only, and to teach you nothing else during the whole session, the course would not be altogether wasted—it is to have in every clinical observation, however trivial, the most scrupulous regard for truth.

The conclusion derived from the facts.—As I have already stated, due significance must be given to the different facts, and a logical conclusion deduced from them. Here, again, knowledge and experience are necessary to enable you to appreciate the relative importance of the different facts. Some facts are much more valuable than others. It occasionally happens that a single fact is itself distinctive; the presence of a diastolic aortic murmur, for example, indicates aortic regurgitation;[*] the presence of hooklets in the fluid drawn off from a cystic tumour proves that the cyst is an hydatid. Such facts as these, which are in themselves distinctive, are termed *pathognomonic.* But while such pathognomonic facts do occasionally occur, you must clearly understand that they are rare. The great majority of symptoms and physical signs are common to several diseased conditions. Pain is perhaps the most common symptom, and is seen in a vast number of different affections. Again, cough may be due to many different disorders. So, too, dulness on percussion over a portion of the chest, which is normally resonant, may result from various lesions.

It usually happens in every case that we elicit some facts which are accidental and unimportant. In a case of pneumonia in an adult, for example, the fact that there had been an attack of scarlet fever in childhood would probably be of no importance whatever. In a case of mitral disease, on the contrary, a history of scarlet fever, a few years previously, might be of considerable value, for scarlet fever in some cases is attended with endocarditis, which leads to valvular disease of the heart.

Speaking generally, the *facts observed by the physician* (objective symptoms and physical signs), inasmuch as they do not depend upon the mere statement of the patient, are of more importance than the symptoms (*i.e.* the subjective symptoms or sensations experienced by the patient). Due weight should, however, be given to the symptoms unless there is some obvious reason to the contrary. When the patient is manifestly exaggerating, when he is labouring under some mental derangement, or when there is a motive to deceive, the diagnosis should be almost exclusively based upon the physical signs. Women are more apt to exaggerate than men; but this tendency is seen in its fullest extent in the condition called hypochondriasis, in which the patient imagines that he is the victim of all sorts of dreadful complaints, magnifies the most trivial ailments in an extraordinary manner, and seriously believes that he is the subject of grave organic disease. In hospital practice it is no uncommon thing to meet with patients who feign disease. These 'malingerers,' or 'hospital birds,' as they are called, pass from one hospital to another, and keep a roof over their heads by their deceit. It often requires considerable acumen to detect them. Malingering is, as we all know, not uncommon amongst schoolboys. It is also frequently met with in soldiers, sailors, prisoners, the inhabitants of workhouses, and the like. In railway cases, too, we sometimes meet with gross exaggeration and shamming. We find persons who have been in a railway collision, but who have received little or no injury, taking to bed, laying up for weeks or months, and pretending to be seriously ill in order to exact heavy damages from the company. Hence it is that all railway cases are looked upon with more or less suspicion; a most unfortunate circumstance for those persons who are really hurt, for in consequence of this feeling of suspicion, which is attached to all railway cases, the genuine ones are often inadequately recompensed.

In other cases, on the contrary, patients who are the victims of serious organic disease, make light of their complaints. In phthisis, for example, a patient will daily tell you that he feels much better, when it is manifest to the most casual observer that he is rapidly getting worse; indeed, so frequent is this hopeful state of mind in pulmonary consumption, that a special name, the *spes phthisica*, has been given to it.

Young doctors whose experience has been limited to hospital practice, and who start perhaps with an exaggerated notion of their powers of physical diagnosis, are apt to disregard symptoms. I know this from actual experience. The following case, which I met with soon after commencing practice, is in point: A man presenting all the appearances of robust health, and who was obviously not exaggerating, consulted me on account of pain in the left chest and back. Not detecting anything abnormal by physical examination, I pooh-poohed his complaints, and gave it as my opinion that there was nothing seriously the matter with him; soon afterwards he died suddenly; and on making a *post-mortem* examination I found an aneurism of the descending thoracic aorta. It had ruptured into the left pleural cavity, causing instantaneous death.

But while anxious to impress you with the fact that due weight should always be given to the symptoms, unless there is some strong reason to the contrary, I must not lead you to suppose that grave symptoms are necessarily present in every serious case; indeed, it occasionally happens that patients die who have manifested no symptoms, and made no complaints. Absence of symptoms in the presence of serious organic disease is seen more frequently in chronic than acute affections. In this case for example (see specimen shown to the class), in which a small aneurism springing from the base of the aorta, just above the valves, has ruptured into the pericardial sac, there were no symptoms during life. The patient was a butcher, he died suddenly one day in the street. During life he had presented all the appearances of robust and vigorous health; and so far as could be ascertained from his friends, had never made any complaint.

Occasionally, but more rarely, we see the same thing in acute affections. The preparation, which I now show you, is a striking illustration of this fact: A girl,

[*] A diastolic murmur has been recorded in aortic aneurisms, independently of aortic incompetence; but it is so infinitely rare, that the statement in the text may be safely relied upon.

æt 17, who had previously enjoyed good health, but who had never menstruated, complained of uneasiness in the upper part of the abdomen, and of constipation. The tongue was slightly furred, the pulse a little quick, the bowels had not been relieved for a week, but there was nothing to direct attention to any serious disease within the chest. A dose of castor oil was prescribed. A few days after I was suddenly summoned to the case, and found the patient dead. She had passed a somewhat restless night, but had got up to breakfast as usual; had suddenly complained of feeling faint, and had fallen back dead. All the organs were healthy with the exception of the heart. The pericardium was distended with turbid fluid, and both surfaces,—the parietal and visceral layers of the sac—are, you will see, coated with recent lymph. The case was one of pericarditis; syncope was the cause of death. On inquiry I ascertained that she had waded in the sea a fortnight previously, and for some days afterwards had been a little hoarse. There was no history of rheumatism. So trivial were the symptoms in this severe and acute case, that the patient was able to go about her work, that of a baker's assistant, until two days previous to her death. The case is a very interesting one, being an example of a rare disease—*latent* pericarditis, which was apparently *idiopathic*.

I have now detailed to you the ordinary means by which we arrive at our diagnosis, viz., by the *method of deduction*. In some cases we employ another method, viz., the *method of exclusion or negation*. When, for example, the facts seem to point to several, say four, different affections without indicating any one of them in particular, we endeavour to find some symptom which negatives or contradicts, and so excludes one of the four; the same process is again, if possible, repeated, and so on, until three of the four are excluded, and one alone remains. This method of negation is of value in some difficult cases, but "it is a roundabout method" (*Da Costa*), and is not adapted for general use. It should only be employed when the deductive method seems to fail. It is, too, an uncertain method, for, in using it, we must be quite certain that we have excluded all the possible conditions except one. If, for example, in the case I have supposed, there should be five instead of four possible affections, and if we have omitted to think of and take into account the fifth, that one (the fifth) may be *the* affection, and our conclusion will of course be false.

In other cases, again, we have recourse to therapeutics in order to clear up the case (we make a *therapeutic diagnosis*). In a case of supposed abdominal tumour, for instance, if, after giving chloroform, we find that the tumour disappears, we at once conclude that it is not a tumour in the ordinary acceptation of the term, but a "phantom growth." Or again, suppose the symptoms and physical signs clearly point to the presence of an intra-thoracic tumour, but are insufficient to enable us to say whether it is an aneurism or a solid growth; if after giving full doses of iodide of potassium combined with absolute rest, we find a marked improvement in the case, we should (speaking generally) be justified in deciding in favour of aneurism, for the symptoms caused by aneurisms are, usually, materially benefited by this treatment, but those due to solid intra-thoracic growths, which in the great majority of cases are malignant lympho-sarcomata, are not.

Then again, in other cases, we have to fall back upon the *theory of probabilities*, *i.e.*, the numerical chances in favour of one or other of two conditions. Suppose, for example, that a female patient came to us complaining of swelling of the abdomen, and that on examination we found that the cause of this distension was a large cyst; the numerical chances would be very strongly in favour of an ovarian tumour; and unless there were some strong reason to the contrary, the fact should be allowed due weight. In the great majority of cases in which we followed the numerical chances and diagnosed an ovarian tumour, our conclusion would be correct. The following is a case in which it was wrong: A married woman, æt. 33, was admitted to the Newcastle-on-Tyne Infirmary, under my care, on June 20th, 1877, suffering from great distension of the abdomen. She stated that she had enjoyed excellent health until two years previously, when she began to suffer from pain in the abdomen just above the right groin, and noticed that the lower part of her belly was swollen. The swelling, which was at first about the size of an orange, gradually got larger, and rapidly increased in size after the birth of her last child, which took place on April 1st, 1876. Of late her general health had deteriorated, and she had lost flesh. She had been married for thirteen years, and had had nine children. She had not menstruated since her last pregnancy. She was pale, sallow, and somewhat emaciated. The *digestive*, *respiratory*, *circulatory*, *urinary*, *nervous*, and *integumentary* systems seemed natural. The abdomen was largely and uniformly distended; it measured 41 inches at the umbilicus. The skin was somewhat tense, and the veins in the anterior abdominal wall were slightly visible. The front and sides of the abdomen were dull on percussion. There was some resonance in the left hypochondrium. On palpation, the outlines of a large tumour extending from the pelvis below, to the lower margin of the right ribs above, could be distinctly defined, and in addition some free fluid in the cavity of the peritonæum was detected. Distinct and independent fluctuation was perceived in the large tumour. There was tenderness on palpation over the cyst. On vaginal examination the uterus was found to be of normal size; a round elastic tumour about the size of an orange was felt in Douglas's pouch. Owing to the great distension of the abdomen, the abdominal viscera were displaced upwards, but the size of the liver was not, so far as could be ascertained, increased. From these physical signs it was evident: (1) That the distension of the abdomen was due to the presence of a large cyst; (2) That there was some free fluid in the cavity of the peritonæum; (3) It was further concluded that the cyst was ovarian; this opinion being based upon relation of the cyst to surrounding parts, the very distinct history, which the patient, an intelligent woman, gave of its growing upwards from the lower part of the abdomen and upon the numerical chances of the case.

On June 23rd she was attacked with subacute peritonitis. There was pain over the greater part of the anterior abdominal wall; and very distinct friction could both be felt with the hand and heard with the ear over the same parts.

On July 6th the pain was easier; the abdomen had increased in size, and now measured 44½ inches.

About this time the patient was seen in consultation by my friend and colleague, Dr. Arnison, to whose care she was transferred on July 9th. She was then, as indeed she had been all along, very anxious to have the cyst removed. Dr. Arnison subsequently operated. On opening the abdomen it was at once evident that the tumour was an enormous hydatid. It extended from the liver above, deep down into the pelvis below. Several smaller cysts were attached to the larger one, and it was one of these which had been felt *per vaginam*. The patient unfortunately died from peritonitis, a few days after the operation, and the body was removed from hospital before a *post-mortem* examination could be obtained. The exact point of origin and connections of the hydatid were not ascertained.

In order to arrive at a full and exact diagnosis, we are in the habit of advancing by the following steps or stages:—

Step No. 1. In the *first* place we endeavour to *deter-*

*

mine the particular system and organ which is primarily affected. This is generally easy. Sometimes, as in typhus fever for example, we are unable to localise the lesion in any special part.

Step No. 2. Having determined the system and organ which are affected, we next endeavour to *ascertain the exact extent of the lesion, i.e.*, to make an exact anatomical diagnosis. We endeavour to make an exact anatomical diagnosis, *firstly*, by making a minute physical examination of the affected organ, in the manner which I shall describe to you when I come to speak of the physical examination of the different systems and organs in detail. *Secondly*, by observing the effects which the lesion has produced on the affected organ itself; on the other parts of the physiological system to which it belongs; and on the economy as a whole. In stenosis of the mitral valve, for instance, we try to gauge the extent of the lesion by observing:—the secondary alterations, which have resulted in the size and shape of the heart; the loudness of the pulmonary second sound (*i.e.*, the condition of the blood tension in the pulmonary artery); the amount of engorgement of the systemic venous circulation, and the consequences which result from it, the exact condition of the arterial system, etc. *Thirdly*, by observing the exact nature of the symptoms; in some affections, more especially in some diseases of the nervous system, we obtain very valuable information as to the exact position and extent of the lesion, by paying attention to this point.

Step No. 3. Having formed an opinion as to the organ affected, and the exact extent of the lesion, we next endeavour to determine the pathological process, which is at work; and in trying to make a *pathological diagnosis* we take the following points into account:—

1. *The particular organ and parts of that organ which are affected.*

As a matter of experience we know that certain organs or parts of organs are liable to be affected by certain pathological processes; consolidation of the apex of the lung, for example, is very generally tubercular; a solid tumour of the body of the uterus is in the great majority of cases a "fibroid;" a chronic lesion limited to the posterior columns of the spinal cord is usually the sclerotic lesion of locomotor ataxy; an irritative "coarse" lesion on the surface of the brain is in most cases syphilitic; paralysis of the extensor muscles of both forearms (double wrist drop) is almost invariably the result of lead poisoning; and so on.

2. *The character of the physical alteration produced by the lesion.*—This can only be determined in exceptional cases. In the case of the lungs, for instance, certain lesions give rise to dulness on percussion. If, then, we detect the presence of dulness we narrow the limits of the inquiry.

3. *The nature of the symptoms.*—Deep-seated pain in the back, for example, occurring in an adult, and not attended by any marked disturbance of the general health, would be very suggestive of an aneurism.

4. *The mode of commencement of the attack, and the course of the case, especially the acute or chronic nature of the affection.*—This is a most important aid in arriving at the pathological diagnosis. When, for example, we find consolidation over the base of the lung, and when we know that it is of recent origin (*i.e.* acute), we can definitely exclude solid intra-thoracic growths. So, too, in a typical case of permanent hemiplegia, if the onset were sudden, we should conclude, as the result of experience that the pathological process was in all probability either extravasation of blood into the brain substance (hæmorrhagic apoplexy), or plugging of a cerebral vessel.[5]

The *exact mode of onset* is also sometimes important. In a case of hemiplegia, if the paralysis followed an epileptic fit of the localised (Jacksonian) type, we should probably be correct in concluding that it (the hemiplegia) would be of temporary duration, and further, that the pathological process at the root of the mischief would in all probability be a localised "coarse" intra-cranial lesion (tumour or localised meningitis.)

When considered in conjunction with the exact anatomical diagnosis, the mode of onset is often quite conclusive. We know, for instance, that sudden paralysis of the lower extremities in a child, characterised by flaccidity, rapid atrophy of the muscles, and unattended by sensory paralysis, depends upon an acute inflammatory process in the anterior cornua of the spinal cord.

5. *The presence of associated diseased conditions.*—In the case of a doubtful intra-thoracic growth, the presence of tumours in other organs or parts of the body, would show that the intra-thoracic disease was a malignant growth. Soo, too, in chronic Bright's disease, the presence of a solid and uniform enlargement of the liver and spleen, would strongly point to the lesion being "waxy." Again, in a case of intra-cranial tumour, the presence of associated scrofulous disease of the glands, lungs, or joints, would indicate that the central lesion was of a similar pathological character.

6. *The age of the patient.*—Certain pathological processes are common at one period of life, but rare at others. In some cases this fact may help to decide the pathological diagnosis. Deep-seated pain in the back, for example, in a young subject, would probably be due to caries of the vertebræ (Pott's disease). Pain in the same situation, during active manhood, might result from the presence of an aneurism; in an old person, from malignant disease of the spine.[6]

In addition to the points I have already mentioned (1, 2, 3, 4, 5, and 6), the following circumstances are sometimes helpful in deciding the pathological diagnosis:—

7. *The occupation of the patient.*—A rapid attack of ill-developed pneumonia with fever, ending in death, *in a woolsorter* would suggest anthrax. Headache, convulsions, and double optic neuritis *in a white-lead-worker*, would suggest plumbism, in others (*i.e.*, persons who had not been exposed to the action of lead) the presence of an intra-cranial growth.

8. *The abode of the patient.*—A cystic tumour of the kidney, if it occurred in Iceland, would probably be diagnosed as an hydatid, for hydatid disease is very prevalent in that country; neuralgic affections occurring in places where ague is endemic, are very often due to the malarial poison; and so on.

Before concluding these remarks, it may perhaps be useful to point out the chief sources of error in arriving at a full and correct diagnosis. In the *first* place, then, a diagnosis may fail through *insufficiency of facts.* The facts may be actually wanting. In the earlier stages of a febrile attack, for instance, it may be impossible to come to a definite conclusion; under such circumstances we must be content to make a *provisional diagnosis*, and to wait for the appearance of additional facts. Again, the facts may be insufficient owing to the information supplied by the patient being defective. Some patients wilfully conceal facts; others cannot furnish the necessary facts owing to their being children, foreigners, speechless, comatose, or affected with some mental derangement. In such cases, we have to fall back upon the friends for many particulars, and if, as it may happen, there are no friends, we must rely on the physical examination alone. In cases of this descrip-

[5] I say a typical case, for in hysteria we sometimes meet with sudden hemiplegia (presenting certain peculiarities however) which may last for a long time.

[6] This does not of course imply that malignant disease of the vertebræ does not occur in young persons, or that old people do not suffer from aneurism or caries.

tion, the grounds for forming an accurate opinion may be insufficient. This explains the difficulty of diagnosing simple affections in lunatics.

In the *second place*, a diagnosis may fail through the incorrect or erroneous observation of facts. The patient may wilfully deceive you, or your own observation may be at fault.

Defective or incomplete observation on the part of the physician, is a fertile source of error, especially to young practitioners. In a case of dropsy, for instance, the urine is found to be albuminous, and it is an easy and common error to conclude that Bright's disease is the cause of the dropsy. In many of these cases more careful and complete examination will show that the albuminuria is simply the result of congestion of the kidney; and that it and the dropsy depend upon a mitral lesion. I have again and again met with such cases in practice. I must ask you then to remember that because you detect one lesion, it by no means follows that there is no other lesion present; owing to neglect of this precaution, complications and secondary affections are often mistaken for the primary disease.

You should, too, remember, that in the course of the case new facts are apt to appear which may cause you to modify or add to your diagnosis. One is very apt, after having thoroughly examined a case and formed an opinion, to stick to that opinion, and to see everything else which subsequently appears in the light of that opinion. Again, unless we occasionally thoroughly re-examine the case, we may fail to observe the new facts which are developed. Such omissions lead occasionally to unfortunate results. In a chronic case, for example, the friends may desire a consultation. The consultant thoroughly examines the case, and detects something which has escaped your notice, simply because you have not looked for it. Such mistakes are very vexatious. The consultant will probably form an erroneous opinion of your skill. If he is inclined to "score" and make much of his own powers of observation, you may possibly lose the confidence of your patient. And here let me say, that when called in as consultants,—while on the one hand it is your duty to state honestly and fearlessly the opinion you may form as to the nature of the case; on the other hand you must give due weight and consideration to the opinion of your professional brother, you must take care to state your opinion as pleasantly as possible, and to avoid bringing into relief any omissions you may have noticed, and never, on any account, attempt to magnify yourself or your own opinion at the expense of your colleague. Remember, then, both in hospital and private practice, to re-examine your cases, and to revise your opinions. You will, too, find it a useful practice, whenever a patient or his friends are anxious to have another opinion, to go thoroughly over the case a short time before the consultation comes off.

In the *third place*, though the facts are sufficient and have been correctly noted, you may fail to give them the proper weight, or may draw an illogical conclusion from them.

After having made your examination, and presumably come to a conclusion as to the nature of the case, you will probably be asked by the patient for your opinion. In some cases the request should be frankly complied with, in others it should not. If your opinion is favourable, and you take a hopeful view of the case, you should at once communicate that opinion to the patient. A favourable opinion, confidently expressed, is of itself sufficient to effect a cure in many cases; in a large proportion of cases it will produce a decidedly beneficial result. An unfavourable opinion should in most cases be communicated, sometimes quite candidly, at others in a more or less guarded or indirect manner. Much will depend upon the nature of the disease, and the mental temperament of the patient. In some cases it is only by impressing him with the serious nature of the case that you can induce him to submit to the treatment you advise and to take proper precautions. In other cases again, an unfavourable opinion will make a man wretched for life. The following is a case in point:—A gentleman of an extremely nervous disposition had for some years presented a well-marked mitral murmur. The lesion was a stationary one, and the medical attendant being well acquainted with the mental constitution of the patient, had deemed it prudent to withhold the information from the patient, guarding himself, however, against accidents by explaining to the patient's brother the exact nature of the case. The patient, when passing through Edinburgh on his way to the Highlands,—it is now many years ago,—felt a little out of sorts. He consulted a physician, who told him that he had heart disease. The poor man was thunderstruck; he at once gave up his trip, returned home in a state of great mental agitation, and passed a miserable existence for a long time afterwards.

Sometimes, as I have already told you, we are unable to decide what is the nature of the case. Now, it is seldom if ever advisable for a young doctor to tell a patient in so many words, "I don't know what is the matter with you." The laity do not understand the difficulties which in some cases surround the diagnosis. If you tell your patients that the case beats you, they will probably go somewhere else. In such cases much tact is sometimes required to satisfy the patient without committing yourself. If, however, you are asked by a professional man, say in consultation, for your opinion in a case of this description, you should always clearly state your difficulties and doubts. To pretend to knowledge which you do not possess, or to attempt to gloss over the obscurities of a case, is simply one form of quackery.

Finally, let me urge you to avoid hasty conclusions, to form your opinion slowly and maturely; but, once you have made up your mind as to the nature of the case and as to the treatment you should adopt, to stick to your opinion, and only to change it when you are satisfied that there is good reason for doing so. Firmness and decision are essential for great success in practice. On the contrary, there is nothing which is more injurious than indecision. The man who is constantly changing his opinion and his treatment, will never command the confidence and obedience of his patients. Now it is impossible to possess the right sort of self-confidence, to act with the right sort of firmness and decision, unless you feel yourself thoroughly up in your work. I hope that the Course of Lectures which we commence to-day, will enable you to some extent at least to attain that end.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA.

By NORMAN CHEVERS, C.I.E., M.D.,
President of the Epidemiological Society of London.

(Continued from page 792.)

Hospitalism—Pyæmia—Septicæmia—Osteo-myelitis.

In the year 1843, our knowledge of hospital disease, as it was incident on traumatic cases, was not extensive. When, in last century, one died while under treatment for an injury which was not, in itself, of a dangerous character, it was perhaps said that "he had contracted a fever in the house, *which was a very common case; it might be from the foulness of the air in the house.*"[29]

[29] "London Journals for 1765 and 1777," reports of cases in the Middlesex Hospital, which was then in a miserable state from want of funds.

An old writer ascribed the frequent occurrence of pneumonia in traumatic cases to hypostasis, occasioned by long confinement in a recumbent position. Surgeons were only too familiar with tetanus, hospital gangrene, and erysipelas. Travers had written a work on "Constitutional Irritation," and James Arnott and Carsweli had well described and depicted phlebitis as a sequel to amputation. When, in 1843, I published the result of a practical enquiry, made at Guy's Hospital, into "*Certain of the Causes of Death after Injuries and Surgical Operations in London Hospitals*,"[30] I had before me the observation by Dr. Thomas Hodgkin, that he had noticed mottling of the kidneys in two patients who had died after the operation of lithotomy, "*and in others who had sunk after operations and injuries;*" and a remark by Mr. Key, that he had scarcely ever seen a fatal case of lithotomy in which there was not discovered organic disease of some of the abdominal viscera, and more especially of the kidneys. These facts very nearly representing the state of our knowledge upon the subject of blood poisoning in surgical cases 41 years ago—I showed in my paper, that out of 153 fatal traumatic cases in Guy's Hospital, death was proved to have taken place from inflammation of secreting surfaces or internal organs (including the kidneys, liver, and spleen) in 134. In the remaining 19, the patients died from these causes: tetanus, sloughing, hæmorrhage, suppuration, erysipelas, and total deficiency of reparative action in the wound. In one case the cause of death was not discovered. In the 134 cases in which the patients died of internal inflammations, there was marked disease of the kidneys, liver, or spleen, or of all those organs combined in 90. Upon these data, I insisted upon the necessity of invariably taking the precaution of examining the state of the liver and spleen, and of testing the urine for albumen in each patient before deciding upon the performance of any surgical operation, and of postponing such operation, if possible, while either of these organs appeared to be enlarged or the slightest trace of albumen was detectable in the urine. I think that I may unhesitatingly declare that the above precautions were not employed in hospitals when I recommended them, or until long afterwards. My researches received fair credit from Sir James Simpson;[31] but, in 41 years, they appear to have died of old age, surviving only in the writings of my friend Sir Joseph Fayrer. Side by side with that excellent authority I observed this class of diseases in the Calcutta Medical College Hospital for nearly fifteen years. As I have mentioned above, this hospital was built for the express purpose of relieving the native hospital of its medical cases, the surgeons of the latter institution perceiving clearly that cases of dysentery and fever necessarily infect a surgical hospital. The new building was accordingly named the "*Fever Hospital*." Had it been designated the "Surgical Hospital," and had it been strictly set apart for traumatic cases, the result might probably have been more favourable; but, unhappily, the old plan of massing surgical and medical cases together in a common atmosphere was again adopted here; the result was that the place became a hot-bed for hospitalism in its direst forms.

Writing in 1854, when he was in the habit of visiting the wards of the still new building in his capacity of Government Examiner in the college, Dr. Kenneth Mackinnon stated that wounds made in operating there were apt to take on an erysipelatous action, tending to sloughing, especially in the rains. Subsequently to this, during the fifteen years of my incumbency as senior medical officer of that hospital, our best care could not keep its surgical wards free from hospitalism in its worst forms—pyæmia, osteomyelitis and, latterly, in 1873, erysipelas. Once, in 1866, there was a transient outbreak of hospital gangrene, which ceased when we removed the traumatic cases to tents on the flat roof of the building. There were, however, few years, up to the time of my leaving, eight years ago, in which some of those operated upon did not succumb to gangrene. Full and most graphic accounts of the hospitalism of that very unfortunate building have been given by Sir Joseph Fayrer in his "Clinical and Pathological Observations in India."[32] Within my recollection the localities surrounding the Medical College and Native Hospital might have been regarded as vying with each other in presenting all the most hideous impurities which characterised Indian cities 30 years ago. The surgical and medical sick, cases of amputation and compound fracture, sloughing dysentery, and malignant cholera, occupied a common atmosphere. The natives treated there were poor, though not, for the most part, markedly scorbutic, but probably none were free from malarial cachexia. Although never swerving, practically, from their determination not to abandon this very showy building, the Government were very liberal in carrying out most of our recommendations for its improvement. The eye patients had been removed to another building previous to my incumbency. The obstetric patients have subsequently been placed in a hospital of their own. At our solicitation, the native buildings which closely invested the hospital were cleared away, and the neighbouring town sewers and our own drainage were improved. We shared the benefits of the new water supply. The latrines on the surgical side were removed from the body of the building to separate towers. The surgical wards were, as far as possible, shut off from the medical. A lavatory and a separate ward for the male cholera patients were provided. The female cholera patients lay with the other sick up to the time of my leaving. We set apart a large and airy apartment (our council room and library) as an operation ward. We diminished the number of beds in the surgical wards, and laid down impervious floors throughout the building which, as it now stands, has probably been made the best of; but I and its many able surgeons have not succeeded in convincing the Government that it can never, by any practicable means, be rendered a fit receptacle for the sick and wounded of a city, standing, as it does, upon an oozy basis of town filth, situated close to a huge mal-odorous public market, and with its beds lying in the course of the prevailing winds which blow stenches from end to end of every ward.

In reply to my enquiry as to how the surgical patients have fared during the last eight years, my friend, Mr. S. Bowen Partridge, informs me that of that period only 21 months, ending December, 1879, were spent by him in surgical charge. During that time there was no case in his wards of pyæmia, osteomyelitis, or hospital gangrene. They were "certainly freer from all forms of hospitalism than they had been, and their surgical operations were very fairly successful." During that time Mr. Partridge had 46 scrotal tumour cases, with a mortality of five (one from erysipelas, of which there were several cases). He had twenty lithotomy cases, with eighteen recoveries, one death (an old man who died from kidney mischief after the operation-wound had healed, and who was found to have a stone impacted in the ureter), and one who, having been recently operated on, was still in hospital when Mr. Partridge left. He used antiseptics very freely, and paid especial attention to the cleanliness of their instruments, and to this, in a great measure, he attributes the good result in the stone cases. He invariably dressed all large suppurating surfaces, such as scrotal tumour wounds, with carbolised

[30] "Guy's Hospital Reports," 1843, p. 78.
[31] "Obstetric Memoirs," vol. ii., p. 10, and "Twelfth Clinical Lecture on the Diseases of Women."

oil, and an abundant outer covering of clean cotton-wool, which he looks upon as a most valuable antiseptic air-filter.

The following extract from Mr. Cockerill's Surgical Report of the Madras General Hospital for 1882, forms a pleasant contrast to my sad recollections of the Calcutta Medical College Hospital.

"All the surgical wards are cool and airy, being freely swept by the sea-breeze; and to this, and to the fact that the windows and doors are always open, I attribute the almost entire absence of erysipelas and other 'Hospital Diseases.'"

Osteo-myelitis took a long course of prevalence in the wards of my surgical colleagues, making its appearance suddenly and ceasing unexpectedly. By my friends' kindness, I watched nearly every case. I regret that the following remarks did not appear while this form of disease was prevalent.

Can we, in amputation, find a covering of Periosteum for the divided end of the bone, without the adoption of any sub-periosteal method?

I first proposed the following plan in 1875:—

Some 38 years ago I dissected a stump which has, on many subsequent occasions, afforded me a good deal of interesting thought.

As a general rule, the soft parts, after amputation in the continuity of a bone, appear to be gifted with the power of healing kindly over the divided cancellated structure. When, in exceptional cases, this does not occur, the result is disintegrative suppuration, ending in necrosis, chiefly involving the cancelli of the divided bone.

This destructive form of inflammation has the still unexplained power of extending upwards to the cancelli of the bone beyond the next joint, as from humerus to scapula. I am not aware that, in any given outbreak of osteo-myelitis, we have any certain power of arresting the infection, still I think that there is a conservative expedient to which we might always have recourse, and which deserves trial, on physiological grounds, whenever osteo-myelitis prevails. Further, I am strongly disposed to believe that, although it appears to be a retrogressive measure, the following provision could be made, with great advantage, in the majority of amputations.

In the case to which I refer, amputation had been made at the upper third of the leg. The patient had probably survived the operation about a month. The parts were greatly wasted. Anteriorly, there was a deficiency of integument and the posterior flap was integumentary. The operator had not sawed off the sharp anterior edge of the tibia. This edge of bone was perfectly uncovered, but it was still living. Above, to the extent of about half-an-inch, and underneath to nearly the same distance, the soft parts had receded from the tibia, leaving an out-jutting right angle of denuded bone; still, although the soft parts had thus receded, or probably sloughed from its sharp edge, they had in no way deserted the tibia. Appearing to have considered that the flaps could not heal over a bony edge of such extreme sharpness, the soft parts had actively undertaken the task of removing this troublesome angle.

Above, in a semilunar line across the spine of the tibia, and below in a similar line crossing the cancelli and the cut edges of the bone, there extended along the margins of the remains of the anterior and posterior flap, fringes of granulations. This upper and lower row of granulations not only surrounded the exposed edge of bone, but had buried themselves in the osseous structure, and had grooved it so deeply as to render it evident that, had the patient lived a little longer, the two lines of granulations would have thrown off the angle of bone (closing upon it as the cutting edges of a pair of bone pliers would do), and would then, doubtless, have met one another and thus closed the stump. Place the knuckle of one bent index finger between the index and middle fingers of the other hand, then bring the joints of the two latter fingers together, and you will see the manner in which the two lines of granulations isolated the condemned angle of bone.

On most careful dissection, I found that the upper line or lip of bone-excavating granulation was a process into which the retracted edge of *periosteum* had expanded itself; and that the lower granulating line was, in a precisely similar manner, produced by the *fascia* of the integumental flap.

Above its upper granulating line, the *periosteum* was found quite healthy and firmly attached to the front of the tibia. Behind its line of granulations the *fascia*, now acting as periosteum, was equally closely adherent to the cancellated structure.

These two very analogous structures were thus found equally co-operating in a salutary work, which, naturally, as it appears to belong to the periosteum, could scarcely be expected from the fascia, unless upon a recognition of this interesting natural law.

When Aston Key first promulgated the doctrine that, in strumous arthritis, vascular granulation-like productions from the synovial membrane advance upon the articular cartilage, erode it in grooves, and so remove it, I paid close practical attention to the subject, and convinced myself, and (*pace* Mr. Bryant) have always remained satisfied of the truth of his observations, largely confirmed as they are by what we observe in the processes of chronic necrosis of bone shafts and caries. In this stump a process, perfectly analogous to that described by Key, was employed by nature for the removal of the offending bone.

My father, a naval surgeon, amputated at Trafalgar (he had sixteen amputations in that battle), and on many other occasions. He was an insatiable reader, and had a most extensive knowledge of the professional history of his service from the middle of last century.

I wrote my paper upon the "Causes of Death after Operations and Injuries in London Hospitals," in his presence. I knew all that he knew about amputation. He feared tetanus and that malignant ulcer, which attacked all wounds in the scorbutic (some of his experience of this terrible disease is given at p. 488, vol. iii., of "Trotter's Medicina Nautica"), but I am confident that he had never seen or heard of the condition of spreading bone inflammation which we now term osteo-myelitis. *In his time all flaps were exclusively integumentary.* I venture to think that the above facts, proving as they do that fascia can perform the part of periosteum, plead for the re-adoption of integumental flaps, especially during the prevalence of osteo-myelitis and septicæmia.

(*To be continued.*)

ON THE CALCULATING SLIDE RULE AS AN ASSISTANT TO THE MEDICAL OFFICER OF HEALTH IN MENSURATION AND STATISTICS.[1]

By GEORGE PADDOCK BATE, M.D.,
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SLIDE rules are instruments of immense use for purposes of calculation; they are easily learned, and are not liable to get out of order. To one who has once worked with the slide rule, and acquired facility in its use, it is always a matter of astonishment that an instrument so rapid and accurate in its results should be so little known, as the drudgery of calculation is

[1] Read before the Society of Medical Officers of Health, May 16th.

saved, and the trouble and liability to error involved in figuring out long sums is avoided by the help of this instrument.

Slide rules are of various patterns, and I show upon the table specimens of several different kinds. All are constructed upon the same principle, though varying in detail and in manner of usage.

The slide rule in its simplest form is a logarithmic scale of double radius; each half reads from one to ten, and each division is subdivided into tenths and hundredths; a precisely similar scale slides in a grove below it, and the divisions of the sliding scale read against those of the rule itself. The fundamental principles of logarithmical arithmetic are that the multiplication of common numbers is performed by the addition of their logarithms, division by their subtraction and involution, and evolution by the multiplication and division of the logarithm by the index of the power or root required. The slide rule is merely a contrivance for facilitating this, and for avoiding the trouble of hunting out the logarithms of numbers from printed tables, and of turning the resulting logarithms back again into simple numbers. Ordinary addition and subtraction cannot be performed by the slide rule, as it simply multiplies and divides.

The ordinary slide rule is a very portable instrument, but its scale is so short and the divisions are so minute that considerable practice is required before it can be used so as to obtain accurate results. Moreover, it is very trying to the eyesight, for in each operation the *first* figure only is read, and the others have to be found by counting up so many tenths, hundredths, and thousandths.

The rule to which I wish to draw special attention this evening is the one which is the invention of Professor Fuller, of Belfast. In this the scale, instead of being straight, is wound in a spiral form upon a cylinder, and the reading is performed by indices instead of by slide against slide, which is an immense advantage. This spiral slide rule is equivalent to a straight slide rule 83 feet 4 inches in length. The divisions are thus much more open than in the short rule, and the results are more easily and accurately read.

In each operation the first *three* figures will be found engraved upon the rule; the third is counted up by the number of tenths, and the fourth has to be estimated by the eye as quarter, half, or three-quarters of a tenth; the results are then absolutely correct up to the fourth figure, while the fifth and sixth are only approximately so, but with practice great accuracy may be obtained.

All numbers and divisions are to be read decimally, so that, owing to our want of a decimal system, all measurements and quantities must be converted into decimals before they can be worked on the rule. In order to simplify this process as much as possible, a series of tables are engraved upon the body of the rule, giving the value in decimals of fractions of the various measurements of length and capacity, and also of money and time, together with some other very useful tables of values.

The rule consists of a cylinder (upon which is engraved the scale); this can be moved up and down upon and turned round a body or axis, which is held by a handle; fixed to the handle is an index, called the "fixed index;" two other indices (whose distance apart is the axial length of the complete spiral) are fixed to a telescopic tube which slides in and out of the body; these indices can thus be placed in any required position with regard to the cylinder, or to one another.

The rule will work with the greatest ease and certainty multiplications and divisions containing a series of factors, single and double proportion, ratio and interest; and by means of the upper scale, which it would be somewhat confusing to describe without the rule in hand, the powers and roots of numbers are within the capacity of the instrument.

It will be seen that the scale commences with 100 and ends with 999; the hundred is read either as one, or ten, or a hundred, or a thousand, as may be required; all the others follow in like manner, so that 999 may be either ·999, or 9·99, or 99·9, or the whole number; thus it is always necessary to know the value of a result for which there are certain simple rules laid down.

Multiplication A × B.—The cylinder is moved till the first factor is read at the scratch on the fixed index, the movable index is set to zero, the second factor is then brought to the same index by moving the cylinder, and the product is read at the fixed index, and so on with any number of factors, such as the height, length and breadth of a room.

The rule for the number of figures in the product is the algebraic sum of the number of figures in the factors, minus one for each factor brought to the upper movable index.

Division.—State the divisor and dividend as a fraction, thus—

$$\frac{600}{300} = x.$$

Set the fixed index to the numerator and the movable index to the denominator, then move the cylinder till the upper movable index is at zero, and the quotient will be found at the fixed index; the rule for the number of figures is the algebraic difference between the number of figures in the divisor and the dividend, plus one for each time the upper movable index is set to the denominator.

Mortality Rates and Percentages.—The ordinary method is to multiply the number of deaths by one thousand or one hundred, and divide by the population. I have here the President's report on the Vital Statistics of Kensington for the year 1881. Table I. gives the necessary data for calculating the rates, shown in Table II. In order to show the degree of accuracy with which the rule works, I give in each instance the actual result as calculated by ordinary arithmetic to three places of decimals.

1880. $\frac{2884 \times 1000}{161462} = 17{\cdot}862$ per thousand.
The true result is 17·861 „

1879. $\frac{2992 \times 1000}{158316} = 18{\cdot}898$ „
Should be 18·896 „

1878. $\frac{3120 \times 1000}{154305} = 20{\cdot}220$ „
Should be 20·219 „

1877. $\frac{2625 \times 1000}{151310} = 17{\cdot}349$ „
Should be 17·348 „

1876. $\frac{2896 \times 1000}{148338} = 19{\cdot}521$ „
Should be 19·522 „

Estimating Population is best done by logarithms for rapidly growing districts, and the estimate may be checked in the ordinary way by the birth-rate and by the number of inhabited houses; but by the slide rule it is very easy to estimate the number of persons existing at any particular age, upon the assumption that the ratio existing at the census enumeration remains undisturbed. For when either of the movable indices is at one number, and the fixed index is at the other, and the cylinder is turned into any other position, though the numbers at the indices will be different, *their ratio will remain constant.* Thus, if one

index be set to the Bethnal Green population, as enumerated in 1874 (120,104 persons), and the other to the number of children under five years of age (18,142), and the cylinder be now moved round, so as to bring the estimated population for each year to the upper index, the proportionate number of children may be read off at the fixed index year by year, until we arrive at the 1881 population as enumerated (126,961 persons), of whom 19,380 were children. Now reading the rule we find it gives at the fixed index 19,180, two hundred short of the true number; this is not the fault of the rule but of the method, the results of which can only be an approximation, and when we distribute the error over the ten years, it is very small, only 20 per annum.

Mensuration.—The cubic capacity of rooms having a rectangular form is calculated by the multiplication of the height, length, and breadth, and for this purpose it is easier to take all measurements by the decimal measuring rod. I have had constructed and use measuring rods divided into feet and tenths of feet instead of inches; but this is not absolutely necessary, as the printed table on the body of the rule gives the decimal value of fractions of a foot.

Circular Wards.—Several hospitals have been built lately with circular wards. The calculation of the cubic contents of such as these would be somewhat tedious, as the method given in books on mensuration is $3\frac{1}{7}$ times the square of the radius multiplied by the height. The decimal value of $3\frac{1}{7}$ is 3·1416, and a ward 52 feet in diameter by 16 feet in height would work out as follows:—$26 \times 26 \times 3{\cdot}1416 \times 16 =$ 33979 cubic feet. Calculated out in the ordinary way, this gives a decimal fraction over; but unless the original measurements are taken with extreme accuracy it is a superfluous refinement to carry the result to a fraction, so that the figures as given by the rule are quite sufficient.

With a little practice one finds the rule capable of working out many problems, and I should not now like to be without mine. Indeed, I often wonder how I got on before I heard of it, as I am a bad calculator.

It is almost needless to say that all problems must be correctly stated before they can be worked on the rule, for, though wonderfully accurate, it is only a machine, and of no more use to a person who cannot correctly state a rule-of-three sum than a pencil is to a child.

The manufacturer of the instrument is Mr. Stanley, of Great Turnstile, and his name is a sufficient guarantee for the accuracy with which it is made. To the kindness of Mr. Stanley I am indebted for the loan of the other slide rules I show upon the table.

Prohibition of Adulterated Butter and Cheese in New York.—The New York Legislature has just passed the Bill prohibiting the sale or manufacture of all adulterations of butter or cheese. The careful investigation carried on by the Committee brought out many curious and disagreeable facts. It was shown that the manufacture of oleo-margarine might be cleanly, and the articles used not unhealthy, but that in many cases this was not true. It also appeared that it was often difficult to detect the difference between butter and oleo-margarine, except by the use of chemicals, and that oleo-margarine was never sold under its name, but as real butter. It was, therefore, recommended that the manufacture and sale be absolutely prohibited, as all attempts to regulate the business have failed. The Bill embodying this recommendation has passed the Assembly and Senate, and is to take effect after July 1st.

REPORTS OF
HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

CASES OF ENTERIC FEVER.

(Reported by Dr. H. Lewis Jones and Mr. F. C. Cresswell.)

Case I.—*Enteric Fever—Parotid Bubo—Perforation of Intestine—Death.*

(Under the care of Dr. GEE.)

W. H., aged 32, a porter in Smithfield Market, was admitted Nov. 19th, 1883. He had been drinking heavily for six weeks, and for a fortnight had felt ill, with cough, headache, and diarrhœa.

His face was flushed, expression heavy and listless, tongue dry and brown, many rose spots on belly and chest. Next day he complained much of the state of his tongue, saying he felt choked by it. It was swollen, very dry and brown, his hands were tremulous, and at night he became delirious. This was the commencement of delirium tremens, which lasted for six days, November 20–26, although at night he slept fairly.

On Nov. 27th he was rational, recognised his friends and complained of pain at angles of jaw, where there was fulness and tenderness, especially on the right side.

Nov. 28th.—Very great swelling and tenderness in both parotid regions, with much pain in swallowing.

29th.—Parotids as yesterday.

30th.—Better; can swallow with less pain; the swellings also decreasing, no fluctuation can be felt in them.

Dec. 1st.—Doing well.

2nd.—Suddenly seized with pains in abdomen, and symptoms of perforation. He died early on the 3rd, the cause of death being perforation of the bowel, just above the ileocæcal valve.

The right parotid was examined, and pus was found in the interstices of the gland.

Case II.—*Enteric Fever—Suppuration around the Parotid Glands—Recovery.*

(Under the care of Dr. CHURCH.)

Florence T., aged 3, admitted in November, 1883, on the third day of her illness, with headache, vomiting, and abdominal pain. On the eighth day rose spots appeared, and her spleen was plainly palpable. Bowels loose. The temperature gradually fell from 104° on the eighth day to 100° on the thirteenth, but that evening it rose suddenly to 103°, and first the left, and afterwards the right parotid region rapidly swelled until she could scarcely open her mouth; the whole face also became swollen and red. Matter rapidly formed, and on the seventeenth day both abscesses burst into the external auditory meatus, the left again preceding its fellow by a few hours. A week later openings were made in front of the ears, and drainage tubes inserted. Convalescence proceeded favourably but slowly, and a small abscess formed on the scalp, fifty-five days after admission, which was opened and healed well.

Remarks.—In the first case the great dryness of the mouth and tongue is noticeable, and it was Dr. Gee's opinion that the affection of the parotid glands might be directly connected with that state of the mouth, by extension of inflammation along Steno's duct.

Similar tender swellings of the parotid glands occurred in a severe non-fatal case of chorea in Dr. Gee's wards

in August, 1883, accompanied by a very dry state of mouth and tongue, but without formation of pus.

Dr. Angel Money, in *Medical Times and Gazette*, Vol. I, for 1883, p. 180, reported a case of parotid bubo in typhoid fever, where great dryness of the mouth co-existed.

CASE III.—*Enteric Fever—Purpuric Spots—Intestinal Hæmorrhage—Death.*

(Under the care of Dr. CHURCH.)

John H., aged 10, admitted in December, 1883. Had been ill eight days, with pains in the abdomen. Bowels not moved for six days. Temperature 101·2°. Four days after admission (twelfth day of illness) several rose spots appeared, and on the following day he passed two loose motions containing blood.

On the seventeenth day of the attack he was much worse, his face pinched, mouth dry and full of foul stringy mucus. His evacuations were passed involuntarily. On the twenty-first day a large conglomeration of purpuric spots was found near the umbilicus, and several others were scattered over the abdomen.

Two days later he died, the purpuric spots having slightly increased.

Post-mortem.—The colon was found full of blood and fæcal matter. Death evidently resulted from hæmorrhage, but its source could not be found. The ulceration of small intestine was moderate.

CASE IV.—*Enteric Fever—Ecchymoses—Relapse—Recovery.*

(Under the care of Dr. GEE.)

G. P., aged 23, admitted Nov. 29th, 1883. He had been ill since Nov. 23rd with headache, vomiting, cough and diarrhœa. The temperature on admission was 104° F. On the 1st of December rose spots appeared on abdomen; he became delirious, and the delirium, which was violent at first, but afterwards became moderate, continued until the 14th of December.

On December 6th (fourteenth day of disease), ecchymoses appeared on both hips. These increased rapidly in size, and on the 7th were each the size of the palm of the hand, and there were two small fresh ecchymoses on the front of the abdomen, the size of a shilling. His condition on this day and the next was very grave, with low delirium, and plucking at the bed-clothes; but after that he gradually improved. No fresh ecchymoses made their appearance, and by Dec. 19th the large patches over the hips had almost gone.

There was a relapse from Dec. 23rd to Dec. 31st, with slight hæmorrhage from bowel on Dec. 31st and Jan. 1st, and on Feb. 1st he left the hospital quite well.

Remarks.—The four cases do not give much help to prognosis beyond this—that neither of the complications foretells a necessarily fatal result.

Dr. Murchison, in his "Treatise on Continued Fevers," 2nd Ed. p. 582, says that he has six times seen parotid bubo complicating enteric fever, and of these six cases five died.

Trousseau too regarded the appearance of parotid bubo as a most unfavourable symptom.

Dr. Murchison also says (Op. Cit. p. 515) that purpura-spots and vibices are met with in rare cases, several of which have recovered, and he also gives a reference to Trousseau which we have been unable to find, as it does not occur in the earlier edition from which the English version is translated.

ST. THOMAS'S HOSPITAL.—The Archbishop of Canterbury will distribute the prizes to the students, in the Governor's Hall, on Wednesday, July 19th, at 3 p.m.

Medical Times and Gazette.

SATURDAY, JUNE 28, 1884.

THE Medical Bill came on for second reading in the House of Commons rather unexpectedly on Tuesday afternoon. Mr. Mundella, who has charge of it there, by virtue of his position as Vice-President of the Committee of Council on Education, did not speak at any length of its provisions. He felt both that they are pretty well known, and that they would have to be fully examined in Committee. He gave a slight sketch of the history of the agitation, which has been carried on more or less actively and persistently for very many years, for medical reform; of the grounds on which that agitation was justified; and of the reforms which the present bill is intended to effect. Its main principles are, he stated, first, the reform of the Medical Council, by diminishing its numbers, strengthening its powers, and giving direct representation upon it to the profession at large; secondly, an approximation to uniformity of examination, by means of the establishment of Medical Boards to regulate the examinations, under the control of the Medical Council; and thirdly, the provision that no one should in the future be admitted to the Medical Register, unless he or she had proved, at the final examination, his or her competency to practise medicine, surgery, and midwifery. The Government have no wish to imitate the State examinations of Germany and other countries, but they desire to make the profession in Great Britain rank as a body among the very first in Europe, and they believe the provisions of this Bill will place them in that rank. But they do not aim, happily, we may add, at any ideal uniformity, or unnecessarily high standard; and while adhering to the main principles of the measure, they are not pledged pedantically to all its details. Finally, Mr. Mundella asked for a full and fair discussion of the details of the measure in Committee; and, if we have understood him rightly, spoke of questions of colonial and foreign titles, of penalties for misuser of title, of medical education, and of some other matters, as questions which admit of amendment. He himself, he said, approached the whole matter with feelings of the deepest respect and gratitude to the profession, and hoped the bill would settle all the questions involved in a way that would add to the dignity and honour of such a noble calling. Altogether it will be admitted that Mr. Mundella showed a full comprehension of the importance of the measure, and a readiness to entertain any proposed amendments of it in a conciliatory spirit.

SIR LYON PLAYFAIR, who said that he had not expected the bill would be reached so soon, and that he would so soon be called upon to speak on it, enlarged on the points referred to by Mr. Mundella; but he spoke also, at some length, of the importance of making the profession more attractive to eligible candidates, and of taking care to secure, if possible, that the universities of the United Kingdom shall take a larger part in the education of medical men. He gave statistics to prove that, from one cause or another, the number

of medical practitioners has not, since 1861, increased in proportion to the increase of the population of the United Kingdom, and the profession had not attracted a sufficient number of men; and he thinks, if wisely framed and wisely administered, the bill may increase the numbers of the profession; while, if unwisely framed and administered, it may have the contrary effect. He dwelt on the great value of a university education in turning out medical men of general culture as well as of professional knowledge; and pointed out that in the constitution of the new Medical Boards care is taken that this training, which exists largely in Scotland and Ireland, and is becoming more common in England, shall still be given to a large proportion of the profession. Whether or no the proposed proportions of the representatives of corporations on those boards is right, will be, he said, a fit subject of discussion when the bill is in Committee; but the essential principle is this, that a university preponderance on the boards will be fair as giving a definite bias to a liberal professional training as against cram by mere examination and examining bodies.

Colonel King-Harman thought there was too much of the principle of centralisation in the bill, and said that the corporations in Ireland complained that it aims to a very great extent at minimising the powers they had worthily exercised, and at confiscating their funds. He announced his intention of proposing some amendments with regard to this question, and hoped they would be carefully considered by the Vice-President of the Council. Two or three other members of the House spoke briefly on the bill, giving it a general approval; but seemed to think that the final examination provided by it for the minimum qualification to practise is to be in addition to the final examinations of the corporations, and this they of course objected to. Mr. Gray distrusts the centralising tendency the bill will have in Ireland, and holds that it will probably end in the destruction of the independence of the local corporations; and he maintains they do not deserve such a fate. He thinks also that the influence of the universities on the boards will be greater than it should be; and he regrets the probable extinction of the Apothecaries' Hall. Whether he intends proposing any amendments did not appear, for while he was speaking the hour arrived for closing the afternoon sitting, and the debate stood adjourned. The bill again came on for consideration yesterday (Thursday) afternoon, but too late for us to be able to record the result here.

Mr. S. Leighton, who is indefatigable in his efforts to protect the children in our elementary schools from over educational pressure, drew the attention of Mr. Mundella on Thursday se'nnight to the fact that a recent weekly return by the Registrar-General contains the following statement, appended by a medical man to his certificate of the cause of death of a young girl: "This the second death in my practice within a week, the cause of which was produced from pressure at a Board School." Mr. Mundella replied that the case was under investigation, and that therefore he would not at present venture to express any opinion upon the medical statement referred to. Mr. Mundella was further asked whether, in consideration of the grave fact that the Queen's Bench Division of the High Court of Justice had decided that the master of a public elementary school has no authority to impose upon the children the duty of studying at home, he would not any longer instruct the inspectors of those schools that a school marked "excellent" ought to provide "a regular system of home exercises?" The answer given to this question by the Vice-President of the Committee of Council on Education was hardly worthy of his position as a Government official. He could not see any reason, he said, to modify the instructions to the inspectors of the schools. All that had been decided by the judgment referred to was that it would be illegal to detain a child in school after hours, against the will of the parent, because the home lessons had not been prepared. But that need not prevent managers and teachers from providing a regular course of home lessons for the children in the higher standards. He admitted that, according to this legal decision, home lessons are not obligatory, and that consequently a child ought not to be punished for not learning them; but, said Mr. Mundella, if we are to believe the newspaper reports of his observations, "I do not think this will make any practical difference." The popular interpretation of this declaration will surely be that the Committee of Council on Education consider that the preparation of home lessons is necessary, and that a regular course of them will be provided for; care being only taken that children who do not learn them shall not be punished in a way already judged to be illegal. Mr. Mundella feels sure, no doubt, that school managers and teachers will invent various not illegal modes of making scholars and parents feel that such lessons had better be prepared; but is it judicious or expedient to provide so possibly fruitful a source of discord between the managers of schools and the parents of the children forced to attend them? We trow not. The evidence of the existence of over-pressure in elementary schools is increasing in bulk and force; and it is rapidly becoming more and more important that great and wise care be exercised in enforcing the code of instruction for such schools. "Knowledge grows, but wisdom lingers;" and the tone adopted by Mr. Mundella is likely to excite a formidable amount of popular irritation against the management of the system of instruction over which he presides.

Lord Rosebery has shown in many ways before now that he has an exceptionally open mind for one of his order, but he never showed it more strikingly than in his suggestion in the House of Lords the other day that artists, doctors and other workmen, should be admitted to seats in that gilded chamber. For our own part we have for years been in favour of the creation of medical life-peers, believing that it would be a boon both to the State and to the profession; to the former by bringing to its counsels the scientific knowledge and judgment which are nowadays so frequently called for; to the latter by opening to its picked members a new and higher sphere of usefulness,

without exposing them to the ordeal of an electioneering contest, and by rewarding them at the same time with a less common and less burdensome honour than a baronetcy. A successful doctor now, feeling an hereditary title in store for him, is driven in his own despite to amass money in support of the future dignity; while if he saw before him the alternative of a life peerage, he could follow his own inclinations and leave even his eldest son to take care of himself. Science ought not to be driven to buttress up the privileges of primogeniture.

The *Standard*, in its comments on Lord Rosebery's proposal, says that there can be "no doubt whatever that Parliament, as a whole, might be very considerably improved by the admission of men to the House of Lords who will not, and cannot be persuaded to, undergo the toil and trouble necessary to secure and to retain a seat in the House of Commons. If the men of culture and refinement who seem likely to be driven every day further and further from the House of Commons could find a place in the House of Lords, it would unquestionably be a great gain to the country. The presence of such men as Mr. Herbert Spencer, Professor Huxley, Sir William Gull, or Sir Frederick Leighton in any Assembly could not fail to strengthen its character, and give it a greater hold on the confidence of the nation." That is a surprising and pleasing admission on the part of the leading organ of the Conservative party.

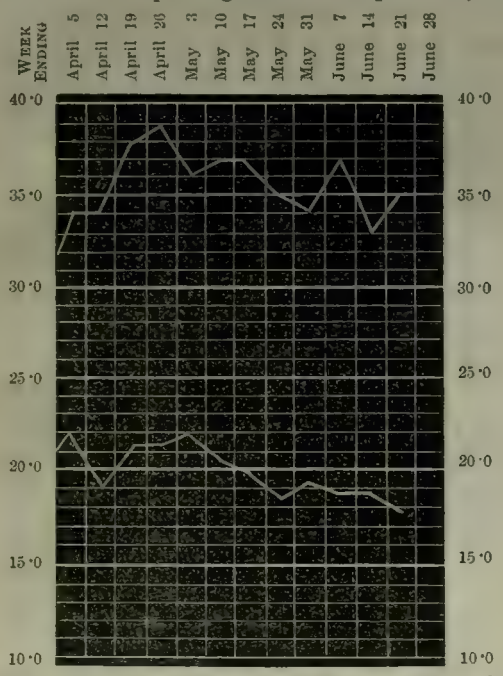
Mr. Gibson, who has made himself the spokesman of the aggrieved officers of the Indian Medical Department, gave notice in the House of Commons on Friday last, that he would call attention to that Service, and move a resolution that day four weeks, *i.e.*, on July 18th.

A most unwelcome guest, writes our Paris correspondent, has suddenly appeared at Toulon, under the form of cholera—whether Asiatic or sporadic is a question still at issue. Toulon, one of the most important naval stations of France, is also one of the filthiest cities in Europe. In the old town the state of the streets defies all description, and as there are no water-closets the refuse of private dwellings is simply poured into the streets, from which it is washed by the rain into the old port. A pretty similar state of things prevailed in Marseilles not very long ago, and the Phocean founders of the cities that stud the coast of Provence do not seem to have brought great notions of cleanliness from their home in Asia Minor. The port of Toulon constantly contains a powerful fleet, and the garrison of the place amounts to twenty-five thousand men. The seeds of disease when sown upon such a promising soil are apt to grow fertile. It has been supposed that a troopship, *La Sarthe* brought the infection from China. A death from cholera is said to have occurred on board, and the man's clothes were not burnt, according to sanitary prescriptions. Be this as it may, the first fatal case occurred on the 14th June (Saturday). A man died on board the *Montebello*. No further deaths occurred till the 19th, since when deaths have occurred daily, viz.: June 19th, 1 death; June 20th, 2 deaths from cholera; June 21st, 3 deaths from cholera; June 22nd, 13 deaths from cholera; June 23rd, 6 deaths from cholera. Captain Duroch, a retired naval officer, who lived in the country on his own estate, having been to the theatre at Toulon, died of cholera the next morning at his residence at Dardennes.

Drs. Brouardel and Proust were immediately sent to Toulon, with a Ministerial Commission. Drs. Straus and Roux, formerly members of the French Scientific Mission to Egypt during the late epidemic in that country, have also started for Toulon, to resume their scientific investigations. Great alarm is felt at Marseilles, which however is protected from contagion at present by the prevalence of the mistral (north wind). Six thousand persons are said to have left Toulon. The troops have been disseminated in various stations outside the city, and all proper sanitary precautions have been adopted. On Tuesday, at the Academy of Medicine, Dr. Fauvel distinctly stated it as his opinion, that the epidemic at Toulon was not Asiatic cholera. He founded his opinion upon the fact, that, instead of growing and spreading, as cholera would be sure to do, if it had once broken out in a city so unfavourably situated, the epidemic was actually losing ground. Drs. Brouardel and Proust, in a telegraphic report sent to the Minister of the Interior, state it as their distinct opinion, that the disease is only cholera *nostras*. The local physicians, however, maintain the opposite view. Proper measures for establishing special hospital services in all large French towns, in case of need, have already been taken. The new establishment known under the name of Hôpital des Mariniers, on the outskirts of Paris, has been devoted here to that purpose. Whatever may be the result of the present alarm, it must be hoped that the opportunity will be seized to use compulsory measures to reform the sanitary state of Toulon, which makes it a focus of infection, either in the case of true Asiatic cholera, or of cholera *nostras*. In the epidemic of 1865, 6,000 persons died at Toulon, out of a population of 70,000 souls, which, by adding the military garrison and the naval service, might be estimated at 110,000 in all. The Republican Government is bound in honour to suppress a standing nuisance, which is not only a permanent threat to the sanitary condition of France, but also to the health of other European nations.

The number of deaths in London last week was as many as 80 below the average, and the death-rate accordingly fell to 17·8 per 1,000, the lowest rate recorded for months. In only twelve of the twenty large English towns, and in only two of the eight large Scottish ones, was there a lower mortality. In both the zymotic and the respiratory class of diseases, the number of deaths exceeded the average—in the one case by 28 and in the other by eight—a fact probably due in some measure to the comparatively low temperature of the week. Of the zymotic class, measles and whooping-cough—the two in which a low temperature most sensibly affects the result—killed respectively 81 and 68 persons, or in the

one case 30, and in the other sixteen more than the average for the corresponding week in ten previous years.



The lower line represents the general death-rate per 1,000, and the upper line the zymotic death-rate per 10,000 in London, for the first twelve weeks of the present quarter.

Diarrhœa and dysentery, on the other hand, were fatal to only 21 individuals, or 26 less than the average. Fifty-nine Londoners succumbed to small-pox in the week, though eighteen of the deaths occurred in the extra-urban hospitals of the Metropolitan Asylums Board. The zymotic death-rate for London was 3·5 per 1,000, and was exceeded in only three of the great English towns, viz., in Liverpool (4·8), Wolverhampton (5·3), and Norwich (4·0).

In recording the mortality statistics of the great towns, the Registrar General in his current weekly report has initiated a great improvement. Hitherto only the death-rate for the past week was given, but henceforward the death-rate in each of the three preceding weeks will be added, so that by a simple calculation the average for the month may be obtained. This evidently lessens the liability to error from causes interfering with the registration of deaths, which are much more likely to make themselves felt in a small population than in a large one. Thus, Blackburn, with some 100,000 inhabitants, records one week a death-rate of 26·4, the next week one of 17·0 In Bolton, with a similar population, the death-rate suddenly falls from 24·9 in one week to 16·3 in the next. In Cardiff, another town of about the same size, the death-rate of one week is 8·4 less than the preceding week; in Leicester there is a difference of 9·5. between two consecutive returns. It is obvious that for some cause or other in comparatively small populations a single week's mortality return gives no real information as to the health of the town, and the Registrar General has done very wisely in giving his readers the opportunity of striking an average.

The small-pox epidemic still continues to steadily advance. As many as 354 new cases were admitted into hospital last week, and there were on Saturday under treatment in the institutions of the Asylums Board 1,316 cases, or 78 more than on the previous Saturday. Unless there is a considerable increase in the numbers attacked within the next week or two, this total, which, has so far been steadily rising, ought now to begin as steady a fall. Three hundred and seventy-four cases have been discharged in the fortnight ending on Saturday, and 931 cases were then described as convalescent, so that there is some ground for hoping that the weekly number of discharges may soon exceed the weekly number of admissions. The strain on the Asylums Board has been excessive, but their efforts have been indefatigable and worthy of all praise.

A few weeks ago we had occasion, when dealing with the subject of school punishments, to speak at some length on the objections to that variety which takes the form of a box on the ears. It is unnecessary that we should recapitulate the anatomical and medical reasons for the view then taken. Public attention has lately been drawn to the subject by the action of a platelayer in withholding his little girl from school at the examination time, because the schoolmistress had boxed the child's ears three days before the examination, and the child had suffered from headache ever since. The school authorities summoned the father for the non-attendance of his child, and very naturally lost their case. Our sympathies are entirely with the aggrieved parent, although we are alive to the possibility that the headache may have been in some measure imaginary.

A distinct case of educational over-pressure, which may perhaps lead to the Government's sending an inspector to report *officiously* upon our medical schools, came before the Wandsworth magistrate last week. It was apparently a simple case of youthful frolic in which the traditional paint-pot played a large part; but the defence was less common-place. It was, in fact, stated on behalf of the offender that he was in training for a doctor, and had been upset by an unsuccessful examination, and he was accordingly remanded on bail. The plea is one which, perhaps with equal truth, might be put forward by a good many young men now in London; but the strange thing is, that these frolics on the part of medical students were much more common when there were few examinations to upset them. On the whole, the increase in the number and severity of examinations appears to have had a steadying effect.

During the past week there have been no less than three meetings in furtherance of a most deserving object: viz., the establishment of more convalescent homes for our sick poor. The meeting at the Mansion House had for its object mainly to support, and so to enlarge the sphere of action of, the Charity Organization Society. Those presided over by the Princess Christian and the Duke of Westminster related to the foundation of a new establishment and the support of the Metro-

politan Convalescent Institution, which has done good suit and service for well-nigh 45 years. All those who have much to do with the sick poor of London will welcome these efforts to provide additional and most valuable weapons wherewith to combat the evils that flesh is heir to in our great metropolis. People seem to be getting tired of subscribing to hospitals, judging from the state of impecuniosity in which most of them are representing themselves to be. Let us hope that the new excitement now offered them will stimulate the dilator fibres of their pockets.

The resignation of the whole honorary medical staff (with a single exception) of the North-West London Hospital, on Monday last, is but the final expression of a dissatisfaction with the existing management that had been growing rapidly of late. The last straw seems to have been the dismissal of one of their number on a charge in respect of which no explanation had been demanded from him. The charge, *on dit*, was of using unparliamentary language in the wards. We have nothing to urge on behalf of the officer in question, but surely the Committee would have exercised a wise discretion in addressing a friendly remonstrance to him instead of a curt dismissal. The action of the staff has, we are informed, perhaps been somewhat hastened by this dismissal, but had been for some time rendered inevitable by the unsatisfactory conduct of the affairs of the hospital by the Committee.

A meeting of the Committee of the new Association of Fellows of the College of Surgeons was held on Tuesday last, Mr. Pollock, President, in the chair. A letter was read from Mr. Bartleet, the Secretary of the old Association, denying the fact that that Association had ceased to exist after passing the resolution which was read by Mr. Wheelhouse at the meeting at the College in March last. It was thereupon resolved to write and invite the old Association to join the new one, and to incorporate the members of their committee with the present committee. A sub-committee was next appointed to draw up a general scheme of reform to be submitted to the committee, which, after being agreed upon, should be laid before a general meeting of the Association for discussion and adoption. A letter from the Secretary of the Members' Association, inviting the co-operation of the Fellows' Association, was then read. In reply, it was resolved that the Secretary should be informed of the nomination of a sub-committee to draw up a scheme of reform, upon the presentation of which a more definite reply to the letter would be given. Meanwhile, the Members Association was requested to give an outline of their own views of the reforms and changes which were thought desirable.

On Friday last Mr. Cowell removed from a patient in the Westminster Hospital a large fibrous tumour of the right ovary, weighing slightly over fourteen pounds. The incision was necessarily a large one, but there was only one small adhesion to omentum, and no difficulty whatever in the operation. Antiseptics were used and the broad pedicle was secured by thin silk ligatures, the cautery also being applied to the cut surface. The patient has so far (Tuesday) had no bad symptoms. The disease is a very rare one and it is proposed to publish a full account of the case.

A two-day conference was opened yesterday (Thursday), at the Health Exhibition, under the auspices of the Social Science Association. The programme for the first day included an introductory address by Mr. F. S. Powell, and a paper by Dr. J. H. Bridges, on the restrictions which should be enforced in the interests of the health of girls and women employed in factories and workshops. To-day Mr. G. W. Hastings, M.P., will deal with the notification of infectious diseases, and Mr. A. H. Brown, M.P., with legislation for Medical Officers of Health.

The composition of the various juries at the Health Exhibition has been made as far as possible international, for wherever it could be done representative foreign members have been attached. A glance at the names of the jurors shows that the executive have made excellent selections, and the awards should be considered authoritative and above suspicion. Difficult as all adjudication is, in this instance the difficulties are greatly enhanced by the hap-hazard way in which the articles have been thrown into various classes. The special "jury catalogue" before us is full of anomalies, examples of which are to be found in every page. Thus Messrs. Moir's canned foods are judged by a jury that has nothing to do with all other tinned meats. Methods and instruments for the analysis of foods are supposed all to be included in Class VII., but more than one important exhibit of this kind has strayed into a different department altogether. Among the blind the one-eyed is king, and an exhibit taken away from competitive exhibits may obtain an award by fortune, not by merit. Representations have been made to the Commission relative to the more glaring inconsistencies, and we trust that an immediate redistribution will be the result.

Two more of the appointments vacant by the death of Dr. James Stannus Hughes have now been filled up. Dr. Thomas Nedley, Physician to His Excellency the Lord Lieutenant, and Medical Officer to the Dublin Metropolitan Police, and to the Board of National Education in Ireland, has been appointed Surgeon to the Lord Lieutenant's household. Mr. Arthur Gerald Chance, Resident Surgeon to Jervis Street Hospital, Dublin, and Demonstrator of Anatomy in the Catholic University School of Medicine, has been chosen surgeon to Jervis Street Hospital, in succession to Dr. Hughes.

On Monday, June 23, Mr. Rawdon Macnamara was elected, without opposition, to fill the seat on the Council of the Royal College of Surgeons in Ireland, vacant through the resignation of Dr. Jacob, lately appointed Secretary to Council of the College. The *contretemps* whereby Mr. Macnamara lost his seat on the Council at the annual election on the first Monday in June is thus happily adjusted.

The election of a Joint Professor of Surgery at the School of the Royal College of Surgeons in Ireland will take place on Thursday, July 3rd. Among the candidates who will certainly be in the running for the Chair are Dr. Anthony H. Corley, Vice-President of the College; Dr. Edward Hamilton, an ex-President and Member of Council; and Dr. William Thomson, Examiner in the College.

The Royal Commission, writes our Belfast correspondent, which has lately been sitting in this town, investigating some matters in connection with the distribution of Scholarships and Exhibitions in the Queen's College, has brought to light some most interesting features in connection with the Medical School here. It has been seen that the Belfast Medical School has suffered most severely from the abolition of the Queen's University, the numbers in some of the class-rooms having fallen considerably below the half of the previous average. Nevertheless the School of Medicine in Belfast cannot be said in any way to have lost vigour. It consists, as most of our readers are already aware, of two very separate and distinct departments, the Queen's College with its medical professorships, and the Royal Hospital; these two departments are in no way connected or amalgamated and only in one instance does a teacher hold appointments in both places. The evidence taken by the Commission showed that though the number of the students had seriously fallen off in both the Royal Hospital and the class-rooms of the College professors, still the Hospital authorities, with the most commendable spirit, have during the last few years very materially improved the appliances and augmented the teaching staff of the institution, which now numbers fourteen members. It is also worth noticing that Belfast presents unusual facilities for the clinical teaching of special subjects, by means of the numerous special hospitals and dispensaries scattered through the town, the majority of which are greedily utilized by the earnest hard-working North of Ireland medical student. It is gratifying to find that though the recent University legislation has diminished for the present the number of students attending these institutions, their respective governing bodies and committees, with characteristic energy, have set about improving and perfecting their teaching arrangements, so that at no period in the history of the Medical School could its efficiency and teaching activity be for a moment compared with its present high standard of clinical education.

The important question of the *cause* of the temporary diminution in the numbers of medical students attending the College and various institutions was carefully examined by the Commissioners, and the evidence proves that it is mainly owing to the new requirements of the Royal University which has now replaced the old Queen's University. The late University enabled a student to take the M.D. degree within four years from his matriculation, whilst the requirements of the present licensing institution compel him to spend at least five years in professional study, the first year being devoted to art subjects, with a compulsory examination before beginning the medical course. This change, as might be expected, has told speedily upon the numbers of young men in a comparatively poor country, who otherwise would have been likely to have availed themselves of the boon which the older University held out to them. The Medical School may, however, be congratulated upon the fact that the extra year's training must enforce advantages upon the future graduates which to some extent will compensate them for their curtailed privileges. The following tabular evidence submitted to the Commissioners will give some idea of the facilities which Belfast at present affords to the students studying medicine at its school.

Hospitals in Belfast actually utilized for Clinical Teaching.

NAME.	No. of Beds.	Annual No. of Intern Patients.	Annual No. of Extern Patients.	Active Teaching Staff.
Belfast Royal Hospital— (Medical, Surgical, Ophthalmic, Gynæcological, and Fever)	180	2,000	10,564 (39,656 attendances)	4 Physicians. 4 Surgeons. 1 Gynæcologist. 1 Ophthalmic Surgeon. 2 Assistants. 1 Teacher of Pharmacy. 1 Teacher of Dentistry.
Hospital for Insane	510	683	...	1 Physician.
Belfast Children's Hospital	40	313	7,244 (14,319 attendances)	2 Physicians. 2 Surgeons.
Ulster Hospital for Women and Children	32	230	4,255 (7,568 attendances)	2 Physicians. 2 Surgeons. 1 Gynæcologist.
Extern Midwifery Dispensary — (in connection with Ulster Hospital)	...	...	300 Labour Cases	4 Physicians.
Belfast Ophthalmic Hospital	30	108	1,500 (6,000 attendances)	1 Surgeon.
Lying-in Hospital	15	250 Labour Cases	...	1 Physician.
Total ...	807	3,584	23,863 involving 67,543 attendances	24 (6 of the above 30 hold two appointments)

In addition to these institutions there are others which may be utilized for purposes of clinical instruction if at any time considered necessary. Thus there are the Union Hospital and Infirmary with 1,600 beds, the Throne Children's Hospital, the Samaritan Hospital, the Ulster Eye Hospital, Skin Hospital, Chest Dispensary, and Mater Infirmorum, with an aggregate annual number of intern patients of over 10,000. There are also six poor-law dispensaries, with about 25,000 cases, involving somewhere about 85,000 annual attendances.

These figures show that there is material enough for what we believe ultimately, and perhaps at no very distant date, will force itself upon the legislature, *i.e.* the establishment of a great Northern Irish University in the capital of Ulster, with its population of not far from 2,000,000. A University in the North of Ireland is especially necessary for the training of its future medical men, and the late Queen's University is acknowledged on all hands to have

produced some of the best men who ever entered the Army Medical Department and other branches of the public services. It may be supposed that the short period of its curriculum permitted men to obtain its M.D. degree without the prolonged course in art subjects which is insisted upon in older Universities; but it must be always remembered that the old graduates of the late University have ever held a high place in the struggle for professional existence in every corner of the globe. The rules which would apply to medical education in London, for example, could not be fairly applied in Ireland, and to insist upon the extra expense of a preliminary course in arts, which is often above the means of the men likely to become medical students, both as regards the amount of the class fees and the expense of one or two extra year's maintenance in a University town, is sufficient to seriously curtail the benefits which the present University offers to the inhabitants of Ulster. Future legislation arising out of the report of the present very able Commission will, doubtless, recognise the claims of Belfast to a University based on something like the broad non-sectarian lines of the late Queen's University, which has been a boon and a blessing to so many of the hard working men of the North of Ireland. The Commissioners, we hope and believe, must have left Belfast impressed very favourably with the care and labour bestowed upon the education of the men who are to be the future practitioners of medicine in the North of Ireland.

Professor Bèclard, Dean of the Faculty of Medicine of Paris, has issued a circular to the professors, students and officials of the Faculty, announcing that a list is open for the reception of the names of those who are desirous of joining the public subscription for a statue to the memory of the great chemist, J. B. Dumas.

The Editor of the *Gazette des Hôpitaux* states that the portion of the Sainte Anne Asylum, at Paris, assigned to Professor Ball for his clinic, is in a most disgraceful state. Beyond three separate cells, which, looking on to the street, expose their unfortunate inmates to jeers, insults, and all kinds of irritations on the part of the passers-by and the neighbours, nothing has been done to carry out the prescription of the law, which insists upon the separation of the violent from the quiet lunatics. All Professor Ball's demands for this state of things to be rectified have gone on unheeded; and in an establishment which should be a model, as it is intended for instruction, arrangements are obstinately adhered to which would not be tolerated in the most humble private asylums. All categories of lunatics are mixed up together during the day in a single court-yard, and accidents and fights frequently occur from the violent coming into collision with the quietly disposed. "It is impossible," writes the Editor, after a visit to this scene of violent confusion, "that this can go on, for it really is a scandal, and since the remonstrances of Professor Ball have produced no effect, the scientific Press must raise its voice in order to compel respect for the tutelary regulations, in the name of humanity and of the law, which on this point is most precise."

The Council of the St. Petersburg Military Medical Academy has determined upon the establishment of ten extraordinary professorships, to be chosen out of the forty *privat docenten* of the Academy. Three of these have already been appointed, viz.: Dr. Wassiljew, who will lecture, in Prof. Botkin's clinic, on the Bacteriology of Infectious Diseases; Dr. Danillo, in Prof. Mierszejewski's clinic, on Nervous Diseases; and Dr. Lawdowski, in Prof. Tarchanow's clinic, on Microphysiology.

We hear that the Medical Faculty of the University of Jena, which (in spite of the great name of Haeckel and one or two other brilliant exceptions) has for some time been in a comparatively languishing condition, has recently shown signs of renewed vitality. This re-animation has been brought about in a great measure by the infusion of new blood into the teaching body. Professor Rossbach has been summoned from Würzburg to occupy the chair of Laryngology, and Dr. Weber-Liel, for many years Privat-Docent at Berlin, has at last received a well-deserved *Ruf* to the professorship of Diseases of the Ear. The departments of ophthalmology, gynæcology, and mental diseases have also been entrusted to thoroughly competent hands, so that Jena now offers more facilities for the study of these various specialties than any other German University, with the single exception of Vienna. Whilst hardly, if at all, inferior to the latter place in its opportunities for medical study, Jena has the advantage of being much more accessible. At Jena, moreover, it is easier to practise the philosopher's ideal of "plain living and high thinking" than amidst the manifold attractions and *dis*tractions of the Imperial City. Situated as it is amidst lovely scenery, Jena is especially to be recommended as a place of residence during the summer months. Even those students—a decreasing number we are glad to think—to whom the language of Goethe (who, by the way, studied anatomy at Jena, under Loder) is unknown, may profitably spend some time there, as most of the professors speak English.

The Josephinum, as the medical school established in Vienna by the Emperor Joseph II., for educating surgeons for the Austrian army, was called, from its very first foundation suffered many vicissitudes, having been established and disestablished three separate times The present deficiency of surgeons in the Austrian army recently led the Minister of War, Count Bylandt-Rheidt, to appoint a committee to enquire into the advisability of once more re-establishing the old Joseph's Academy. The committee, which sat under the presidency of the War Minister, contained, besides several high military officials, General Stabsarzt Hoor, the Oberstabsärzte, Professor Podrazki, Wychodil, Chimani, R. and Carl Kraus, three professors of the medical faculty, viz., Professor Hofrath Langer, Professor Gustavus Braun (dean of the medical faculty) and Professor Hofrath Billroth, with Baron von Mundy and Dr. L. Wittelshöfer. Baron Mundy proposed that the Joseph's Academy should be re-established without debate. This proposal was not accepted, but at a second meeting of the committee, all the members except one agreed to advise its re-establishment, and a sub-committee was chosen to discuss the further details of

the scheme. The report of the sub-committee, which will shortly be presented, is looked forward to with interest in the Austrian capital.

At a recent meeting of the Society of Physicians of Vienna, Dr. Bergmeister showed a girl who was suffering from congenital dermoid growths on both eyes, which were situated symmetrically, partly on the cornea, and partly on the sclerotic. Such tumours, Dr. Bergmeister pointed out, consist of the tissue of the cutis, and sometimes contain fat; their growth is often arrested for a long time, but they usually develop rapidly at the age of puberty. This circumstance had determined the father of the child to come to Vienna for treatment. The disease in Bergmeister's case is associated with a peculiar complication, viz., facial asymmetry. The left corner of the mouth stands at a higher level than the right one, and there is a cicatrix extending from it to the left ear; the left side of the face is also less developed than the right. The association of dermoid tumours with warts in the præ-auricular region has been remarked by Arlt, and cases in which such dermoid tumours have occurred together with colobomata and other abnormalities have been published. Besides colobomata of the lids, hare-lip, clefts of the nose, and asymmetry of the hard palate, dermoid growths have also been found associated with colobomata of the eye-brows, circumstances which render it probable that these pathological abnormalities must have a common cause. Van Dugse has attempted to explain them by assuming that they are the result of a process which takes place *in utero*, the amniotic membrane uniting with prominent portions of the epidermis, as, for instance, the eye-ball. In the case above mentioned Dr. Bergmeister is inclined to regard the præ-auricular cicatrix on the left side of the face as a "fissura buccalis," which had become closed *in utero*.

There is a striking similarity in the histories of all great advances in operative surgery. A bold innovation is brought to a successful issue, and the name and fame of the venturesome operator is borne to the uttermost parts of the medical world, to which the ubiquitous *Centralblatt* may find its way. Equally bold, but less successful attempts are gradually heard of, and are sometimes published. The tide of opinion instantly turns, and the pioneer and his followers are roundly condemned for their unjustifiable and reckless experiments. Gradually, and with many ebbings and flowings of this same tide of fashion in opinion, the successful cases begin to accumulate, and the rationale of the operation, and the arguments for and against it, come to be weighed by the more responsible minds of the medical community. Finally, an authoritative acceptance of the proceeding is made by some great leader of surgery and the new operation takes its place, amid a flourish of journalistic paragraphs, in the recognised catalogue of surgical possibilities. The operation of extirpation of the kidney has lately been granted this honour at the hands of Professor Billroth, in an address recently delivered. The previous history of this operation is in some measure identical with the foregoing sketch. Fifteen years ago it was looked upon as a curiosity, if not exactly a monstrosity, of surgery, and at the present time no less than 250 cases are on record.

Dr. Billroth shows how absolutely untrustworthy is the record of successful, as compared with fatal cases, in determining the prognosis of any single case. Where the number of recorded cases is as yet trifling for statistical purposes, it must happen that a large number of the fatalities are due simply to the late stage of the disease at which the operation has been undertaken, and further, to the physiological imperfection of the opposite kidney. This after all is the chief consideration in these cases, since it has long ago been proved that a single kidney is sufficient of itself to fulfil adequately all the renal functions, and the certainty of the presence of a healthy kidney on the opposite side must rob the operation of much of its dangers, at any rate from the operator's point of view. We hope to present a complete abstract of Professor Billroth's address in an early number.

"The almost enthusiastic welcome" with which his remarks on gynæcological subjects in his Gulstonian Lectures were received, has emboldened Dr. Clifford Allbutt to a further attack on the abuse of specialism. The reproof and warning with which he prefaces the reprint of his lectures on Visceral Neuroses, just published by Messrs. Churchill, will be read with scarcely less approval than the original attack, and we make no apology for bodily transferring them to our pages. "London practice," says Dr. Allbutt, "is unhappily at present eaten up by specialism outspecialised. A smooth-tongued and audacious gentleman needs but six months' practice in the manipulation of some endoscope or other to become a dexterous specialist and a thriving tradesman. How is the public to judge between this man and those learned and capable observers who have found the infinite in the least of things, and who breathe into the study and teaching of the meanest of phenomena a spirit bred in the contemplation of the most lofty? For, indeed, the best men of the day are too lenient in this matter. A young lady told me but lately that a London physician of this strength—one who is chiefly known as a lung doctor, but yet one under whom I would gladly place myself or my friends for any malady—said to her that, having found her lungs to be healthy, he would name another physician who would care for her 'general health.' Now is this sort of thing, of which we hear every day, a tribute to an imbecile kind of etiquette, or is it an indulgent tolerance of something short of rectitude? In any case, if it continues to find encouragement the reputation of our London schools, so dear and precious to us all, must assuredly wane. The robust general practitioners who do possess a wide knowledge of their profession, have hitherto tolerated these manœuvres to please their patients; but they are getting tired of this fashion and contemptuous of its children. The specialist in his turn is beginning to ignore the general practitioner and to annex his patients, and thus science loses, practice loses, and the good fellowship of a great profession is dissolved." With regard to the last point our own experience leads us to believe that the general physician loses more than the general practitioner. People,

especially in the better classes, are getting into the habit of consulting a specialist in all local complaints, and they find the general practitioner more convenient and cheaper for those minor general ailments for which they would have once consulted a physician. If the ailments fail to yield, they find they can ask the general practitioner which specialist to go to with much less embarrassment than they could have asked the same question of a grand physician. The fact is, that general practitioners have been much more responsible for the undue growth of specialism than is generally believed. If, educated by such men as Dr. Allbutt, they could be induced to agree amongst themselves never to recommend any but honest and conscientious specialists, many of the "endoscopists" would soon be driven into other courses. Some day perhaps we may see a league of general practitioners for the regulation of specialism.

At the recent conference on cremation at the Health Exhibition, Sir Spencer Wells mentioned an important and interesting fact which tells strongly in favour of cremation in infectious cases, but which appears to have escaped mention in most of the reports of the discussion. Some persons who had died of scarlet fever were buried in a country graveyard; thirty years afterwards the graveyard was taken into a neighbouring garden, and the old graves were dug up. Scarlet fever forthwith broke out in the rectory and parish, and no other probable source of infection having been discovered, it is difficult to avoid the inference that the germs of scarlatinal infection can retain their vitality during close upon a third of a century.

THE NOTIFICATION OF INFECTIOUS DISEASES.

The assumptions on which the demand for the notification of infectious diseases is based are, from a theoretical point of view, such as admit of no dispute. They are simply these—that if the first sporadic cases were immediately made known to the sanitary authorities, and by the prompt removal or isolation, where practicable, of the first case, and, as they appear, of any that may have been already infected, the extension of the disease beyond the particular house were prevented, it would rarely assume the magnitude of an epidemic; while, at the same time, in the case of typhoid or diphtheria, opportunity would be afforded of discovering and remedying the sanitary defects to which such diseases owe their origin, or which are at any rate important factors in their development. Secondly, that a large proportion of every population are so housed that, though they are not in the legal sense "without proper lodging and accommodation," that is, not without the means of properly tending the patient himself, yet isolation is out of the question unless either the patient or his family be removed in time. Thirdly, that whatever seclusion may be practised in private families there are numerous establishments which cannot fail to become *foci* for the propagation of infectious disease unless prompt measures are undertaken, measures which the public are utterly incompetent to carry out, and medical men themselves are often little if at all more capable of directing. Such are laundries, tailors' and dressmakers' workshops, dairies, shops of all kinds, but especially those for the sale of food and clothing, factories, or places where numbers of workpeople are employed which are under the same roof with dwelling-houses where such disease exists, lodging-houses and schools both boarding and day. Instances of the spread of disease, often with disastrous consequences, by every one of these establishments could be quoted by the score, and it cannot be denied that in all, or nearly all, the results might have been averted by early information of the first outbreak of disease and the removal of the cause.

The opponents of notification take their stand on such ethical, economic and practical grounds as the following. They assert that in some, not all, towns where notification has been tried the results have not fulfilled the expectations of the promoters. Granted; but has it not been owing to defects in the administration of the Acts and the want of willing co-operation between the parties concerned? It is further contended that it is an undue interference with the liberty of the individual and the privacy of the home; but do we not already regulate the storage of explosives and inflammable matters in private houses for the protection of adjacent properties? A third objection is, that it might bring ruin on a tradesman if it were generally known that he had a case of small-pox in his house. This objection we are convinced rests on at least two fallacies—first, that notification is synonymous with publicity; and secondly, that it would always involve closure of the establishment. But both these assumptions are untrue. Where no opposition or obstruction is offered public officials are not in the habit of divulging matters communicated to them in their professional capacity; and if they should do so, all that they would have to say would be that there was no longer any danger, the proper measures having been taken either by the complete seclusion of the patient and his attendants from the business or by his removal when such seclusion was impossible. Further, we imagine that the ruin of a milkman, or washerwoman, or lodging-house keeper who was found to have been the cause of an epidemic would be far more complete than of one who was known to have taken, under official direction, the very best precautions to avert such a contingency; while in the extreme case of the obstinate refusal of the party to submit to the carrying out of the necessary measures and the consequent closure of the business, or as is the practice in some places the placarding of the house, would it not be far better that one family should be ruined than that many should perish by the death of the breadwinner, or suffer the loss of wife or child?

But the opposition is not confined to the laity; medical men themselves have been known to urge that the removal to hospital of a patient who could not be properly isolated has caused them considerable pecuniary loss! We would remind such practitioners that they exist for the good of the public and not the public for their enrichment. Every efficient vaccination and re-vaccination of a person above the rank of a pauper may be said to involve a possible or contingent pecuniary loss to the profession; and it is the glory of that profession that its members are every-

where the most active promoters of all that can tend to the prevention of disease, though their efforts too often meet with small thanks. A more plausible objection is the risk of professional discord between the family medical attendant and the medical officer of health when the latter is engaged in general practice. So long as men in private practice hold these appointments, and especially where the remuneration is so paltry as to attract only the junior and struggling, not to say inferior, members of the profession, the inducement to disparage and supersede the actual attendant will exist and may be yielded to by men deficient in a high sense of honour. The remedy however is obvious, viz., the appointment of medical officers of health either precluded from practice or engaged only as consultants, whose advice and assistance would in either case be willingly accepted or sought.

Notification may be voluntary or compulsory. Voluntary notification has been tried and found wanting, those cases in which it is most necessary being often just those in which it is withheld, private inconvenience and public danger generally going together. As to the party on whom the onus of notification should rest, there has been great diversity of opinion. Apart from all sentimental objections founded on the sanctity of the relations between the patient and his medical attendant, or the supposed indignity of subjecting the latter to compulsion under penalties for default, which by the way is not urged against the duty of giving certificates of the cause of death &c., we must maintain that on many grounds the medical man is the proper party. He alone can diagnose the disease aright, or be provided with the requisite forms or know exactly where, when, and how to give information. The objection that the knowledge on the part of householders that he will report will lead to the neglect to call in medical advice, has not been realised; but such a possibility is effectually met by making the householder equally responsible. That is, that when the doctor has informed the head of the house of the nature of the disease, he shall not only notify it himself, but provide the other with all the requisite information for a separate notification, and that persons who neglect to seek professional advice must find it out themselves or take the consequences of subsequent detection. If a man knows that concealment will involve the risk of a heavy punishment it will be indifferent whether the doctor reports or he does so himself, while self interest will induce him to seek a duly qualified attendant. On the other hand, where there is no compulsion and concealment may be practised with impunity, medical men and patients are sometimes tempted to hush up the unpleasant fact even to the extent of giving a false or equivocal certificate of the cause of death. Space forbids our at present entering on the question of hospital accommodation in places where notification is enforced; we can only observe that though hospitals are necessary for securing the fullest benefit, yet, since *removal* of the patient is not the only measure calculated to check the spread of infection, some good may be effected even without such provision; and as regards the errors of diagnosis familiar to the officers of all fever and small-pox hospitals, the painful consequences of sending a patient thither by mistake and the anxiety to those around caused by such erroneous diagnosis when the sick person remains at home would be prevented by the calling in of a medical officer of health who has made the recognition of these diseases an object of special study.

SANITARY YEARNINGS.

In his eloquent oration of last week, Sir James Paget was undeniably optimistic, as no doubt was quite proper and becoming in one who spoke as a teacher. If we were to put our pessimists into the pulpit, conversions would be few. Still, be the preacher's faith as glowing and his accents as encouraging as they may, there are many of us who, in this matter of national health, are not to be drawn for more than a moment out of those shades of hopelessness in which we habitually move. We can admire to the full the tough, pliant and elastic health which Sir James Paget depicts; we can cherish aspirations and yearnings after it, but when we are told that it is within our reach, we reply for ourselves and tens of thousands of our countrymen, that to hope for it and strive for it were fruitless. We are tempted to say to the "pattern healthy man" as the young lady of the last century was taught to say to her *chaperone*—and we can say it with less evident hypocrisy—"Madam, I can admire, but cannot imitate your virtues." A man need not be a hopeless hypochondriac to hold this belief, or rather want of belief. He has only to go into the slums of the East End and watch the puny, narrow-chested, and hopelessly diseased race into which the once stalwart English people have dwindled; or into the *salons* of the West End and review the wan matrons and be-dentelured *debutantes*, to be infallibly stripped of the last shred of the enthusiasm which Sir James Paget's eloquent words have woven around him. Then if he looks at his friends, his contemporaries, the men who are doing some of the best work in the world, he is quite inclined to think that the *British Medical Journal* has blundered nearer the truth than Sir James Paget, and that science and art *are* after all, "dependent upon invalids." It is impossible, in short, for him to help feeling that all our efforts in the cause of health are but as the toiling at the pumps of an exhausted crew, while the ship is leaking two gallons for every one that they can raise. It is an entirely new experiment in nature, evolving a healthy nation out of an unhealthy one. If they had had good material to start with, sanitarians, with all the manifold aids that science now gives them, and with some yet to be wrung from the State, might have hoped to make something out of this English nation; but the attempt is hopeless unless we come to breeding Englishmen as we do stock, and condemn everyone who has not a good health pedigree and a well-formed chest to perpetual celibacy. And even that experiment may fail, as stock-breeders have found out to their dismay. Still, as, to revert to our simile, we are on the ship and have got to make the best of it, it would be insane to sit down in despair because we cannot hope to make it watertight.

No one, surely, will deny the immense gain to us in health, money and happiness which would be involved in the limitation of the ravages of zymotic diseases. It is true, as Mr. Longstaff recently pointed out, that their entire abolition would not lower the general annual death-rate of England by more than three per 1,000, and that figure would include the whole mortality from diarrhœa, which cannot quite be regarded as a zymotic disease, in the sense that it is as likely to prove as amenable to sanitary measures as other diseases of the class. The ills, again, that spring from immorality and intemperance may, no doubt, be greatly curtailed by science and good sense working in alliance with the State, and other agencies. Blindness, too, a deviation from health which costs the individual much more prolonged and greater misery, and the State much more serious loss, than almost any single disease, and to which we are surprised that Sir James Paget did not refer, might be diminished to the extent of one-third, were the simple directions recently issued by the Ophthalmological Society faithfully carried out. Still there will always remain whole categories of diseases beyond the reach of sanitary science. The creed of the cold bath may do something to lessen the liability to bronchitis and the many diseases that spring from chill, but they will doubtless still continue, in spite of all ablutions, to furnish an immense contingent to the annual array of diseases and deaths. The same may be said of gout and rheumatic fever. In fact, anyone who will take the trouble to peruse Table 29 in the Registrar-General's Annual Report, just published, will see at a glance how many thousands of deaths—and by calculation how many millions of illnesses—from actual disease must always lie beyond the realm of preventive science—*opprobria sanitationis*.

There is yet another point to be considered. In spite of all our efforts and yearnings after health—nay, perhaps in one respect in consequence of them—there is a class of disease which, during the last generation, has advanced by giant strides—diseases of the nervous system. In 1859 the deaths attributed to this cause numbered 26,871; in 1882 the number had risen to 46,806. In the same period the suicides, which might very well be put under the same category, mounted from 1,248 to 1,965. Now, granting that many of the deaths included under nervous diseases may have been due to senile degeneration of vessels, and are therefore admittedly beyond the scope of preventive medicine, and that another large contingent may have had their remote origin in syphilis and drink, there still remains a melancholy residue which no preventive science is likely to touch, and there also remains a notable increase during recent years, much of which on no hypothesis of more accurate certification can be explained away. What can science do for these cases and for this increase—which, according to all appearances, is likely to be more and more marked as the years go on—except by demands for celibacy, which neither the State will endorse nor the individual obey? Why the very conditions of civilisation, which alone make the advent of a sanitary *régime* possible, are in themselves adding yearly more to the number of nervous deaths and nervous sufferers at one end, than science by its best efforts can cut off at the other. To get sanitary rules appreciated and carried out, you must educate; you educate, and immediately find yourselves feeding the lunatic asylums. Then, side by side with fatal nervous disease there is the whole class of neuroses, the possession of any one of which, even in its mildest form, at once disqualifies a man from entry into Sir James Paget's pattern class. The immense increase of this class of diseases within the present century is recognised as a truism, and we think that even the most enthusiastic sanitarian would not be seriously offended if some of the increase were with all imaginable politeness laid at his door. We do not give vent to this assumption in any reactionary sense, or with a view of detracting from the noble gifts of sanitary science; but sanitary science must, like other things, be content to have the defects of its qualities, and this is one of them. The very anxiety for health, which Sir James Paget and the sanitarians inculcate, is an anxiety that breeds hypochondriacs, and tends to that extent at any rate to defeat its own object. Everyone must admit that the highest form of health is unconscious health, just as the highest form of beauty is unconscious beauty, and the highest form of moral excellence is unconscious moral excellence. The typical healthy man is not aware of his health; he does not think about it at all. But the sanitarian would treat him as many a man treats unconscious beauty; he would forthwith proceed to render him not unconscious. In short, the lessons of the sanitarians are, for most of us, making individual health like the "blue flower" of Novalis—a thing to be sought throughout life with infinite yearnings, but never, alas, to be secured.

CLINICAL PAPERS.

XIII. — Some Moot Points in Connection with Diphtheria.

Dr. Parsons' paper on the ætiology of diphtheria, read at the last meeting of the Epidemiological Society, an abstract of which recently appeared in these columns, suggests several interesting and important points for enquiry, such as the frequency of mild and unrecognised forms of the disease, its propagation by direct personal intercourse and the relation, if any, in which it stands to scarlatina. Though the name is of recent introduction, the disease is probably as old as any of those which are connected with insanitary surroundings of human dwellings. In the 16th and 17th centuries the Spanish and Italian physicians described malignant and fatal anginæ, but they, as well as their contemporaries in other countries, failed, probably from the paucity of *post-mortem* examinations in those days, to distinguish between the ordinary catarrhal inflammations of the pharynx and adjacent parts and such as were symptomatic of specific disease. In 1740, the nature of the pseudo-membranous exudation was pointed out by Ghisi, but the treatise on croup by Francis Home, which appeared soon after, by diverting attention to certain symptoms common to all inflammatory affections of the larynx, put a check to further progress in the differentiation of these affections for full half a century. To Bretonneau, who began a course

of careful observations in 1821, we owe the first clear recognition of diphtheria, as a disease distinguished alike from all non-specific inflammations and from scarlatina by certain local anatomical lesions and by subsequent nervous phenomena perfectly characteristic. His views slowly gained acceptance in this country; but the spell of Home's teaching on croup on the one hand, and the importance attached by Bretonneau to the "false membrane" in diphtheria on the other, have exerted such a fascination on men's minds, that it is only now beginning to be understood that while the so-called true or membranous croup is simply laryngeal diphtheria, diphtheria may exist with only the most imperfect formation of a membrane. The term "croup" is equivocal, having reference simply to the peculiar alteration of the inspiratory or vocal sounds and cough consequent on laryngeal affection of almost any kind. It may mean a mere catarrhal laryngitis; or a true spasm of the laryngeal muscles, *laryngismus stridulus*, arresting during its continuance both expiration and inspiration; or it may be laryngeal diphtheria. In the last named, so long as the glottis is not occluded by membrane, inspiration only is interfered with, the muscles of the glottis being paralysed and not spasmodically contracted: the peculiar hissing inspiration is identical with that produced by section of the laryngeal nerves in animals or artificial inspiration effected by drawing air from below through the flaccid glottis of the dead body, being produced in all three cases alike by forcible inspiration through a glottis collapsed by reason of its entire loss of muscular tonicity. It is therefore much to be desired that the term croup were banished from our nosology.

It is impossible to draw any valid distinction between membranous croup and laryngeal diphtheria, because none such exists. Diphtheria may originate in any part of the pharyngeal, nasal, or laryngeal tract and extend to any other, theoretically at least, for though the laryngeal affection rarely if ever does so extend, it is simply because for anatomical reasons any serious amount of such diphtheria is fatal before it has time to spread, unless it end in speedy recovery, in which case it of course does not go beyond its original seat. But why should we persist in restricting the term diphtheria to those cases in which the fibrinous exudation is conspicuous and highly developed? We do not act thus with other specific diseases. We are all familiar with cases of scarlatina in which there is no rash and the nature of which is not recognised until symptoms of kidney mischief, of dropsy or uræmia, manifest themselves, or the nature of the first cases which perhaps recovered without any sequelæ is disclosed by their having given rise by infection to others of typical and unmistakable scarlatina. As Dr. Parsons remarked, whenever scarlatina is epidemic there are to be seen numbers of persons with flannels round their necks who do not suspect that they have anything more than a common sore throat the result of a "cold." And so it is with diphtheria, of which the membrane is but a fully developed stage of the exudation which, like the rash of scarlatina, is a symptom, not the essence of the disease—a symptom which may exist in any degree or be so imperfectly manifested as to escape recognition altogether

This imperfect development is indeed more likely to occur in diphtheria, since it is not so highly differentiated, not so specialised a disease as scarlatina. It is essentially a filth disease, and, as is probably the case with enteric fever, may be generated *de novo* though not *de nihilo*. When once called into existence, however, it is propagated by ordinary infection, whether through the vehicles of air, or water, or by personal contact, or by fomites. The same wide variation in its characters attaches to enteric fever which may be marked merely by looseness of the bowels, weakness and malaise. Indeed it may be said that these diseases vary in more than degree, and pass by insensible gradations into non-specific affections of the pharynx and intestine respectively. As to the relation between diphtheria and scarlatina it is difficult to believe that any true connection exists.

Dr. Parsons appears to have reposed too much on the registered causes of death when he spoke of some members of a family suffering from scarlatina and others from diphtheria, and of the two diseases co-existing or passing into one another. It is much simpler to believe that all such alleged instances are merely errors of diagnosis. That diphtheria may recur is undeniable, and that it and scarlatina are not mutually protective is shown by several cases recorded by Dr. Parsons in which diphtheria attacked persons who had suffered from undoubted scarlatina a few months previously.[1]

The meteorological origination of diphtheria maintained by Dr. C. Kelly and others can hardly be said to rest on any sufficient foundations. The alleged cases may have been simple catarrhal laryngitis, but more probably were due, if not to infection, to the insanitary condition of the villages in which they occurred, whether these consist in sewage pollution of soil and water, as in the Old World, or in the swampy ground reeking with rotten vegetable debris of an American backwoods settlement. Diphtheria is essentially a septic, or if one prefer it a pythogenic, disease, and all cases of sore throat due manifestly or presumably to insanitary surroundings and communicable or attacking several members of a family are, in fact, diphtheritic, although the typical false membrane may not be capable of being seen and handled. These are not unfrequently followed by the characteristic nervous phenomena, but the absence of such sequela no more disproves their specific nature than does the absence of dropsy that of mild cases of scarlatina. N.

Medico-Psychological Association. — The Annual General Meeting will be held at the Royal College of Physicians, Pall Mall, London, on Wednesday, the 23rd of July, 1884, under the presidency of Dr. H. Rayner. Meeting of Council at 10.30 a.m. A general meeting will be held at 11 a.m., for the election of officers, and other business. There will be an afternoon meeting at 2 p.m., the programme of which includes an address by the President, and a paper by Dr. Newth, "On the value of Electricity in the Treatment of Insanity." The Association Dinner will take place at "The Ship," Greenwich, at 7 p.m. Members wishing to attend are requested to communicate their intention to the Treasurer, Dr. Paul, The Terrace, Camberwell.

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[1] Another point of distinction is, that the albuminuria of diphtheria, though it may lead to uræmia, is not, like that of scarlatina, accompanied by dropsy, while the paralyses of diphtheria are unknown in the other disease.

REVIEWS AND NOTICES OF BOOKS.

A Manual of Physiology; by GERALD F. YEO, M.D., Dub., F.R.C.S., pp. 632. London: J. and A. Churchill.—The author of this manual states in his preface that his book was "written at the desire on the part of the publishers that a new elementary treatise on Physiology should be added to the series of admirable students' manuals which they had previously issued." The writer has endeavoured to "avoid theories which have not borne the test of time, and such details of methods as are unnecessary for junior students." His experience as a teacher and as an examiner has led him to lay stress on the points which are hard to grasp and are commonly misunderstood, and he has directed attention more to those subjects which have a practical medical or surgical application than to those relating to abstract physiological subjects. We think the book before us a very good example of what an elementary physiology should be, and we have no hesitation in recommending it to students of medicine. It very fairly represents the physiological substratum, which every student should have at his fingers' ends, and the explanation of several difficult points is good beyond the average, notably the chapters on circulation and respiration. The author leads his readers through a general discussion of biological principles and elementary chemistry, contained in the first four chapters, entitled (1) The general view of the structural characters of animal organisms, (2) The chemical basis of the body, (3) The vital characters of organisms, to the subjects of physiology proper. Knowing from our own experience how ignorant the average student is of the most rudimentary principles of biology or chemistry, we think that this method is excellent; and the manner in which these difficult subjects are handled in these chapters is distinctly good. In the chemical chapter there is just one clerical error, viz., "kreatinin is a dehydrated form of kreatin which is a normal constituent of urine." It should be, *and* is a normal, &c. We think that in discussing the coagulation of the blood, while such prominence is given to the views of Schmidt, equal prominence should be accorded to the more modern ideas of Hammarsten. It is by no means settled that three fibrin factors are necessary; indeed, the probabilities are the opposite way. Even in an elementary book it is not always good to mention only one side of a controversial point. It is scarcely correct to say that the vagus endings in the heart are paralysed by atropin. The sections on muscle and nerve physiology are good. We notice an error on page 517. It is stated that "section of one side of the cord is followed by loss of sensation on the same side (it should be on the *opposite* side) with increased sensitiveness and loss of motion (recovering slowly) on the side opposite to the injury." This should have been written, on the *same* side as the injury. The illustrations throughout the book are good. Many of them are taken from Cadiat, and it is really a pleasure to meet with a fresh set of illustrations, for the old blocks have been copied and re-copied into different books, until one is tired of seeing them. We have pleasure in recommending this book, as a most excellent manual, being what it pretends to be—elementary, and yet containing all that is really of importance to the student of medicine. It is difficult to devise an original method of treating such a well worn subject as physiology, but the present volume undoubtedly has originality in its method. We think the author treats his subject in the best manner possible when he combines microscopical anatomy intimately with the discussion of strict physiology.

Bright's Disease; by HENRY B. MILLARD. New York: W. Wood & Co., 1884.—After the usual chapters on the anatomy of the kidney in health and the characters of the normal urine, the author discusses the various methods of testing for albumen, and the significance of the different kinds of casts that may be found. He then deals with the different forms of nephritis, acute and chronic parenchymatous, or, as he calls it, croupous nephritis, being first dealt with. Chronic interstitial nephritis comes in for the chief share of attention, as is only right, considering its relative frequency to the other forms. As to what he barbarously calls its general causology, he places "catching cold" in the first place, and amongst other causes he recognises the influence of malaria, of syphilis, of heredity, of gout, of lead poisoning, of cystitis, and of heart disease, but he does not admit that alcoholic excesses have any liability to produce this affection. The author does not commit himself to any very positive opinion as to the cause of the hypertrophy of the left ventricle, though he does not accept the explanations put forward by Gull and Sutton, or that suggested by Dickinson; he says that undoubtedly in the great majority of cases the cause of the cardiac hypertrophy is the renal change, but he leaves out of consideration altogether the general state of the arterial system. As to treatment, he speaks of curing cases of interstitial nephritis in the early stages in a much more hopeful and positive way than we, in this country, are accustomed to, and we cannot help feeling that the diagnosis of this pre-interstitial stage is a matter of greater difficulty than he thinks. The book is well got up in every way.

Corpulence and its Treatment on Physiological Principles; by Dr. WILHELM EBSTEIN, translated by Prof. H. H. KEANE, B.A. London: H. Grevel, 1884.—This little book has been so extensively reviewed in the lay press, that the medical profession may well be excused if it has come to entertain a certain prejudice against it. Such prejudice, if it exists, is undeserved. The work is written in a thoroughly scientific spirit, and has no sign of charlatanry about it. It was originally composed as an address to a meeting of physicians, and it is only in the parts dealing with the treatment of corpulence that the author has taken pains to adapt it to the capacity of non-medical readers. It is unfortunate that it has been made the subject of so many leading articles in the daily journals. Professor Ebstein's main contention is, that the moderate use of fat, by diminishing the decomposition of the albuminous elements of food, lessens the appetite, and so renders bearable the restriction of diet necessary in the treatment of corpulence. He therefore allows in moderation such articles as *pâté de foie gras*, salmon, bacon fat, fat roast pork and mutton, kidney fat, asparagus, spinach, and the various legumes; but he unconditionally forbids the consumption of sugar, sweets and potatoes, and limits the allowance of bread to from three to three-and-a-half ounces a day. That is the gist of Dr. Ebstein's teaching; but we would advise all who are scientifically interested in the question to read his book, which, however, we regret to say, has been translated without a sufficient knowledge of medical terminology.

ABSTRACTS AND EXTRACTS.

SURGERY.

ETHERISATION BY THE RECTUM.—The *New York Medical Journal* (May 24th) states that this practice has now been tried in many cases in that city, and with results which, while they prove that it possesses some excellent features, yet show the importance of caution being greater than was at first suspected. The chief benefit derivable from the practice is, the economising of ether employed for anæsthesia, and the avoiding of the preliminary strangling and struggling, so trying to both patient and surgeon. In almost all instances the patient has gradually and with reasonable promptitude fallen into a state resembling natural sleep, preceded by little, if any, exhilaration, and by none of the laryngeal irritation so common in inhalation of ether. The suppression of the nausea which supervenes on recovering from etherisation by inhalation does not seem quite so certain. The method, however, has its serious dangers; for even during the few weeks it has been on trial in New York, two deaths have occurred. One of these was that of a child, and the opinion begins to prevail that the method is not appropriate for children, as the distension and irritation of the intestine produced by the vapour may in them produce serious results. The other case was that of a woman,

whose general health was not known to be impaired (the anæsthesia being merely induced while cauterizing a chancroid); but after death the whole of the large intestine, and the lower part of the small one, were found in a state of acute ulceration. It seems that in the practice of some surgeons intestinal irritation has been met with in almost all the cases, while in others this has been quite the exception; and the inference is, that sufficient care has not always been taken not to inject liquid ether into the rectum; and it is recommended not to employ a tube sufficiently long to allow the vapour to condense before it enters the canal, and to clear the bowels out by an enema before the administration is undertaken.

Digital Compression in Femoral Aneurysm.—Dr. Nicolich, of Trieste, relates the case of a pilot, 44 years of age, who came under his care in 1879 for an aneurysmal tumour, the size of a goose's egg, situated between the middle and upper thirds of the inner portion of the thigh. This was completely cured by means of only nine hours' digital compression. Four years afterwards (December, 1883) the same man presented himself again (having in the meantime, until four months ago, been well able to perform his duties as a pilot), with an aneurysm of the femoral artery, on the same side, of the size of a large orange, and extending from the middle of the thigh to Poupart's ligament. Digital compression was again resorted to, and in a week the aneurysm had diminished in size by one-half, and was indurated and without pulsation. A fortnight later he was exhibited at the Medical Society, and his cure pronounced to be complete. The compression was almost entirely executed by the patient himself, and was suspended during the night and for some hours in the day, the limb then being kept in a state of forced flexion. During the progress of the case he was kept on a very rigorous diet, and took five grammes of iodide of potassium daily. — *Gazzetta Med. Lombardia*, April 26th.

Conservative Surgery.—In a recent number of the *New York Medical Record*, Dr. Meigs Case reports the result of a railway accident. A porter, aged 28, while handcoupling a locomotive, was caught by the heavy iron bar, which was driven through the left arm, fracturing both radius and ulna about 1½ inches in front of the elbow-joint. The radius was also fractured in its middle third, so that a four-inch piece of this bone, completely detached, lay transversly across the wound. Two other small pieces of loose comminuted bone were removed. The median nerve was torn half across; the ulnar artery and the soft parts adjacent were crushed, and the wound was filled with soot. The soft parts were crushed through near the radial attachment of the biceps, so that the forearm hung only by a band of skin less than two inches wide, and a very few unsevered fibres of the supinator longus and the extensor radialis longior, together with the brachio-radial artery, which was uninjured—so that there was a good pulse at the wrist. The patient "feared that the arm would drop off before he got home." Hopelessly crushed tissue was removed; the parts replaced and secured by interrupted sutures; and the arm—held in position by lateral splints of flannel and gypsum—was laid upon a pillow and covered with yeast poultices. At first there was considerable venous hæmorrhage, extensive swelling, and some sloughing of the bruised muscular tissue; but at the end of three months the patient had recovered, with some paralysis of the forearm and slight fibrous ankylosis of the elbow-joint; he is able to carry a pail of water, and handle a shovel or hoe as well as ever. Engravings from photographs, showing the condition of the limb at the time of the accident and after recovery, are appended to the original publication.

Removing Foreign Bodies from the Throat.—Dr. Veeder, of Lyons, New York, writes:—"A loop of ordinary suture wire, which may be readily bent to any shape desired, forms an available means of hooking such articles as pins and needles out of the throat, and has the merit of succeeding sometimes where more elaborate contrivances have failed."—*New York Medical Record*, March 1st.

REPORTS OF SOCIETIES.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, May 16th, 1884.

Dr. T. O. Dudfield, President, in the Chair.

The Sanitary Supervision of Bakehouses.

Dr. Alfred Hill read a paper on "The Sanitary Supervision of Bakehouses, with especial reference to those of Birmingham." After dwelling on the advantages likely to accrue to the public health by the transfer of the duties of supervision from the Factory Inspector to the Medical Officer of Health, Dr. Hill proceeded to state his own experience of the working of the Bakehouses Amendment Act of 1883. In four months he had personally inspected 77 bakehouses, and his inspector 121, making 198. Even at this rate it would be at least twelve months before all had been visited even once, and the question arose how far the Medical Officer of Health might delegate his duties to others. He believed that he might and indeed he must, though retaining his responsibility. Accordingly in Birmingham they had appointed an inspector who was exclusively employed with bakehouses, cowsheds, and milk shops, the numbers of which were about 600, 300, and 2,000 respectively. Dr. Hill's practice was to confer once or twice a week with the inspector, examining his books and otherwise supervising his work. The points to which the attention of the inspector was particularly directed were cubic space ventilation and drainage, the proximity of sleeping apartments, w.c.'s, stables, &c., the general state of repair and cleanliness, and the employment of young persons in contravention of the law, Dr. Hill and the factory inspectors working in friendly co-operation, each frequently furnishing valuable information to the other. Very few of the bakehouses were underground, the great majority being either separate buildings or back kitchens converted into bakehouses. The cubic space averaged 827 feet per head, varying between 190 and 5,000. The drainage was generally good, faults, and these easily remedied, having been found in 12 only. Ventilation was deficient in 20, the opening being closed by the men in their fear of draughts. There were no closets or sleeping rooms in connection with the bakehouses and only once a stable in unpleasant proximity. Dogs were the only animals found in three cases, and a strong smell of mice in one instance. The general state of cleanliness was satisfactory, whitewashing being voluntarily performed every three months as a rule, although painting seemed often to have been neglected. In one case a child, and in others 36 young people and 21 women were found to be illegally employed. The inspector's visit had never been resented, suggestions had been gladly acted on; occasionally a formal notice had been served, but in no case had any legal proceedings been necessary.

The discussion which followed, and in which Drs. Dudfield, Bate, A. Carpenter, W. Simpson (Aberdeen), and Messrs. Murphy, Lovatt, and Cobner took part, turned mainly on the question whether premises where meat and fruit pies were baked came within the scope of the Act. In many places the condition of these premises was filthy in the extreme, and the floors were covered to a depth of an inch or more with a mixture of droppings of flour, bad butter, eggs, &c. In some districts the authorities assumed them to be bakehouses, and dealt with them as such; in others the owners paid no regard to the notices served on them, relying on the letter of the Act, which specified bakehouses for bread, biscuits, and confectionery only. In Aberdeen, Dr. Simpson said, a house condemned as unfit for human habitation had been reopened as a pie-house! And he had seen pastry made in a water-closet.

Dr. Carpenter thought that the notification of infectious diseases enforced in some districts in respect of milk shops, should be extended to baker's shops, as the handling of bread by persons in attendance on small-pox, &c., or convalescent from scarlatina, must be highly dangerous.

Dr. Hill, in reply, said that in Birmingham they had not met with any opposition from the owners of pie-shops, which they considered to be bakehouses, there being a baker's oven; and as to infectious diseases, though they had no by-laws for their compulsory notification, their practice in cases where the parties refused either to close the shops or to send the patients to the hospital, was to station a policeman at the door to inform all customers of the presence and nature of the disease. The most democratic governments are the most arbitrary, and they were accustomed in Birmingham to act regardless of the strict legality of a procedure.

A new Calculating Slide Rule.

Dr. Bate then exhibited an improved form of calculating slide rule, which he had found very useful in statistical work, and read a paper on its use, which will be found in full in another column. It was the invention of Mr. Geo. Fuller, M.I.C.E., and was made by W. F. Stanley, of the Great Turnstile, Holborn. By the combination of a solid cylinder with a hollow one sliding on it telescopically, and three indices, though not 3½ feet long it is equivalent to a straight slide rule of 83 feet long, or a circular rule 13 feet in diameter. In using it all measures must be reduced to decimals, which it works with accuracy to the 4th place.

A visitor observed that Professor Galbraith, of Trinity College, Dublin, had recommended the use of the sliding scale to the students there, giving the preference to a form designed by Major-General Hannyngton, and made by Messrs. Aston and Mander, 25, Old Compton Street, Soho.

INTERNATIONAL HEALTH EXHIBITION.

ARTICLE VII.

Food.

Cocoa and Chocolate.

It is scarcely necessary to remind the medical reader that cocoa is the produce of the Theobroma cacao; a shrub growing wild in Mexico, but which has been cultivated with great success in the West Indies generally. The egg-shaped beans are embedded in a red marrow-like substance, and enclosed in a common capsule. The fruit of the cultivated varieties ripens twice a year and is gathered by coolies. A coolie picks about two bushels daily. The pods are first cut from the tree, a small piece of the stalk being left; the coolie then takes a pod in each hand, knocks them together, which splits each in halves, and then with one draw of his fingers strips all the beans off the centre pulp. The pods are thrown at the foot of the tree and act as a manure. The beans, which at this stage abound in mucilage, are then allowed to ferment. This process is technically called "sweating" and takes from five to nine days; the object of the sweating is to get rid of the mucilage by a sort of putrefaction. At the end of the time the mass looks very disgusting and might be described as a heap of rottenness; but on washing, the beans come out beautifully bright and clean, and have lost a very disagreeable flavour, and the power of germinating. They are now dried, and if all has been successful, the beans have a fine, mild flavour, a cinnamon colour, and a "free" break.

The cocoas shown in the Exhibition, omitting the unground nibs, are "cocoa extracts," "cocoa powders," chocolate, and cocoa mixed with various substances. Cocoa either considered as cocoa, or when mixed with sugar and converted into chocolate, is both a food and a drink. Its high percentage of nitrogenous matters and its very considerable amount of fat, separate it sharply from tea and coffee which it only resembles in containing a crystalline principle "Theobromin," concerning which latter we may in passing remark that recent chemical views have degraded both Theine and Theobromin from the alkaloid class, and shown their strong relationship to uric acid, so that it is more doubtful than ever whether the stimulating effects of tea and coffee have anything to do with the crystalline semi-alkaloid they contain. That cocoa or chocolate has any special exciting properties is open to enquiry, but that the cocoa fat, from its complex composition, may have very important nutritious properties is probable.

Messrs. F. Allen and Sons have an extremely attractive exhibit in the Western Gallery, showing the actual manufacture of confectionery, &c. We have received various samples of their chocolate and cocoa. The chocolate is of good flavour and yielded to analysis 21 per cent. of cocoa fat and ·6 per cent. of Theobromin, which would correspond to about 41 per cent. of real cocoa. The cakes are hard, with a full fracture, and would probably keep for any reasonable time. The chocolate creams were also found of good quality and made of pure materials.

A sample of their homœopathic cocoa is stated to be compounded of cocoa, East Indian arrowroot and cane sugar, and a microscopical and chemical examination confirms this statement.

The well known firm of Messrs. Fry and Sons exhibit chocolate in cakes, cocoa extract and homœopathic cocoa, as well as chocolate creams. The cake chocolate is a very excellent sample of well made chocolate; the cocoa extract, as stated on the label, is the cocoa only partially deprived of its fat; and this we find to be correct. We think that Messrs. Fry have been specially successful in their chocolate confectionery; the latter used to be rather a French speciality, but our English manufacturers are now producing samples quite equal to any French brand.

Messrs. Bensdorp and Co.'s Dutch Cocoa Powder is also extremely good. In short, the different cocoas and chocolates of the firms named above differ only in such minute details of flavour, that it will be a somewhat difficult matter for the jury to say which is superior to the rest.

The Baron Liebig Company show various pleasant tasting cocoas and chocolates; to one of their cocoas they have added "Legumine," with the object, it is presumed, of making it a nutritious food. This cocoa we found to contain 3 per cent. of nitrogen which, if translated into albuminoids, would be equal to about 19 per cent.

Messrs. T. and H. Smith and Co. exhibit some cocoa and milk and chocolate and milk in hermetically sealed tins. The flavour of these tinned products was good; the pastes were neutral in reaction, and contained no trace of metallic contamination.

The Kola Nut.

It is germane to the present article to notice here some of the new food products exhibited by Messrs. T. Christy and Co., 155, Fenchurch Street, in the South Gallery.

The Gourou or Ombené seed, more commonly known as the Kola nut, is of a chocolate brown colour and about the size of a Brazil nut. It is the produce of the *cola acuminata* and is a native of tropical Africa. There is no article of produce which occupies so exalted a social and dietetic position with negro tribes; it is among them a charm, a medicine and a food; it is the propitiatory offering to the living and the dead, to strangers and to gods.

Now that there are indications of future trade with Central Africa, and the Kola nut is procurable, it may become of very considerable importance, for its chemistry, so far as known, shows that the Kola nut stands between cocoa and coffee, and its infusion makes an agreeable and stimulating drink. Samples of Kola nut submitted to us by Messrs. Christy give the following general results. A yellow resin extracted by petroleum ether amounted to ·6 per cent. The alcoholic extract contains 14·42 per cent. glucose, Theobromin, Theine, and an astringent principle. The ash is 2·9 per cent. The amount of Theine was found to be 1·55 per cent. The Kola nut is reputed to be useful in diarrhœa, and to have the properties of allaying hunger and producing endurance of fatigue.

Samples of Liberian coffee, of maté and of the cuca or coca, with several other novel foods and remedies are also exhibited by the same firm.

"Sterilised Soups."

Messrs. Moir and Sons displayed on Saturday samples of their preserved foods in the jury room at the Technical Institute. A tin of mutton which had been out to the Crimea and back and was over 30 years old, was opened, and found to be perfectly sweet and good.

Messrs. Moir have been for some time past preserving soups, fruits and vegetables in upright clear glass jars. The mouths are closed by corks and secured by hermetically sealed metallic caps. In this process, the preserved substances incur no risk of contamination by metals, and any putrefactive change is at once evident. Since all animal broths are feebly acid and most fruits strongly acid, such a method of preservation is infinitely superior to that of preservation in tins, and from a health standpoint is unexceptionable. Looking over Messrs. Moir's attractive exhibit, the scientist is involuntarily reminded that the clear organic liquids of all kinds, arranged in the case, are so many sterilisations, and popularly exemplify the truth of one of the most important modern theories.

THE LABORATORY OF M. PASTEUR, &c.

On Saturday, Jury No. 5 paid a visit to the West Central Galleries and closely examined the apparatus exhibited by M. Pasteur. M. Roux explained to the Jury in great detail the methods of sterilisation adopted, and showed various cultivation flasks. In this exhibit there are tubes of the attenuated anthrax virus, which it will be remembered Dr. Klein (12th Report of Medical Officer to the Local Government Board, Supplement) examined with far from satisfactory results. There is also a very good improved form of hypodermic syringe, made especially for the inoculation of cattle. M. Roux stated that 4,000 cattle have, by means of similar syringes, been inoculated in a day. The sterilising tubes, flasks, and incubators exhibited are not novel, and are well-known to all engaged in biological research.

The Municipal Laboratory of Paris have a stand made attractive with glass and bright metal. It may impress all, save those who are intimately acquainted with the instruments and methods used by the English food analysts; by the latter the exhibit will be pronounced rather behind than in advance of the times.

Mellin's Food.—Mr. Mellin writes to call our attention to the fact that explicit directions are given with each bottle that the food should be only used *with* milk. Our remarks on this head last week were, we regret, open to misconstruction.

GENERAL CORRESPONDENCE.

HYDRO- AND PYO-SALPINX.

[To the Editor of the Medical Times.]

Sir,—The statements that some of my patients have been under treatment in Guy's Hospital were made by the patients themselves. As a matter of accident, I have had no occasion to enquire into the accuracy of the statements concerning Guy's; but as I have done so about similar statements concerning many other hospitals and have found them substantially accurate, I have had no reason to doubt those affecting Guy's. But it is wholly immaterial whether they are accurate or not. The important question is this—is it likely that diseases so common elsewhere are quite or almost non-existent at Guy's? An affirmative answer involves such a contradiction of the doctrine of chances, that I for one cannot accept it. I prefer to believe that they exist at Guy's, as I said, to the extent of perhaps a score of cases at the present time, most of them probably wearing the ineffectual and detrimental pessary.

The question asked by Dr. Horrocks about the possibilities of the diagnosis in these cases, I have already answered, as well as I know how to do it, in more than one of my papers on the subject, and therefore I need not return to it here.

I propose to take one or two other points raised by this discussion, if you will kindly allow me space in your columns, within the next few weeks.

I am, &c.,

Birmingham, June 23. LAWSON TAIT.

THE COLLEGE OF PHYSICIANS AND ITS FELLOWSHIP.

[To the Editor of the Medical Times.]

Sir,—One of your correspondents recently expressed a hope that some of the members of the College of Physicians admitted in 1860, might be elected to the fellowship. Probably, a better suggestion would be that members of 25 years' standing might be allowed to submit their names to a general meeting of the fellows for election. Thus, the present year would comprise the group of members admitted to the College by examination prior to 1859, while next year would include the much larger body of members admitted without examination in 1860. Afterwards, the same privilege to extend to all members who shall survive 25 years of membership, although they may previously have been rejected for nomination by the Council. Such arrangement need in no way affect the present early nomination of the fittest by the Council, but would secure a fair prospect to most, so inclined, of ultimately being included in the honourable fellowship of the College.

I am, Sir, yours, &c.

A MEMBER.

London, June, 1884.

MEDICAL NEWS.

University of Dublin. (*School of Physic in Ireland*).—At the Trinity Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday, June 9, and following days, the successful candidates passed in order of merit as follows:—

Henry T. Bewley, Louis J. Werner, John S. Fenton, Samuel Hickson, William M. Hewson, Telford Smith, Daniel R. O'Sullivan, and Henry Shackleton, equal, William T. Swan, Thomas Parr, Henry A. Ellis, Baptist G. Frith, William Grandy, Nicholas C. Ferguson, George Scarr, George W. Powell, William Lacy-Hickey, Joseph V. Manning.

At the Trinity Term Examination for the Degree of Bachelor in Surgery (B.Ch.), held on Monday, June 16, and following days, the successful candidates were placed in order of merit as follows:—

Louis Werner, Henry T. Bewley, John S. Fenton, Samuel Hickson, and Thomas Parr, equal, William M. Hewson, William T. Swan, Reginald J. Windle, Nicholas C. Ferguson, and Robert Morrow, equal, George William Powell, Hugh N. Kenny.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 19th, 1884:—

Reginald Bean Anderson, St. Mark's Road, Notting Hill, W.; Reginald Treacher Bowden, Tenbury, Worcestershire; Frederick Bryan, Chantry Road, Brixton; Jno. Woodward Crowther, The Villas, Silverdale; Henry Fooks, 3, Kempsford Road, S. E.; Jno. Hughes-Jones, 102, Petherton Road, N.; George Henry Weston, Sidlaw Terrace, Bognor.

The following gentlemen also on the same day passed their primary professional examination:—

Henry R. Evans, St. Thomas' Hospital; Arthur William Veness, Westminster Hospital.

The Princess of Wales has fixed July 14th for the ceremony of opening Miss Mary Wardell's Convalescent Home for scarlet fever, at Brockley Hill, Stanmore.

The Deputy-Coronership of Westminster.—Mr. Langham has resigned this office which he has held since 1849, but it is understood that, should the duties of his new office permit, he will continue to act as deputy for Westminster, pending the election of his successor.

University of Oxford.—The degree of B.M. has been conferred upon the following:—William Augustine Ellison, and Bertram Hunt, University; Reginald John Ryle, Trinity; Frederick Augustus Dixey, Wadham; Oliver Scattergood, and Arthur Molineux Jackson, Queen's; and Robert Holman Peck, Exeter.

Animal Vaccination.—Owing to the enormous number of applicants for vaccination and re-vaccination, the Government department, presided over by Dr. Cory, have opened a

branch establishment at 85, Southampton Row, W.C., for men only; the head establishment at Lamb's Conduit Street being reserved for women and children.

Alleged Death from Overwork at School.—A coroner's inquest was held at Dudley, on Tuesday, respecting the death of a little girl who attended a Board School. She complained on Saturday last of headache caused by her lessons, became alarmingly ill next day, and died before a doctor could be sent for. The jury returned a verdict of death from natural causes, accelerated by overwork at school.

Outbreak of Enteric Fever.—An alarming outbreak of typhoid fever is reported to have occurred at Mr. Muller's Orphan Asylum, Ashley Down, near Bristol, where there are fully 2,000 children, 70 cases and four deaths having already occurred. This is the third outbreak within recent years, and the managers have been advised to discard the present water supply from the wells, but as chemical analysis has not condemned them, they have hitherto declined to do so. The managers have been urged to call in a sanitary engineer for a thorough examination of the buildings.

Messrs. W. Hill and Sons, of Bishopsgate Street, formally opened on Saturday a model bakery at Alexander Street, in the presence of several medical officers of health and hygienists. The bakehouses are well-lighted and ventilated, contamination by sewer air is impossible, and the bread is entirely made by machinery. After luncheon, Dr. Tripe, Dr. Lovett, Mr. Wynter Blyth and Mr. Lakeman, Inspector of Factories, made some remarks on the general subject, and recommended the encouragement of large bakeries, in which the proper and expensive plant for the cleanly preparation of bread could alone be installed.

Naval Medical Department.—The following appointments have been made:—Deputy Inspector-General Belgrave Ninnis, M.D., to the Chatham Division of Royal Marines; Staff Surgeon J. Wood, to the *Swift*. Surgeons—J. Acheson, M.D., to the *Jackal*; R. E. Biddulph, to the *Vigilant*; William M. Craig, M.B., to the *Alecto*; George J. Fogerty, to the *Banterer*; John L. Barrington, to the *Ready*; William Tait, M.B., to the *Cambridge*; John O'Callaghan, George Bate, Joseph H. Whelan, M.D., to the *Alexandra*, additional; Michael J. McCarthy, M.D., to Plymouth Hospital; Henry F. Iliewicz, to the *Ganges*.

Vaccination and Small-pox.—The National Health Society (44, Berners Street, W.) having invited the criticism of the Local Government Board upon the little pamphlet entitled: Facts concerning Vaccination for Heads of Families, which the Society has prepared for house to house distribution through the agency of the district vaccination officers, an official letter, dated 19th instant, has been sent from that department stating that the Board have been glad to comply with the request of the National Health Society, and making certain suggestions for the improvement of the pamphlet. The Board have already sanctioned in a number of instances the repayment of the expenses for distribution of the pamphlet out of the Metropolitan Common Poor Fund, and it may now therefore be fairly regarded as an official publication on the subject of which it treats.

Small-Pox in London.—A circular has been issued to boards of guardians from the Local Government Board urging that in many districts it will be advisable to appoint a staff of assistant vaccination officers to make a house-to-house visitation, with the view of securing the vaccination of unvaccinated children, and of inducing persons who have not been already re-vaccinated to become so. It is further suggested that a statement of the advantages of vaccination and re-vaccination should be left at each house, while means should be taken to obtain information of every fresh case of small-pox. In addition to the usual weekly attendances at the vaccination stations, special evening attendances should be appointed, to suit the convenience of artisans and others who cannot conveniently resort thither in ordinary working hours. Attendances oftener than once a week may sometimes usefully be appointed to take place at the stations, and even attendances on every day at a fixed hour for the vaccination of persons known to have been exposed to exceptional risks of small-pox. In particular cases where small-pox actually exists in a house—especially in a sub-let or tenement house—it will be desirable for the public vaccinator, or his appointed deputy, immediately on receiving information of the outbreak to proceed to the infected house and there perform any needed vaccination or re-vaccination.

Anderson's College, Glasgow.—The annual meeting of the trustees of Anderson's College, Glasgow, was held yesterday afternoon, when Dr. Andrew Fergus, the president, occupied the chair. It was stated in the report, which was adopted, that the other bodies embraced with the College in the scheme prepared under "The Educational Endowments Act" had approved of a proposed grant of 5,000*l.* to the Medical Faculty on its separation from the institution. The number of students attending the College during the past Session was given at between 2,000 and 3,000. It was unanimously agreed to elect as trustees Messrs. W. M'Call, J. C. M'Ewen, and T. B. Mathieson. The election of Dr. James Christie as Professor of Physiology was sanctioned, and the occupants of the other chairs were re-appointed. It was provided, however, that, in the event of the scheme mentioned becoming law, the Medical Faculty should be bound to remove from the College when required to do so. The other business was of a formal character.

The Synthesis of Xanthine.—M. Armand Gautier, who is expected to succeed Professor Wurtz at the Faculté de Mèdecine, and who has been so long engaged in researches on xanthine, uric acid, and sarcine bodies, so intimately related and convertible within the economy, has just announced to the Académie de Mèdecine (*Bulletin*, June 17), that he has succeeded in producing xanthine by synthesis. Hitherto, the repeated efforts which have been made to effect a synthesis of any one of these three substances have been fruitless. Xanthine is one of the bodies which result normally in living beings from the oxidation of albuminoid bodies, differing by one atom less of oxygen from uric acid, and by one atom more of oxygen from sarcine. This production of xanthine beyond the forces of the living economy is the first decisive step in the synthesis of albuminoid matters. M. Gautier accomplished this by heating hydrocyanic acid mixed with water, and acetic acid to a temperature of from 140° to 150° C.

The Sanitary State of Calcutta.—The Calcutta correspondent of the *Times* telegraphs that the action, or rather inaction, of the Calcutta Corporation with respect to the sanitation of the town is attracting much attention. The Surgeon-General of Bengal, in a correspondence lately published, expressed the opinion, first, that the steps recently taken for sanitary improvement were inadequate; secondly, that the cholera and smallpox mortality during last March and April was abnormal and alarming, and that there was likely to be a recurrence of the same state of things next year; thirdly, that the Municipal Commissioners as a body were not qualified to judge what special sanitary measures were most required, or to realize the responsibility under which they lay as regarded the condition of the unhealthy portions of the city; and fourthly, that the only hope of real improvement would consist in the appointment of a select body of experts, outside the Corporation, who would be capable of forming an opinion, at once scientific and independent, on the requirements of the case, and on the best practical manner of meeting them, and whose recommendations might be immediately carried out by order of the Government. The municipal council admit, we believe, that the state of things needs remedying, but they are at present without a health officer to advise them, and meanwhile everything is at a standstill. The appointment has been advertised, and we hope that a competent officer, skilled in sanitary work at home, will be appointed, who will be able, by the force of his character and the weight of his opinion, to induce the Commissioners to take all the needful steps.

A Doubtful Practice.—"It appears to be the custom among certain instrument-makers in this, and, we presume, other cities, to give the physician who sends them a patient to be fitted, a certain per cent. on the profits."—*New York Medical Record*, May 31st.

COUNTERFEIT SARDINES IN COURT.—The tricks of trade are frequently divulged in court when the partners in the deception fall out with each other. It appears that in the United States sardines command about 50 per cent. higher price than the fish caught in American waters. There is, therefore, a great temptation to pack the latter in boxes with French labels. A contract was made by a firm in New York for a large lot of "domestic" sardines with "fancy" labels, that is, labels stating that the sardines were packed and caught and packed in France. For some reason the sardines were not accepted when tendered and a suit was brought for their value. In defence, it was alleged that the contract was void, being against public morals, and could not be upheld. This was the view taken by the Court, which held that the practice was a dishonest imposition upon consumers who were without knowledge of the deception. It was said by the judge, "Consumers may not be wronged by eating American sardines while they think they are eating French. One may be as wholesome and savoury as the other, but undoubtedly the labels are not used to instil this information into the minds of eaters. They are used to get a higher price that would be given if the label told the fact as to the origin of the fish."—*New York Medical Record*, May 24.

STRATFORD-UPON-AVON.—On Saturday, June 21st, the new hospital in the Alcester Road was opened. It is a handsome red brick building, consisting of a central administrative block, and east and west wings for the male and female patients respectively. There are five wards in each wing, all on the same floor, viz.: at the end of the corridor a large ward for six beds, there are two other wards for three beds a-piece, a separate ward for three beds, and one convalescent ward. Thus each wing is to accommodate fifteen patients. The average height of the wards is 14 feet, and 1,260 cubic feet of space is the allowance per patient. The sanitary arrangements of the hospital would appear to be in every way satisfactory. The furniture and fittings are very complete, and the whole building reflects the greatest credit on the donors Mr. and Miss Gibbins.

APPOINTMENTS.

BALFE, J., L.R.C.P.—Medical Officer to the Norwich Friendly Societies' Medical Institute.

BECKETT, FRANCIS MEARS, M.R.C.S. Eng., and L.S.A.—Medical Officer to the Workhouse Ely Union, *vice* Mr. G. M. Sinclair, deceased.

BUTLER, WILLIAM JOHN, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.—Medical Officer to the Castle Donington District, Shardlow Union, *vice* Mr. J. W. G. Sellow, resigned.

CARSON, J. S., M.B.—Medical Officer to the Norwich Friendly Societies' Medical Institute.

CASE, PERKINS WILLIAM PERKINS, M.D. and M.C. Edin.—Medical Officer to the Fourth District, Croydon Union, *vice* Dr. Barnes, resigned.

CAVE, E. J., M.R.C.S.—Resident Medical Officer to the Royal United Hospital, Bath, *vice* M. W. H. Russell, M.R.C.S., resigned.

CHANCE, ARTHUR J., L.R.C.S.I.—Surgeon to the Jervis Street Hospital, *vice* J. S. Hughes, deceased.

CLARK, W. R., M.B.—Assistant Medical Officer to the Eastern Hospital.

COOPER, H. C. E., M.R.C.S.—Resident Medical Officer to the Hospital for Diseases of the Throat, Golden Square.

DEY, ALEXANDER, M.B. and M.C., Aberdeen.—Medical Officer to the Chatton District, Glendale Union.

GREENSILL, J. H., M.R.C.S.—Resident Medical Officer to the Guest Hospital, Dudley, *vice* C. J. Muriel, M.R.C.S., resigned.

HAWTHORN, FREDERICK, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A. Lond.—Medical Officer to the Leigh District, Uttoxeter Union, *vice* Mr. H. O. Hawthorn, deceased.

HYNE, F. A.—Honorary Medical Officer to the Jersey General Dispensary.

JONES, WILLIAM REES, M.B. and C.M. Glas.—Medical Officer to Defynock District, Brecknock Union, in succession to W. Clay Jones, deceased.

MACLAREN, JAMES ALEXANDER, M.B. and M.C.—Medical Officer to the Stickney District, Spilsby Union, *vice* Dr. Greinoldsby, resigned.

MAITLAND, A. D., M.R.C.S.—Senior House Surgeon to the Sunderland Infirmary, *vice* E. F. Flynn, L.K.Q.C.P.I., resigned.

MALTBY, A., M.R.C.S.—Assistant House Surgeon to the Royal South Hants Infirmary, *vice* — Roberts, L.S.A., resigned.

MCDERMOTT, WILLIAM, M.D.Q. Univ. Ire., M.R.C.S. Edin.—Medical Officer to the Sixth District, Sudbury Union, *vice* Mr. C. W. Whistler, resigned.

MILLER, A. H., L.R.C.P.—Medical Officer to the Norwich Friendly Societies' Medical Institute.

MILLIGAN, R. A., M.R.C.S.—Surgeon to the General Infirmary, Northampton, *vice* G. F. Kirby Smith, F.R.C.S., deceased.

MOORE, JOSEPH, M.R.C.S.E., L.S.A., L.R.C.P. Edin. and L.M.—Medical Officer to the Middlewich District, *vice* James Hughes, deceased.

PEARSON, ALFRED WILLIAM, L.R.C.S. and L.R.C.P. Edin.—Medical Officer to the Kingswinford No. 3 District, Stourbridge Union, *vice* Mr. John Parrish, deceased.

PHILLIPS, F. W. B., B.A., B.Sc. Lond.—Assistant Medical Officer to the Eastern Hospital.

SUTTON, JOHN RICHARD HENRY, L.R.C.S.I., L.K.Q.C.P.I. & L.M.—Medical Officer to the Fourth District, Aylesbury Union, *vice* Charles Spencer, resigned.

WATSON, HENRY, M.D. and M.C. Aberdeen.—Medical Officer to the Fifth District, Norwich Union, *vice* Mr. T. T. Breese, resigned.

YOUNG, ADAM, L.R.C.S., Eng., L.R.C.P. and L.M., Lond.—Medical Officer to the Workhouse, *vice* Mr. R. M. Rathill, resigned.

VACANCIES.

BASFORD UNION.—Medical Officer to the Wilford District, in succession to Dr. John Hall, deceased. Area, 11,376 acres. Population, 5,059. Salary, £35 per annum.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY.—House Surgeon. Salary £100 per annum, with board, lodging, fire and light. Candidates must be registered to practice both in medicine and surgery, unmarried, and free from the care of a family. They must have a knowledge of the Welsh language, and will be required to enter into an agreement not to practice in the County of the Borough of Carmarthen for a period of five years. Applications, with testimonials, as to ability and character, to be sent to Mr. H. Howells, 11, Morley Street, Carmarthen, on or before July 12th.

DAVENTRY UNION.—Medical Officer to Third District, in succession to Mr. F. B. Swann, resigned. Area, 10,308 acres. Population, 3,808. Salary, £55 per annum.

DUDLEY DISPENSARY.—Resident Medical Officer. Salary, £130 with residence. Candidates must be Fellows or Members of the Royal College of Surgeons, England, Edinburgh, or Dublin, and hold a Medical and Surgical Diploma, and be registered. Applications with testimonials to be sent to Henry C. Brettell, Hon. Secretary, before July 1st. The election will take place on July 9th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, SHADWELL, E.—Assistant Physician. (*For particulars see Advertisement.*)

GAINSBOROUGH UNION.—Medical Officer to the Haxey District, in succession to Mr. Thomas Stones, resigned. Area, 8,113 acres. Population, 1,982. Salary, £26 per annum.

KENSINGTON DISPENSARY.—Resident Medical Officer. (*For particulars see Advertisement.*)

QUEEN'S COLLEGE, BIRMINGHAM.—Professorship of Anatomy. Salary £262 10s. per annum. Applications with testimonials, to be sent to the Secretary, Joseph Lewis, 21, Paradise Street, Birmingham (from whom further particulars can be obtained), on or before June 30th.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Medicine. (*For particulars see Advertisement.*)

WEST LONDON HOSPITAL, HAMMERSMITH, W.—Assistant Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, and not practising as apothecaries. They are requested to attend a meeting of the Medical Council on July 1st, at 3.30 o'clock p.m. The election will take place on July 7th. Applications and copies of testimonials to be sent to the Secretary not later than June 30th.

DEATHS.

BISHOP, THOMAS, M.D., F.R.C.P., at 16, Rue Pierre Charron, Paris, on June 23rd.

RENTON, J. C. F., L.S.A., of 2, Roslyn Terrace, Hampstead, at Highbury, on June 23rd, in his 68th year.

THOMPSON, THOS., L.R.C.P., &c., of Sedgefield, Durham, on June 15th, aged 29.

WOOLDRIDGE, WILLIAM, M.R.C.S., L.S.A., at Laine House, Withdean, Brighton, on June 24th, in his 81st year.

NOTES, QUERIES, AND REPLIES.

A PHYSIOLOGICAL QUESTION.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—Can you refer 'Enquirer' to *any authority* who can explain or give an answer to the following question:—"Do touch proper, Temperature and Pain, seem to you different modes of one skin-sensibility, or different kinds of sensibility (like Taste and Smell?) *Give reasons.*"

ENQUIRER.

[TO THE EDITOR OF THE MEDICAL TIMES.]

SIR,—In addition to the three instructions recommended by the Committee of the Ophthalmological Society of the United Kingdom appointed to enquire into the cause or prevention of blindness from ophthalmia neonatorum, published in your issue of the 14th instant, may I suggest a fourth instruction and that is: *Directly* a child is born to wipe its eyes with a soft cloth, particularly each inner canthus or corner, using in the act of wiping gentle pressure rather than friction. It may be added to or commence the first instruction.

I am, Sir, yours &c.

Sussex, June 24th, 1884. WILLIAM ELLIOTT PORTER.

COMMUNICATIONS RECEIVED—

Prof. Gairdner, Glasgow; Dr. Willoughby, London; Dr. Stephen Mackenzie, London; Dr. O. Sturges, London; Dr. Wolfe, Glasgow; Our Belfast Correspondent; Mr. Chatto, London; Mr. Wynter Blyth, London; The Secretary of the Apothecaries' Society, London; Dr. Champneys, London; Dr. Shelly, Hertford; The Secretary of the Medico-Psychological Association, London; Mr. Lawson Tait, Birmingham; The Chairman of the Improved Industrial Dwellings Company, London; Mr. John Bakers, London; Mr. G. Mellin, London; The Secretary of the National Health Society, London; The President of St. Thomas's Hospital, London; Dr. MacAlister, Cambridge; Messrs. Loeflund & Co., London; Mr. Wm. Hay, Hull; Messrs. Essinger & Neuburger, London; Messrs. Henry Main & Co., Manchester; Messrs. Mayer & Meltzer, London; Mr. Clark Bell, New York; The Secretary of the International Health Exhibition, London; Mr. R. Moate Soutter, London; Messrs. W. Hill & Co., London; The Registrar-General for England, London; The Sanitary Commissioner for the Punjab, Lahore; The Secretary of the Obstetrical Society, London; Mr. Cowell, London; The Registrar-General, Edinburgh; Dr. Hebb, London; Our Vienna Correspondent; Mr. Sheraton, Ferryhill; The Hon. Secretary, Ophthalmological Society, London; Mr. Thos. Laurie, London; Mr. A. Kingston, Royston; Mr. F. Koeune, Twickenham; Dr. Porter, Lindfield; Mr. J. Geo. Brass, Barnard Castle; Dr. Alfred Hill, Birmingham; Messrs. W. Hill and Son, London; The Hon. Secretary, Society for the Study, &c., of Inebriety, London; Dr. Burney Yeo, London; Mr. J. Hampden Shoveller, London; Dr. A. N. Turner, London; Enquirer.

BOOKS RECEIVED—

Memoria Sulla Cura Della Scollomento Della Retina, pel Dottore Raffaele Castorani—Report on the Health, &c., of Kensington, from May 18 to June 14—Annual Report of the Borough of Maidstone—The Metropolitan Asylums Board, Ambulance Arrangements—Manual of Chemistry, by R. A. Witthaus, A.M., M.D.—Diseases of the Rectum and Anus, by C. B. Kelsey, M.D.—Series of Diet-Rolls for Special Diseases, by H. J. Philpot, L.R.C.P., M.R.C.S., &c.—Report on the London Water Supply—Female Education from a Physiological Point of View, by John Thorburn, M.D.—Work and Worry, by W. Henry Kesteven, M.R.C.S., L.S.A.—The Hot Springs of the Cape of Good Hope—Homburg, by H. S. C. W. Heyd, M.D.—State of the Lincoln Lunatic Hospital for 1883—Abstracts of Medical and Surgical Cases treated at the General Hospital for Sick Children, Pendlebury, Manchester, during 1883—Annual Report of the General Hospital and Dispensary for Sick Children, Manchester.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Révue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Centralblatt fur Gynakologie—Le Concours Médical—Centralblatt für Klinische Medicin—Philadelphia Medical News—Le Progrès Médical—New York Medical Journal—Students' Journal and Hospital Gazette—New York Medical Record—The Edinburgh Clinical and Pathological Journal—The Philadelphia Medical Times—Centralblatt für die Medicinischen Wissenschaften—Berliner Klinische Wochenschrift—Maryland Medical Journal—Weekblad—The American Journal of Obstetrics—The Medico-Legal Journal—North Carolina Medical Journal—Correspondenz-Blatt—Revue D'Hygiène—Boy's Own Paper (Summer Number)—Girl's Own Paper (Summer Number)—The Medical Temperance Journal.

APPOINTMENTS FOR THE WEEK.

Friday, June 27 (this day).

Operations at St. George's (ophthalmic operations), 1½ p.m.; Guy's 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College, 2 p.m.; Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Saturday, June 28.

Operations at King's College, 1 p.m.; St. Bartholomew's, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.; Middlesex, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.

Monday, June 30.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; Hospital for Women, 2 p.m.; Royal Orthopædic, 2 p.m.

Tuesday, July 1.

Operations at Guy's 1½ p.m.; Westminster, 2 p.m.; West London, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic 2 p.m.; Royal South London Ophthalmic 3 p.m.; St. Mark's Hospital, 9 a.m.

Society for the Study and Cure of Inebriety, 4 p.m.—The adjourned discussion on the Papers of Dr. W. B. Carpenter, F.R.S., and Mr. Axel Gustafson, will be opened by Mr. Jabez Hogg, in the rooms of the Medical Society of London.

Wednesday, July 2.

Operations at Middlesex, 1 p.m.; St. Mary's, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Bartholomew's, 1½ p.m.; University College, 2 p.m.; London, 2 p.m.; Great Northern, 2 p.m.; King's College (ophthalmic operations), 1 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Central London Ophthalmic, 2 p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland Street, 10 a.m.

Obstetrical Society of London, 8 p.m.—Specimens, &c., will be shown by Dr. Cleveland, Dr. Walter, Dr. Galabin, Dr. Godson, and Mr. W. S. A. Griffith. Papers—Dr. Lediard, "Fibro-cystic Myoma of Uterus;" Dr. John Williams, "Note on a Condition observed in the Navel Cord of a Young Infant;" Dr. John Williams, "Note on the Involution of the Puerperal Uterus in the Absence of the Ovaries;" Dr. Matthews Duncan and Dr. Hurry, "On Retroflexions of the Fœtus."

Thursday, July 3.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing Cross, 2 p.m.; London, 2 p.m.; North West London, 2½ p.m.

Ophthalmological Society of the United Kingdom, 4 pm.—Mr. Nettleship, "Cases of Retro-ocular Neuritis;" Mr. J. B. Lawford, "Amblyopia, &c., ending in Recovery;" Mr. Adams Frost, "Irido-choroiditis, Ciliary Staphyloma, Sympathetic Ophthalmitis after the Excision;" Mr. Jonathan Hutchinson, "On a Rare Form of Proptosis with Gland Enlargement."

Friday, July 4.

Ophthalmological Society of the United Kingdom.—At 8 p.m., Living and Card Specimens:—Mr. S. Snell, "Bony Tumour of Conjunctiva;" Dr. Walter Edmunds, "Drawing of Optic Disc from a Case of Tumour of Brain;" Dr. Brailey, "A Case of Sympathetic Neuro-retinitis;" Mr. Anderson Critchett, Operation Cases (1) "Conical Cornea," (2) "Tattooing and Iridectomy for Leucoma;" Messrs. A. Critchett and Juler, "Result of Strabismus Operation." At 8.30 p.m., Communications:—Mr. S. Snell, (1) "Some observations on Miner's Nystagmus," (2) "On Certain Congenital Defects of the Eye;" Dr. Walter Edmunds, and Mr. J. B. Lawford, "An Analysis of Cases of Intra-ocular Tumour with respect to the existence of Optic Neuritis;" Mr. Spencer Watson, "Severe Concussion of the Brain followed by temporary Blindness with Anosmia;" Mr. Nettleship, "Case of Hæmorrhagic Glaucoma, Pseudo-glioma, Death from Meningitis."

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